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Traditional Management of Gastrointestinal Minor Discomforts during Pregnancy

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ABSTRACT: Every system in the body is adjusted and affected by pregnancy. However, some minor discomforts may accompany even a normal pregnancy. Nausea, vomiting, heart burn, ptyalism, pica, bleeding gums, constipation, flatulence, and hemorrhoids refer to digestive system minor discomforts of pregnancy, but the most common are, morning sickness, heart burn and constipation. This study aimed at identifying the traditional management of gastrointestinal minor discomforts during pregnancy. The study was conducted on 300 pregnant women attending six maternal and child health centers in Tanta City, where 50 women were chosen from each setting. A specially designed interview schedule was used to collect the socio-demographic data, history of gastrointestinal minor discomforts during present and previous pregnancy, and women practices to overcome them. The results revealed that morning sickness was the most significant complaint during previous and current pregnancies (70% & 60%, respectively), followed by heart burn (64% & 52.7%, respectively), then constipation (53.3% & 51%, respectively). It was found that the majority of the studied subjects used harmful practices to relieve morning sickness such as eat salty food and pickles, induce vomiting, drink boiled fenugreek seeds. The majority of the subjects did harmful practice to relieve heart burn in the form of eating green fenugreek or lettuce, vicia faba or luppinus, drinking sodium bicarbonate dissolved in water and taking antiacid without any prescription. Useful practices to relieve constipation were reported by slightly more than one-third of the subjects. It involved increasing intake of chicory, vegetables, and fruits as well as increasing intake of fluids, milk, and yogurt. Women's practices to relieve morning sickness and heart burn were significantly influenced by their education ($x^2 = 8.442$, $p= 0.0157$ & $x^2 = 13.987$, $p= 0.0073$, respectively). Better educated women had more tendencies to use useful practices, while women with limited educational background had more tendencies to use harmful ones. The results of the present study also revealed a significant relationship between women's practices to relieve morning sickness and constipation and their occupation ($x^2 = 8.306$, $p= 0.0175$ & $x^2 = 7.189$, $p= 0.0275$, respectively).

INTRODUCTION

Pregnancy is not a disease; it is a normal, unique, and powerful experience. A normal process results in a series of both physiological and psychological changes in women. During pregnancy, a series of enormous physical, hormonal, and emotional changes take place over a relatively short period. The body has to adapt to carry up to 20 lb (±9 Kg) of baby, water, and placenta, which can impose physical strain on all the organs and tissues[1, 2].

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Most women experience in their pregnancies, whether normal or not, several minor discomforts. Minor discomforts are slight ailments of pregnancy that lead to lack of comfort rather than disabling the pregnant woman. Although they are not serious, their presence detracts from the mothers feeling of comfort and well being especially if they occur daily and make her wonder if she will ever feel like herself again[3,4].

All body systems are affected by pregnancy. One of the effected systems is the digestive system[5,6]. The main gastrointestinal minor discomforts are: morning sickness, heartburn, and constipation[7]. In many instances, they can be avoided by preventive measures or healthful practices once they do occur. Pregnant women usually deal with their minor discomforts through widespread traditional practices in their community [2, 7].

Traditional practices refer to anything that individuals do on their own behalf to promote or improve their health status. Traditional ideas pass from one generation to another, but some of them can be modified by the woman's new experiences and new knowledge. They can include traditional medical practices and folk or popular remedies [8].

Endogenous or traditional practices constitute one type of folk medicine. They are found in almost every household and are given various degrees of importance by mothers. In general, these practices are more widely employed in developing countries, particularly in rural areas, where health facilities and health education are still beyond the reach of the majority of population. These practices have a deeply rooted customary aspect. They constitute a major influence on the health of the individual and of the community. Certain traditional practices are no doubt useful, others are harmless and some are surely dangerous[9,10].

Egyptian women especially who live in rural areas still stick to their old traditional

and ancient pattern of life specially the inherited primitive prescriptions for treatment of minor discomforts that occur during pregnancy. Some of these practices have proven beneficial and should, therefore, be further promoted. Others are either useless or decidedly harmful and should obviously be discouraged[11]. By revealing these practices, it would be possible to exclude harmful practices and encourage useful ones. Therefore, this study was done to explore the practices adopted by pregnant women to relieve their gastrointestinal minor discomforts.

