

**valence of Using Natural Herbs during Pregnancy and
Lactation among women in Riyadh city**

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Abstract

Background: Herbal medicine has a long and storied history of use, and throughout that time, it has historically been used for both the prevention of illness and the treatment of preexisting illnesses. Aim: The aim of this study is to investigate the prevalence of using natural herbs during pregnancy and lactation among women in Riyadh city. Method and materials: Descriptive research design were used for this study; it was included 248 women data was collected by online questionnaire; data analyzed by SPSS program version 22. Results: the results of study showed that, the most time to use natural herbs was lactation period reached (57.7%). The study reflected that that the perception of the participants about the use of natural herbal medicines was positive, as the majority of them (81.9%) stated that they are effective and safe during pregnancy and lactation. In addition, that the most used natural herbs were from fenugreek and black seed (18.5%). Conclusion: the prevalence of using herbal medicines is common during lactation period more than during the pregnancy. Most of participants have positive perception regarding herbal medicines. The study recommended Nurses and other health care providers should therefore ensure that patients disclose the use of herbal medicines during pregnancy to avoid treatment complications.

Keywords: *Prevalence, herbs, Medicine, pregnancy, lactation.*

Introduction

1.1 Background:

Herbal medicine has a long and storied history of use, and throughout that time, it has historically been used for both the prevention of illness and the treatment of pre-existing illnesses. Some estimates place the percentage of the world's population that relies mostly on herbal medicine as their method of choice for treating illness and disease somewhere between 65 and 85 percent. There are estimates that anywhere from 12.3 to 82.3 percent of pregnant women will use some kind of herbal medication at some time throughout their pregnancy and lactation. This range represents the wide variety of experiences that women have had with herbal treatments during their pregnancies and lactation (Laelago, 2019), (Gilmartin, Vo-Tran, & Leung, 2018)

During pregnancy and lactation, common herbs that are used in herbal medicine include ginger, garlic, raspberry, cranberry, valerian, chamomile, peppermint, and fenugreek. Ginger, garlic, raspberry, cranberry, valerian, chamomile, and peppermint are also utilized. In addition to these, other often-utilized ingredients include ginger, garlic, raspberry, and cranberry (Grzeskowiak, Hill, & Kennedy, 2018).

It has been questioned whether or not there are any potential dangers associated with the use of herbal remedies by women during pregnancy and lactation. Even while herbal medication may be more readily available than conventional drugs, there is still controversy over whether or not it is suitable for a pregnant woman to consume (Bettiol et al, 2018).

It is conceivable that using herbal remedies during the first three months of pregnancy and lactation or later in the third trimester might be harmful to the developing baby's health. This risk is increased when taking herbal remedies earlier in the pregnancy. It is crucial that you consult with both your primary care practitioner and your local pharmacy before taking any kind of herbal medication while you are pregnant. This will ensure that you get the safest and most effective treatment possible. This method is advised to be used. This will serve as assurance that the herbs you are utilizing are suitable for usage at this time of year and do not pose any health risks to those using them (Avila,, Whitten, & Evans, 2018).

When a woman becomes pregnant or in lactation period, she will naturally become concerned about all substances that have the potential to affect not only her own health but also the health of the baby and the outcomes of the pregnancy. This concern will extend beyond the woman's own health to include the health of the baby and the outcomes of the pregnancy and lactation (Barnes L. , Barclay, McCaffery, & Aslani, 2018)

If the women want to have a safer pregnancy and lactation, and a healthy baby, it is imperative that you have information that is supported by statistics on the benefits and detrimental effects of taking herbal medications while pregnant. This will allow you to make an informed decision about whether or not to take herbal medications during pregnancy and lactation. Because of this, you will be able to rest certain that you will have a healthier pregnancy (Barnes L. , Barclay, McCaffery, & Aslani, 2018), (Barnes L. , Barclay, McCaffery, & Aslani, 2019)

1.2 Research problem

When they are carrying a child, it is a typical practice for pregnant women to seek therapy from herbal treatments. Several studies have revealed that a sizeable percentage of pregnant women use herbal medicines, either on their own or in conjunction with conventional pharmaceuticals. Some expectant mothers decide to use herbal medicine during the first trimester of their pregnancies, while others decide to start taking it during the second or third trimesters of their pregnancies, or even to take it constantly for the whole of their pregnancies and lactation (Barnes L. , Barclay, McCaffery, & Aslani, 2019), (IRCT20190608043838N1, 2019)