AIM OF THE STUDY

The aim of this study is to identify the traditional management of gastrointestinal minor discomforts during pregnancy.

MATERIAL AND METHODS

This was an exploratory descriptive study that identified different traditional practices among pregnant women to overcome their gastrointestinal minor discomforts in Tanta City. The study was conducted in six Maternal and Child Health Centers representing the different health zones concerned with provision of maternity care to different districts in Tanta City. These MCH centers are: Tanta Awal, Tanta Thany,Tanta Thaleth, Tanta Rabae, Tanta Khames, and the Medical center.

A Convenient sample of 300 pregnant women; 50 from each of the previously mentioned settings constituted the study sample. The subjects were selected according to the following criteria: - Multiparae. - Free from any apparent medical diseases - Free from any obstetrical complications with pregnancy - Free from any family history as: D.M., hypertension.

Tool of data collection:

A specially designed interview schedule was developed based on the review of literature. It was used by the researcher to collect the necessary data about the study subjects. It entailed the following items:

1. Socio-demographic data such as: age, level of education, occupation.

2. History of gastrointestinal minor discomforts during present pregnancy and previous pregnancies.
3. Women's practices to overcome these gastrointestinal minor discomforts and sources of their information are comprised in this part.

The tool was revised for content validity by ten experts in the field. The recommended modifications were done consequently.

The interviews were carried out according to the interview schedule. The average number of interviews were 4 to 5 women per day and the time taken for each sheet to be completed was 10-20 minutes depending upon the degree of understanding and response of the interviewee.

Data analysis

The data were coded and transferred to special designed formats to be suitable for computer feeding. Frequency analysis, cross tabulation, and manual revision were all used to detect errors. The EPI INFO statistical program was utilized for both data presentation and statistical analysis of the results. The descriptive statistical measures were used including count, percentage, arithmetic mean, standard deviation, minimum, and maximum. Statistical tests included chi-square test for analysis of qualitative variables. The level of significance selected for this study was P less than 0.05.

RESULTS

Table 1 illustrates the distribution of the study subjects according to their socio-demographic characteristics. It was found that more than three-fifths (64.3%) of the mothers were 25 years old or more, while 35.7% of them were less than 25 years old. The mean age was 27.44 ± 5.36.

Concerning their level of education, it was clear that nearly one-half (48.0%) of them had less than university education. While, slightly more than two-fifths (41.0%) were illiterate. Only 11.0% of them had

university education. The table also reveals that the majority (83.7%) of the subjects were housewives, while 16.3 % were working.

Table 2 shows distribution of the study subjects according to the occurrence of common gastrointestinal minor discomforts during their previous and present pregnancies. It was observed that more than two-thirds (70.0%) of the subjects had morning sickness during their previous pregnancies, while three-fifths (60.0%) of them had experienced it during their current pregnancy. It was noticed that more than three-fifths (64.0 %) of the subjects had heart burn during their previous pregnancies and 52.7% of them during their current pregnancy. Constipation was a complaint in more than half (5303 % & 51.0%) of the subjects during their previous and current pregnancies, respectively.

Table 3 shows the distribution of the study subjects according to their practices to relieve morning sickness. As regards harmful practices, it was found that 33.3% of the study subjects ate salty foods and pickles, 24.0% decreased fluid intake, 10.0% had used anti-emetic without medical prescription, 6.7% avoided taking breakfast and decreased the number of their meals per day, while 4.7% of them induced vomiting, and 3.3% drank herbs as boiled fenugreek seeds.

Regarding useful practices, it was noticed that 13.7% of the study subjects used useful herbs in form of anise, caraway, and fennel, while 13.0% of them ate dry crackers and/or ate plain biscuits with cup of tea or milk before getting out from bed, 6.0 % of them drank peppermint, while 4.0% and another 4.0% of subjects drank boiled ginger or chewed cloves or cardamom, respectively. On the other hand, it was observed that only 12.7% of the study subjects had ignored this minor discomfort.

Table 4 shows the distribution of the study subjects according to their practices to relieve heart burn. As regards harmful

practices, it was reported that 40.7% did ate lettuce or green fenugreek, while 36.7% took antacid without prescription, 25.0% of study subjects ate vicia faba or lupinus, 18.3% & 17.3% of subjects drank fenugreek or sodium bicarbonate dissolved in water, respectively.