The common benefits of using herbal medicine during pregnancy and lactation include the management of nausea and vomiting, a reduction in the risk of preeclampsia, the management of urinary tract infections and the common cold, and a reduction for time it takes to go into labor. Herbal medicine can also reduce the amount of time it takes to recover from urinary tract infections and the common cold (Shehadeh, Suaifan, Abu-Odeh, & Darwish, 2020), (Al-Zeidaneen & Jaber, 2021)

When using herbal medicine during pregnancy and lactation, the women run the risk of experiencing a number of potential bad consequences, including heartburn, premature labor, abortion, an increase in blood flow, and allergic reactions. These are just some of the possible side effects (Al-Zeidaneen & Jaber, 2021), (Feigel, Kennard, & Lannaman, 2021)

It has been shown by a number of studies that using herbal medicines during either the first 12 weeks of pregnancy or the last 12 weeks of pregnancy, and during the and lactation poses a risk to the growing fetus. This is true for both the first and the last 12 weeks of pregnancy. Women who are pregnant or in lactation period should see their primary care providers or pharmacists before using any herbal drug (Sibeko & Johns, 2021)

There is a need for more study on the possibly detrimental consequences of using herbal treatment during pregnancy and lactation for many different herbs. These effects may include things like birth defects or miscarriage. Therefore, research, especially clinical trial research, has to be conducted in order to ascertain whether the use of herbal medicine during pregnancy and lactation is associated with any potentially harmful consequences.

There were limited studies that conducted about using herbal medicine by women in Saudi Arabia. A study indicated that indicates that more than 98% of women used herbs during pregnancy and lactation, the most commonly used herbs among participants (n=200) were peppermint, ginger, anise, green tea, thyme, coffee (less than 3cups/day), nigella, coffee (more than 3cups/day), myrrh and cinnamon (Zaitoun, Al-Nowis, Alhumaidhan, & E. Khalil, 2019)

A study showed that Saudi woman is interested in taking some traditional medicines during pregnancy during pregnancy and lactation, such as folic acid and iron (al Bahhawi et al, 2018). Other study showed that 56% of the respondents (pregnant women) in Riyadh region have used some type of herbal medicine during their pregnancy (al Essa et al, 2019)

The previous studies have addressed the topic based on the internet-based recruitment strategy for university graduates and this study will be hospital-based recruitment that may result in better representation of the non-educated or illiterate women. The aim of this study is to investigate the prevalence of using natural herbs during pregnancy and lactation among women in Riyadh city.

1.3 Aims and Objectives

The aim of this study is to investigate the prevalence of using natural herbs during pregnancy and lactation among women in Riyadh city.

1.4 Research Question

What is the prevalence of using natural herbs during pregnancy and lactation among women in (PSMMC, KSH, and KSMC) that is located in Riyadh city?

Literature Review

2.1 Introduction

This chapter summarizes the studies relevant to the topic. This chapter contains scientific information about using natural herbs during pregnancy and lactation among women in Riyadh city. A search in relevant electronic databases including: Science Direct, CINALL, PubMed, Google Scholar and EBESCO databases were used to examine the current published literature on the study's variables and to provide context for prevalence of using natural herbs during pregnancy.

2.2 Herbal medicine uses during pregnancy

During pregnancy, some of the herbal medicines that are used the most often include ginger, cranberry, valerian, raspberry leaf, chamomile, peppermint, rosehip, thyme, fenugreek, green tea, and sage. Aniseed is another common ingredient (McAlpine, Yumol, & Ward, 2021), (Eid & Jaradat, 2020)

Other herbal therapies that are used during pregnancy include eucalyptus, tenaadam (also known as *Ruta chalepensis*), damakess (also known as *Ocimum lamiifolium*), feto, and omore. Eucalyptus is also referred to as an alternative name for *Ruta chalepensis*. Bitter kola, garlic, dogonyaro, and palm kernel oil are some of the other herbs that are useful during pregnancy (*Azadirachta indica*). Garlic is another common ingredient (McAlpine, Yumol, & Ward, 2021), (Lewicka et al, 2019)