Concerning useful practices, it was noticed that 23.3% & 12.7% of the subjects drank hot milk or took yogurt, respectively, while about 10.3% avoided greasy, spicy, and fried food, 5.0% & 4.7% of subjects avoided sleeping after meal or chewing gums (Olibanum) after meal, respectively. On the other hand, it was observed that only 6.0% of the study subjects had ignored the discomfort.

Table 5: shows the distribution of the study subjects according to their practices to relieve constipation. As regards harmful practices, nearly a quarter (24.0%) of study subjects had used rolled oily paper by paraffin oil as anal lubricant, 22.3% used soap as anal suppository, while about 20.3% drank castor oil, 17.3% drank boiled rupture-wort (sautuince), 14.0% took laxative without prescription, 12.0% ate fenugreek seed , only 8.3% took enema.

Regarding useful practices, the same table reveals that 14.3%, 11.3% & 5.0% of the study subjects used to eat more fresh vegetables, chicory, and fruits, increased fluid intake, and took yogurt respectively. Only 3.3% of mothers drank herbal drinks as anise and/or caraway. On the other hand, only 2.3% of the study subjects had endured this discomfort without any intervention.

Table 6: summarizes sources of women's information about practices to overcome common gastrointestinal minor discomforts. It was observed that 40.0 % of the subjects had their information from their mothers. While less than one-fifth (19.7 % & 17.0 %) of them had such information from mother-in-law and traditional birth attendances (TBAs), respectively and 9.0 % of them stated that their sources of

information about traditional practices were from friends and neighbors. Only 7.0 % acquired their information from herbal traders and the least source stated by them about these practices were mass media and physician or nurse 4.0% & 3.3%, respectively.

Table 7: shows the distribution of the study subjects according to the reasons for preferring traditional practices to relieve their gastrointestinal minor discomforts. It was noticed that 25.3% , 24.7% & 18.7% of the study subjects mentioned that those practices were recommended by relatives, had no side effects, and easy to use and they can do those practices by themselves without prescription, respectively. While 12.7%, 12.0% & 7.7% of them stated that these practices were cheap, they did not know other methods, and they did not like medical treatment, respectively. While 7.0% and 6.0% stated that these methods had good result and they prefer natural things, respectively. Only 3.3% stated that these methods were available at home any time.

Table 8: presents the relationship between age of the studied subjects and their practices to relieve gastrointestinal minor discomforts, it was noticed that a substantial proportion of women used harmful practices regardless of their age in relation to morning sickness, heart burn, and constipation. The table also shows no significant difference between the age of the studied subjects and their practices to relieve their gastrointestinal minor discomforts.

Table 9: presents the relationship between the level of education of studied subjects and their practices to relieve gastrointestinal minor discomforts. As regards morning sickness it was found that women practices regarding morning sickness were significantly related to their education (X^2 = 8.442, p = 0.0157). Statistically significant difference was observed between level of education of the

studied subjects and their practices to relieve heart burn(X^2 = 13.987 and P = 0.0073). The same table also showed that women's education was not significantly related to their practices to relieve constipation (X^2 = 5.115, p = 0.2757).

Table 10: presents the relationship between occupation of the studied subjects and their practices to relieve gastrointestinal minor discomforts. It was found that women's occupation was significantly related to their practices to relieve morning sickness (X^2 = 8.306, p=0.0157). Regarding constipation, a significant difference was observed between occupation of the studied subjects and their practices to relieve constipation (X^2 = 7.189, P = 0.0275). The table also showed that women's occupation was not significantly related to their practices to relieve heart burn (X^2 = 1.691, p = 0.4294).

Table (1): Distribution of the study subjects according to their Socio-demographic characteristics.

Socio-demographic Characteristics	No. (300)	%
Age in years		
<25	107	35.7
≥25	193	64.3
Mean ± SD	27.44 ± 5.36	
Level of education		
Illiterate, Just read & write	123	41.0
Less than university	144	48.0
University	33	11.0
Occupation		
House wife	251	83.7
Working	49	16.3

Table (2): Distribution of the study subjects according to the occurrence of common gastrointestinal minor discomforts during their previous & current pregnancies.

Minor discomforts #	Previous pregnancies		Current pregnancy	
	No.	%	No.	%
Morning sickness	210	70.0	180	60.0
Heart burn	192	64.0	158	52.7
Constipation	160	53.3	153	51.0

More than one answer

Table (3): Distribution of study subjects according to their practices to relieve morning sickness.

Practices #	No.	%
Harmful practices		
Eat salty foods and pickles	100	33.3
Decreased fluid intake	72	24.0
Take medication (without prescription)	30	10.0
Avoid breakfast & Decrease number of meals per day	20	6.7
Induce vomiting	14	4.7
Drink boiled fenugreek seed	10	3.3
Useful practices		
Drink warm fluids at bed time (Anise, fennel, caraway)	41	13.7
Eat dry crackers &/or plain biscuits with cup of tea or milk before getting from bed	39	13.0
Drink peppermint	18	6.0
Drink boiled ginger	12	4.0
Chew some cloves or cardamom	12	4.0
No intervention	38	12.7

More than one answer.

Table (4): Distribution of study subjects according to their practices to relieve heart burn.

Practices #	No.	%
Harmful practices		
Eat lettuce or green fenugreek	122	40.7
Take antacid (without prescription)	110	36.7
Eat vicia faba (crushed bean) or lupinus	75	25.0
Take herbal drink as fenugreek	55	18.3
Drink sodium bicarbonate dissolved in water	52	17.3
Useful practices		
Drink hot milk	70	23.3
Take yogurt	38	12.7
Avoid greasy, spicy &fried food	31	10.3
Avoid sleeping after meal	15	5.0
Chew gums after meal (olibanum)	14	4.7
No intervention	18	6.0

More than one answer.

Table (5): Distribution of study subjects according to their practices to relieve constipation.

Practices #	No.	%
Harmful practices		
Use rolled oily paper by paraffin oil As anal lubricant	72	24.0
Use soap as anal suppository	67	22.3
Drink castor oil	61	20.3
Drink boiled rupture wort (sautuince)	52	17.3
Take Laxative (without prescription)	42	14.0
Eat fenugreek seed	36	12.0
Take enema	25	8.3
Useful practices		
Eat more fresh vegetables especially chicory and fruits	43	14.3
Increase fluid intake	34	11.3
Take yogurt &/ or milk	15	5.0
Take herbal drink as anise and / or caraway	10	3.3
No intervention	7	2.3

More than one answer.

Table (6): Distribution of study subjects according to their sources of information about traditional practices to relieve gastrointestinal minor discomforts.

Sources of information about traditional practices.	No.(300)	%
Mother	120	40.0
Mother-in-law	59	19.7
Traditional birth attendants (T.B.As)	51	17.0
Friends and neighbor	27	9.0
Herbal traders	21	7.0
Mass media	12	4.0
Physician or nurse	10	3.3

Table (7): Distribution of study subjects according to the reasons for preferring traditional practices to relieve gastrointestinal minor discomforts.

Reasons for preferring traditional practices #	No.	%
Recommended by relatives	76	25.3
No side effects	74	24.7
Easy used and can do by themselves	56	18.7
Cheap	38	12.7
Do not know other methods	36	12.0
Do not like medical treatment	23	7.7
Give good results	21	7.0
Prefer natural things	18	6.0
Available	10	3.3

More than one answer.

Table (8): Relationship between age of the study subjects and their practices to relieve gastrointestinal minor discomforts.

to relieve minor discomforts	Age				Test χ^2 (p)
	<25 (n = 107)		≥25 (n =193)		
	No.	%	No.	%	
Morning sickness					
Harmful practices	63	58.9	112	58.0	2.184
Useful practices	27	25.2	60	31.1	(0.3355)
No intervention	17	15.9	21	10.9	
Heart burn					
Harmful practices	69	64.5	114	59.1	1.054
Useful practices	33	30.8	66	34.2	(0.5902)
No intervention	5	4.7	13	6.7	
Constipation					
Harmful practices	80	74.8	144	74.6	1.571
Useful practices	23	21.5	46	23.8	(0.4559)
No intervention	4	3.7	3	1.6	

Table (9): Relationship between level of education of the study subjects and their practices to relieve gastrointestinal minor discomforts.