2.2.1 Ginger (*Zingiber officinale*)

People often call ginger by a variety of other names, including African ginger, black ginger, Cochin ginger, gingembre, ginger root, Jamaica ginger, and imber. Ginger is often used to treat nausea and vomiting caused by sickness as well as hyperemesis gravidarum. Up to 1 gram of dried ginger, powder is suggested for consumption on a daily basis. In a research study with one participant blinded to the treatment, ginger proved to be effective in reducing

the symptoms of nausea and vomiting associated with pregnancy during pregnancy and lactation. The findings of this study also suggested a daily consumption of 100 mg of ginger in capsule form (Sibeko & Johns, 2021), (Lewicka et al, 2019), (Udoudo, Pitter, & F. Agu, 2021)

Consuming 1,500 milligrams of dried ginger every day for four days resulted in a significant reduction in the severity of nausea and vomiting in a clinical trial that was randomized, controlled, and involved 120 pregnant women over 20 weeks of gestation who were experiencing morning sickness. The study also found that babies born to mothers who consumed ginger while they were pregnant or in lactation had normal birth weights and APGAR ratings when they were evaluated shortly after birth (Sibeko & Johns, 2021), (Lewicka et al, 2019)

In the amounts typically found in recipes, ginger can probably be consumed without any adverse effects. It has been demonstrated that consuming one to two grams of dried ginger on a daily basis can help alleviate the symptoms of a mild pregnancy and lactation -related issue. Ginger should only be consumed in the amount that is recommended for pregnant women. Because of this, pregnant women shouldn't consume an excessive amount of ginger (Sibeko & Johns, 2021), (Lewicka et al, 2019), (Udoudo, Pitter, & F. Agu, 2021)

An analysis of the available data suggests that ginger is not a risk-free herb to consume. It's possible that consuming it in large enough quantities could result in an abortion (more than 1000 mg per day). Ginger, when consumed in large quantities, has the potential to cause blood to thin, stomach discomfort, and heartburn (Avila., Whitten, & Evans, 2018), (Barnes L. , Barclay, McCaffery, & Aslani, 2019), (Barnes L. , Barclay, McCaffery, & Aslani, 2019)

2.2.2 Garlic (*Allium sativa*)

The plant known as garlic is a perennial one that can be grown in a number of different places. In many different contexts, it is utilized in the kitchen as both a seasoning and an additive. According to a study that looked at the antimicrobial and antifungal properties of garlic, it was found that garlic is a healthy food for pregnant women to consume (Barnes L. , Barclay, McCaffery, & Aslani, 2019), (Barnes L. , Barclay, McCaffery, & Aslani, 2019). Garlic has been shown to boost a woman's immunity, which in turn helps to ensure that she has a healthy pregnancy and healthy children. Consuming garlic during pregnancy can help reduce the

likelihood of developing preeclampsia as well as the amount of protein that is retained in the urine (Barnes L. , Barclay, McCaffery, & Aslani, 2019), (Barnes L. , Barclay, McCaffery, & Aslani, 2019)

In a study that was both randomized and controlled, one hundred first-time mothers-to-be who were pregnant for the first time were given either garlic pills (at a dosage of 800 milligrams per day) or a dummy pill (known as a placebo) for the duration of their third trimester in order to evaluate the effects of garlic tablets on preeclampsia. Consumption of garlic during the entirety of the third trimester of pregnancy and lactation was linked to very few adverse reactions, such as nausea. The sole distinguishing feature was that it had a pungent aroma of garlic. Both the garlic-taking group and the placebo group had the same outcomes with regard to the pregnancy and lactation. In the neonates that were examined, no moderate nor mild birth defects were found, and there were no cases of spontaneous abortions (Laelago, 2019)

Garlic intake during the first trimester of pregnancy and during lactation should be kept to a minimum. Women who are pregnant and who have difficulties with their thyroids should not take it. Because it may prevent blood clots from forming, pregnant women should avoid eating garlic before undergoing any kind of surgery, including caesarean sections.