Practices to relieve minor discomforts	Level of education						Test χ^2 (p)
	Illiterate or just read & write (n = 123)		Less than university (n = 144)		University (n = 33)		
	No.	%	No.	%	No.	%	
Morning sickness							
Harmful practices	78	63.4	81	56.2	16	48.5	8.442*
Useful practices	33	26.8	39	27.1	15	45.5	(0.0157)
No intervention	12	9.8	24	16.7	2	6.0	
Heart burn							
Harmful practices	87	70.7	82	56.9	14	42.4	13.987*
Useful practices	27	22.0	55	38.2	17	51.6	(0.0073)
No intervention	9	7.3	7	4.9	2	6.0	
Constipation							
Harmful practices	95	77.2	108	75.0	21	63.6	5.115
Useful practices	24	19.5	33	22.9	12	36.4	(0.2757)
No intervention	4	3.3	3	2.1	0	0.0	

* Significant, P < 0.05

Table (10): Relationship between occupation of study subjects to their practices to relieve gastrointestinal minor discomforts.

Practices to relieve minor discomforts	Occupation				Test χ^2 (p)
	House wives (n= 251)		Working (n = 49)		
	No.	%	No.	%	
Morning sickness					
Harmful practices	155	61.8	20	40.8	8.306*
Useful practices	65	25.9	22	44.9	(0.0157)
No intervention	31	12.3	7	14.3	
Heart burn					
Harmful practices	157	62.5	26	53.1	1.691
Useful practices	79	31.5	20	40.8	(0.4294)
No intervention	15	6.0	3	6.1	
Constipation					
Harmful practices	193	76.9	31	63.3	7.189*
Useful practices	51	20.3	18	36.7	(0.0275)
No intervention	7	2.8	0	0.0	

* Significant, P < 0.05

DISCUSSION

Pregnancy is a physiological process that is accompanied by various changes in all body systems. It also produces changes in body posture to allow fetal development inside the womb. These changes produce some minor discomforts as morning sickness, heart burn, and constipation. They result from series of enormous physiological, hormonal, and emotional changes related to the growing uterus and postural changes as the bo accommodates to pregnancy. These minor discomforts can be troublesome, but most of them are self-limiting and disappear during pregnancy or after the birth of the baby [7].

Although medical health professionals often term these discomfort as minor and pay little attention to these nuisances, but they are not minor to the pregnant woman[12]. Throughout the world, the use of traditional medicine presents unique challenges in term of policy, efficacy, accessibility, and utilization (WHO 2002)[13,14].

Egyptian women especially who live in rural areas still stick to their old traditional and ancient pattern of life specially the inherited primitive prescriptions for treatment of minor discomforts that occur during pregnancy. Some of these practices have proven beneficial and should, therefore, be further promoted. Others are either useless or decidedly harmful and should obviously be discouraged[11]. This study was an attempt to identify traditional practices which were practiced by pregnant women for relieving minor discomforts. It is everlasting important area of interest which may have the greatest impact on the women's health during pregnancy and pregnancy outcome.

When common minor discomforts were investigated in the present study, it was found that morning sickness was the most significant and the first complaint during pregnancy. This result might be due to the fact that this symptom is most commonly experienced by pregnant women during early pregnancy. Similar finding was reported as early as (1990) by Gowayed and Gamal El-Deen who stated that occurrence of nausea and vomiting during pregnancy was a common complaint among women from both Alexandria and Tanta[15].

The results of the present study revealed that harmful practices to relieve morning sickness predominate over useful ones. Regarding harmful practices, it was found that the majority of the studied subjects used to eat salty food and pickles, induce vomiting, drink boiled fenugreek seeds and take medication without prescription, avoid taking breakfast, decrease number of meals per day, and reduce their fluid intake. This result is not in line with Lowdermilk *et al*., (1999) and Gorrie *et al*., (1998) who stated that excessive intake of sodium should be discouraged during pregnancy as it may contribute to abnormal fluid retention and edema[16,17]. This result is also not in congruence with Blumenthal (2000) and

Gruenwald (1998) who denoted that fenugreek is not recommended during pregnancy since it reduces blood sugar level[18,19]. Drife and Magowan (2004) added that no anti-emetic is licensed for use in pregnancy[20].