Garlic eating during pregnancy has also been shown to aggravate heartburn symptoms (Avila,, Whitten, & Evans, 2018), (Barnes L. , Barclay, McCaffery, & Aslani, 2019), (Barnes L. , Barclay, McCaffery, & Aslani, 2019)

2.2.3 Craisins (*Vaccinium macrocarpon*)

Cranberries include the American cranberry, the Arandano Americano, the Arandano Trepador, the Cranberries, the European cranberry, the Grosse Moosbeere, the kranbeere, the gigantic cranberry, the Moosebeere, and the Mossberry. Other names for cranberries include the Moosebeere and the Mossberry. Consumption of cranberries during pregnancy and lactation is recommended for the prevention of urinary tract infections, stomach ulcers, periodontal problems, and influenza. A study of 400 Norwegian women who had just given birth found that cranberry was one of the herbs that were used the most often during pregnancy. The majority of these women used it to treat urinary tract infections (UTIs) (Avila,, Whitten, & Evans, 2018), (Barnes L. , Barclay, McCaffery, & Aslani, 2019)

2.2.4 Valerian (*Valeriana officinalis*)

Although it was originally cultivated in Europe and Asia, valerian has now made its home in the eastern part of North America. It is grown on a significant scale in a number of countries throughout Northern Europe (Avila., Whitten, & Evans, 2018), (Barnes L. , Barclay, McCaffery, & Aslani, 2019), (Barnes L. , Barclay, McCaffery, & Aslani, 2019)

The herb valerian is a mild sedative that is used for promoting relaxation and falling asleep. Additionally, it has the potential to help reduce both stress and anxiety. We do not have adequate information on the safety of using valerian during pregnancy at this time. Women who are pregnant should get the advice of their obstetrician prior to consuming valerian in any capacity. An investigation into the effects of using valerian during pregnancy on the weight of the brain, the size of the cerebral cortex, and the levels of zinc and copper in the brain tissue of a mouse fetus revealed that using valerian during pregnancy and lactation did not have a significant impact on any of these factors (Laelago, 2019)

There was a significant reduction in the amount of zinc found in the brain of the developing mouse embryos, according to research that was carried out using mouse embryos. According to the findings of this research, valerian should not be taken as often during pregnancy and lactation (Laelago, 2019)

2.2.5 Bitter kola

The bitter taste of kola comes from a plant native to Africa. Since ancient times, pregnant women or women in lactation in Africa have been given bitter kola for support.

Bitter kola is rapidly gaining popularity all over the globe.

Consuming kola bitters in moderation is recommended for pregnant women. Bitter kola is chock-full of essential nutrients for an expecting woman, including vitamins and minerals. African mothers-to-be who are expecting the healthiest babies should drink bitter kola (Laelago, 2019)

Bitter kola has been shown to alleviate symptoms of nausea and vomiting, promote the health of the uterus, fortify pregnant women, and keep blood flow consistent. Caffeine may be found in high concentrations in bitter kola. There is the same amount of caffeine in a single bean of bitter kola as there is in two cups of coffee. Therefore, it is recommended that pregnant

women or women in lactation period drink one teeny small cup of bitter kola on a daily basis; Bitter kola shouldn't be ingested in large amounts because of its unpleasant taste.

A woman's uterus might suffer damage by consuming an excessive quantity of bitter kola (Laelago, 2019)

2.2.6 Fenugreek

The fenugreek plant is an annual that comes from the legume family and is a member of the fabaceae plant family. Both in its natural state and as a result of human cultivation, it may be found throughout Northern India. It is referred to as a galactagogue. If a pregnant woman or woman in lactation takes fenugreek, she will have increased milk production once the baby is born. Fenugreek consumption has been linked to increased milk production in cows, however the exact mechanism behind this connection is unknown. However, it is thought that the components of a hormone that induces cows to produce more milk may be found in the seeds of the fenugreek plant (Laelago, 2019)

Uterine contractions may be induced by consuming large amounts of fenugreek, which may increase the risk of an abortion or bring on labor prematurely. Because it has the potential to affect blood sugar levels, women who are pregnant and who have diabetes mellitus reliant on insulin should avoid consuming it. Additionally, it may cause discomfort in the chest (Laelago, 2019)

2.2.7 Clary sage

The clary sage plant flourishes in the dry, arid soil of its native regions in Italy, Syria, and the south of France. In order to extract the essential oil, the blooms and the flower tips are both used (Laelago, 2019)

It is advised that clary sage not be consumed until 37 weeks after a pregnancy has been successfully completed. It is possible for a woman to go into labor with its usage if her body is already prepared to give birth. It's possible that doing so will stimulate pregnant women to create more oxytocin. Because it intensifies contractions and helps draw up the horizontal uterine muscles, clary sage is highly recommended for use during labor. This helps open the cervix and pulls the baby down into the pelvis and birth canal. One of the most common and straightforward ways to make use of clary sage during labor and delivery is to place a few

drops of the herb on a clean, dry cloth. Afterward, if the lady feels the urge to stay calm and comfortable while experiencing contractions, she might try inhaling the scent. Large doses should be avoided since they have the potential to cause either a miscarriage or an abortion (Sibeko & Johns, 2021), (Udoudo, Pitter, & F. Agu, 2021), (Aljofan & Alkhamaiseh, 2020), (Barnes, Rolfe, Barclay, McCaffery, & Aslani, 2022)

2.2.8 Anise (*Pimpinella anisum*)

Anise is also sometimes referred to as aniseed. Anise comes in two different varieties: anise, also known as *Pimpinella anisum*, and Chinese star anise (*Illicium verum*). Anise is used by mouth as a cough suppressant, diuretic, and appetite stimulant. It is also used to treat upset stomach, gas, rhinorrhea (runny nose), and rhinorrhea (runny nose). Anise is also used to help with breastfeeding and make delivery go more smoothly. On the surface of the skin, anise is used to treat psoriasis, scabies, and head lice. Anise may be used safely during pregnancy if it is taken by mouth in the amounts that are commonly found in food, such as the quantities seen in meals. There are not enough reliable studies to establish whether or not it is safe to ingest medicinal amounts of anise while pregnant because of the potential risks.

Because they don't drink as much of it, pregnant women are safe to drink herbal teas that have minute amounts of anise in them (Sibeko & Johns, 2021), (Aljofan & Alkhamaiseh, 2020), (Barnes, Rolfe, Barclay, McCaffery, & Aslani, 2022)

When mixed with other herbs and applied to the skin, anise has the potential to cause pruritus in a specific area of the body. Anise may cause a variety of allergic symptoms, including occupational asthma, rhino conjunctivitis, and anaphylaxis. Because they have the potential to start labor early, pregnant women should steer clear of essential oil and concentrated anise (Sibeko & Johns, 2021), (Udoudo, Pitter, & F. Agu, 2021), (Barkakati & J. Kalita, 2020), (Aljofan & Alkhamaiseh, 2020)

2.2.9 Green tea

Green tea may make it easier to maintain healthy levels of blood sugar, cholesterol, and blood pressure. Additionally, it speeds up the metabolism of the body and supplies the body with natural energy. It's possible that a pregnant woman or in lactation period may feel more at ease as a result. Although drinking green tea is beneficial to your health, you should limit

how much you drink. Caffeine intake should not exceed 300 milligrams on a daily basis (Barkakati & J. Kalita, 2020), (Aljofan & Alkhamaiseh, 2020)

According to the findings of two separate studies, pregnant women who drink green tea have a higher risk of having an abortion that is not medically induced. Women who had spontaneous miscarriages had higher levels of caffeine-derived serum paraxanthine, according to the findings of a case-control research including 3,149 pregnant women. The study was designed as a case-control comparison. Another case-control study with a total of 1498 pregnant participants found that ingesting 375 milligrams of caffeine or more on a daily basis was associated with an increased chance of spontaneous abortion (Sibeko & Johns, 2021)

There is a chance that children whose moms were pregnant while they drank high levels of caffeine may be prematurely small when they were delivered. The subsequent investigation will reveal that this is correct. Women who took more than 600 milligrams of caffeine on a daily basis were found to have a higher chance of delivering kids with a low birth weight, according to the findings of a prospective research that included 2,291 pregnant women (Sibeko & Johns, 2021), (Udoudo, Pitter, & F. Agu, 2021), (Barkakati & J. Kalita, 2020), (Aljofan & Alkhamaiseh, 2020)

A prospective research that included 63 women found that pregnant women who took more than 300 mg of caffeine per day had children that had a lower birth weight. Studies have shown that drinking caffeine may raise the risk of having a kid who does not survive after birth. Women who consumed eight cups of coffee or more per day were found to have a stillbirth risk that was two times higher than that of women who did not drink coffee in a research that followed 18,478 singleton pregnancies over the course of a follow-up period (Aljofan & Alkhamaiseh, 2020)