Considering useful practices, slightly more than two-fifths of the study subjects performed them in form of drinking warm fluids like anise, fennel, peppermints, and ginger. In addition to chewing clove, cardamom, and eating dry cracker &/or plain biscuits with a small cup of tea or milk before getting from bed were observed. This is expected as these herbs are present in rural areas and prescribed by herbal traders. This result is coinciding with Beal (1998) who stated that herbs as peppermint, fennel, and ginger can be used in tea and have been cited as possible remedies for "morning sickness"[21]. Fontaine (2005), Chez and Murphy (2001) added that Ginger products are part of the folk medicine for treating nausea[22,23].

Heart burn was also a common complaint among women in the present study. This may be attributed to pregnancy hormonal effect and may be due to the type of foods those women ate during pregnancy. In Egyptian villages, people eat more salted cheese with hot pepper which may cause heart burn. This result was in line with Melokhia (1986) who found that 86% of her studied subjects had complained from heartburn [24].

On exploring women's practices to relieve heart burn, the result of the present study revealed that the majority of them did harmful practices in the form of eating green fenugreek or lettuce, vicia faba (crushed been) or luppinus, drinking sodium bicarbonate dissolved in water, and taking antacid without any prescription. These findings are higher than those reported by Shama (1990) who mentioned that the minority of her subjects did so[25]. This dissimilarity of results may be due to the differences in culture between the rural and

urban areas in Tanta and Alexandria. Dipiro (2002) stated that sodium bicarbonate dissolved in water lead to potential electrolytes and fluid abnormalities in mother and fetus[26]. Stephen (1999) added that pregnant or lactating women should not use antacids without prescription[27].

Considering useful practices to relieve heart burn, the results of the present study revealed that more than half of the studied subjects did increase warm milk intake, taking yogurt, avoiding sleeping after meal, and decreasing or refraining from eating greasy, spicy, and fried foods in order to relieve heart burn.This may be due to the availibilty of milk and milk products in rural areas as most of women who live in rural areas rear cows or buffalo in their houses. These results come in agreement with the study of Gowayed and Gamal El-Deen (1990) who mentioned that milk intake was effective in cases of heart burn. On the other hand, women should decrease or refrain from eating greasy and spicy foods to relieve gastrointestinal disorders during pregnancy specially heart burn[15].

Regarding constipation, the result of the present study clarified that most of the studied subjects had this complaint during pregnancy. This result was expected as pregnant women during early pregnancy experience nausea and vomiting so they likely decrease their fluid and food intake to manage morning sickness. A study carried out on pregnant women from Israel and England demonstrated that 11.0% and 38.0% of pregnant women, respectively identified themselves as being constipated[13]. Dealing with women's practices to relieve constipation, the result of the present study revealed that the majority of the studied subjects performed harmful practices to relieve this discomfort in the form of using rolled oily paper (paraffin oil) as anal lubricant, using piece of soap as anal suppository, drinking castor oil, drinking boiled rupture wort, taking laxative (without any prescription), eating fenugreek

seeds, and using enema. These findings were expected as the majority of the studied subjects were housewives and depended on natural materials which were available at home and these materials may be recommended by TBAs. MCcann (2004) refused these practices as they mentioned that mineral oil interferes with absorption of fat-soluble vitamins (A, D, E, and K) which are necessary for fetal growth[12]. Moreover, drinking castor oil was disagreed by Creasy *et al*., (2004) who stated that it had potential adverse maternal and fetal effect, as it might induce labor or abortion[28]. Eating fenugreek seeds to relieve constipation is in line with Boulos (1983) who reported that fenugreek seeds have a tonic and laxative effect and help to relieve constipation[29]. On the other hand, Gruenwald (1998) contradicted this practice as he denoted that fenugreek should be contraindicated during pregnancy as it might reduce blood sugar level[19]. Taking mild laxatives or suppositories without prescription was not in congruence with Woods and Matejeski (1991) and Grodner *et al*., (2004) who mentioned that prolonged use of laxative should be held responsible for some cases of chronic constipation and other intestinal disorders[30,31]. As regards the use of enema for evacuation, it was in congruence with Shama (1990) and El-Bannany (1991) [25,32]. Nevertheless, it was not in congruence with Berek *et al*., (1996) who stated that soap enemas were particularly irritating. they added that injudicious use of enema could cause electrolyte imbalances or colonic perforation[33].