Even if the prior studies were done on coffee, there is still a possibility that drinking an excessive amount of green tea might be dangerous for pregnant women and newborns. Coffee and green tea both have about the same amount of caffeine. According to the research that was shown earlier, having a daily caffeine intake of more than 300 milligrams (mg), which is equivalent to drinking more than eight cups of coffee, may increase the risk of a woman having an abortion. Additionally, drinking too much coffee could make it difficult to go to sleep

(Sibeko & Johns, 2021), (Udoudo, Pitter, & F. Agu, 2021), (Barkakati & J. Kalita, 2020), (Aljofan & Alkhamaiseh, 2020)

2.2.9 Thyme (*Thymus vulgaris*) (*Thymus vulgaris*)

Common thyme is also known as French thyme, garden thyme, oil thyme, red thyme oil, rubbed thyme, Spanish thyme, thyme aetheroleum, thyme essential oil, thyme oil, thyme herbal, van ajwain, vanya yavani, and white thyme oil. Other names for this plant include: rubbed (Barkakati & J. Kalita, 2020), (Barnes, Rolfe, Barclay, McCaffery, & Aslani, 2022)

Thyme was shown to be effective in relieving both stomach pain and gas, as well as bloating, in a study that analyzed previous research on the use of herbal remedies during pregnancy and lactation. Additionally, it is used to treat infections of the urinary tract and the common cold. When used in the amounts that are frequently found in foods in the United States, thyme is regarded as being safe to consume. There is a paucity of reliable data about the safety of thyme use during pregnancy. Therefore, ladies who are pregnant should not take thyme for therapeutic purposes (Sibeko & Johns, 2021), (Udoudo, Pitter, & F. Agu, 2021), (Barkakati & J. Kalita, 2020), (Barnes, Rolfe, Barclay, McCaffery, & Aslani, 2022)

If you eat a lot of thyme, it can make it easier for you to become pregnant. Due to the increased risk of a miscarriage, especially in the early stages of pregnancy and in lactation period, it is strongly recommended that you steer clear of it (Sibeko & Johns, 2021), (Udoudo, Pitter, & F. Agu, 2021), (Barkakati & J. Kalita, 2020), (Barnes, Rolfe, Barclay, McCaffery, & Aslani, 2022)

2.2.10 Echinacea

Many species of Echinacea can only be found in North America. Native Americans made use of them to treat oral ulcers, colds, bruises, toothaches, and even the pain associated with being stung by insects. Echinacea, according to the findings of at least one study, may cut both the severity and the number of colds and urinary tract infections that a person experience. The recommended amount of tincture to take is five to twenty milliliters. The potential risks associated with using echinacea during pregnancy need more exploration (Sibeko & Johns, 2021), (Udoudo, Pitter, & F. Agu, 2021), (Barkakati & J. Kalita, 2020), (Barnes, Rolfe, Barclay, McCaffery, & Aslani, 2022)

2.3 Prevalence of Herbal medicine use during pregnancy

Some estimates place the percentage of the world's population that relies mostly on herbal medicine as their method of choice for treating illness and disease somewhere between 65 and 85 percent. There are estimates that anywhere from 12.3 to 82.3 percent of pregnant women will use some kind of herbal medication at some time throughout their pregnancy. This range represents the wide variety of experiences that pregnant women have had with herbal treatments during their pregnancies and lactation (Aljofan & Alkhamaiseh, 2020), (Barnes, Rolfe, Barclay, McCaffery, & Aslani, 2022)

It is normal practice in a great number of countries and regions to make use of herbal remedies during pregnancy and lactation. There is a wide range of variation in the prevalence of the use of herbal medicine during pregnancy depending not only on nation but also on location and region. According to the results of a global study that was conducted in a range of countries, 28.9 percent of pregnant women reported using herbal medicine at some point during their pregnancy and lactation (Sibeko & Johns, 2021), (Udoudo, Pitter, & F. Agu, 2021), (Aljofan & Alkhamaiseh, 2020)

According to the findings of a literature review conducted in the Middle East, as many as 82.2% of pregnant women living in that region utilized some kind of herbal treatment at some point throughout their pregnancies. According to the findings of the study, an appreciable proportion of pregnant women used herbal medicine throughout the first three months of their pregnancies and lactation (Laelago, 2019)