Useful practices to relieve constipation were reported by slightly more than one-third of the studied subjects. It involved increasing intake of chicory, vegetables and fruits as well as increasing intake of fluids, milk, and yogurt to overcome constipation. This was expected since all the studied subjects live in rural area where the fresh vegetables, milk, and milk products were available. Similar results were also reported

by many researches[15,32,34]. Berek *et al*., (1996) emphasized that increased fluid intake and high fiber diet should be considered as conservative measures to manage constipation[33].

In relation to women's sources of information about traditional practices to relieve minor discomforts, the results of the present study showed that mothers, mothers-in-law, TBAs, friends and neighbours, and herbal traders were the common sources for the majority of women, while doctors, nurses and mass media constituted the sources for the minority of them. In addition, the majority of the studied subjects received antenatal care in private clinics where there were no health education classes for women as compared with university hospitals and MCH centers. This finding was partially emphasized by Gaddala (1978) who mentioned that women in urban areas usually had better access to antenatal care services than those from rural areas. They were more likely also to contact health professional personnel at regular intervals to discuss any reproductive health problem[35]. Contrary to this finding, a study in United Kingdom by Liburd (1998) revealed that midwives had been identified as the highest sources of information and uses of complimentary therapies in the health care services. Moreover, documentation of complementary therapies used in midwifery practices had resulted in some evidence-based on practice for reference. He had also claimed that education could play key roles in integration of complementary therapies into midwifery, providing women with more choices, and achieving greater client satisfaction from the childbirth experience[36].

Concerning the reasons for preferring traditional practices to relieve minor discomforts by women in rural area, the results of the present study revealed that the majority of women mentioned that those practices were recommended by relatives, had no side effects, easy to use, could do

those practices by themselves, cheap, they did not know other methods, and did not like medical treatments. These findings were expected since women in the present study were more likely to be illiterate, housewives, and from rural area.

In the present study, the relationship between certain characteristics of pregnant women and the practices they do to relieve minor discomforts was investigated. It was revealed that women's practices to relieve morning sickness and heart burn were significantly influenced by their education. It was also evident from the results that better educated women had more tendencies to use useful practices, while women with limited educational background had more tendencies to use harmful ones. These results were in line with Hassan (2000). She also mentioned that women who had been educated were open minded to new ideas[34]. In addition, this finding went hand with hand with El-Sherbeni (1988) who emphasized the importance of education in the prevention and control of maternity health problems[37]. Moreover, education should be a mean that enables women to gain access to knowledge. The more education women received the better contribution to their empowerment. Education of women could also improve the health of the entire family. Women with more education should also be able to control many events in their lives. Thereby, access to education had to be a fundamental human right and a prerequisite to social, cultural and economic well-being[38].

The results of the present study also revealed a significant relationship between women's practices to relieve morning sickness and constipation and their occupation. It was no wonder to find housewives more likely to do harmful practices. Since non-exposure of women to work outside the home, would gave them chances of contact with more experienced persons and to acquire valuable information.

This result was congruent with Hassan (2000) who stated that housewives who had lack of awareness about good practices and nutrition during pregnancy and supplementary feeding better among worked one[34].

CONCLUSION AND REOMMENDATIONS

Morning sickness, heartburn, and constipation were the most common gastrointestinal minor discomforts among the studied women. There were many useful and harmful practices followed by the pregnant women to relieve them. The majority of the studied subjects were more likely to perform harmful practices rather than the useful ones. This may be attributed to their educational level. A variety of factors had a significant effect on women's practices to relieve minor discomforts. Among these factors were education and occupation.

The main sources of information about traditional practices to relieve minor discomforts were their family, friends, TBAs, and herbal traders. Whereas the least sources of information were physician, nurse, and mass media which explain the low level of knowledge about useful practices among women.

Based on the findings of the present study, the following recommendations are suggested:

1- The concept of traditional practices should be integrated in curricula of nursing faculties.

2- Training of all nursing staff and auxiliary nurses, and social workers about the harmful practices during the pregnancy and the possible bad effect on their health and periodic evaluation of any applied program must be done.

3- Health education programs for women should be designed. These programs should be developed to help women understand their physiological changes during pregnancy as well as different practices related to minor discomforts.

4- A simplified guideline for pregnant

women should be designed and made available in Arabic

5- All factors affecting the usage of traditional practices should be studied in depth by the health team for better management of these factors. This will affect positively the outcome of pregnancy and women health.

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