The results of an observational cohort study that was carried out in South West England revealed that 26.7 percent of the pregnant women polled admitted to having used some form of complementary or alternative medicine at least once during their pregnancies. The study was carried out on a group of women who were all currently pregnant. The usage of herbs rose from 6 percent during the first trimester to 12.4 percent during the second trimester, and then to 26.3 percent during the third trimester (Barkakati & J. Kalita, 2020), (Anadón, Martínez-Larrañaga, Ares, & Martínez, 2022)

According to the findings of a research carried out in Australia, throughout their pregnancies one out of every three pregnant women took some kind of herbal medicine. There have been a number of researches carried out in Africa, and the outcomes of these studies

indicate that the proportion of pregnant women who take herbal medications spans anywhere from 12.1% to 73.1%

Women, who have never had any formal education, have a low income, or who have not attained the higher education level is more likely to utilize herbal medicine when they are pregnant. Women who have completed some degree of postsecondary education have an increased likelihood of using herbal medicine. Another factor that increases a woman's chance of making use of complementary and alternative therapy is the fact that she is a first time mother. Women of a ripe old age who do not indulge in the habit of smoking.

A study showed that the consumption of herbal medications in general is common; despite this, the prevalence of herbal medication usage by the participants during their most recent pregnancy was 21 percent (78/383). The vast majority of herbal remedies were given primarily by intake through the mouth as their primary method of administration. Sixty-nine percent (54/78) of the people who used herbal medications, and the vast majority of them, ninety percent (70/78), did not disclose the usage of these local herbs to the attending healthcare staff who were taking care of them during ANC and delivery. This was the case despite the fact that the majority of the people who used herbal medications were pregnant. This was also true for the vast majority of those who relied on herbal remedies for medical treatment (Nyeko, M. Tumwesigye, & A. Halage, 2016)

2.4 Reasons for using herbal medicine

The majority of pregnant women or women in lactation who used herbal medicines did so for more than one reason. This was especially true of those who used ginseng. This was true for the overwhelming majority of the women in this group. The most frequent indicators included, but were not limited to, pain in the belly or waist (43 percent), fever (45 percent), beginning or enhancing labor (28 percent), skin concerns (24 percent), nausea and vomiting (22 percent), and difficulty access to a health facility (41.3 percent). The vast majority of pregnant women who used herbal medicines did so for a number of different reasons, and this was the case for almost all of these women. (Nyeko, M. Tumwesigye, & A. Halage, 2016).

2.5 Factors associated with herbal medicine use

As found, through a bivariate analysis that was statistically significant, that women who believed in the efficacy of herbal medicines were ten times more likely to use herbal products during pregnancy than mothers who did not believe in the efficacy of herbal medicines. This was the case regardless of whether or not the women actually used herbal products (OR 10.02; 95 percent CI 5.67-17.73). In a similar vein, it has been demonstrated that the use of herbal drugs in the past for conditions that are not related to pregnancy is a powerful predictor of the use of herbal medications during the current pregnancy. This is because the use of herbal drugs in the past is a strong predictor of the use of herbal medications during the current pregnancy (Nyeko, M. Tumwesigye, & A. Halage, 2016)

There was a statistically significant negative association between the number of children that a woman had previously given birth to and the usage of herbal drugs while pregnant (OR 0.50; 95 percent confidence interval [CI]: 0.25-0.98). This shows that first-time mothers are less likely to make use of herbal medications throughout their pregnancies compared to women who are giving birth to subsequent children. This finding was statistically significant because it showed that women who had used herbal medicines during one of their previous pregnancies were eight times more likely to take herbal medications during one of their current pregnancies if they had used herbal medicines during one of their previous pregnancies. Women who had used herbal medicines during one of their previous pregnancies were eight times more likely to take herbal medications during one of their current pregnancies if they had used herbal medicines during one (OR 7.98; 95 percent CI 4.45-14.30). The statistical evidence supported this finding. Living more than 5 kilometers away from the closest health facility was another condition that was connected with an increased probability of women using herbal medication during pregnancy (odds ratio of 2.43; 95 percent confidence interval of 1.46-4.05) (Nyeko, M. Tumwesigye, & A. Halage, 2016).

The study indicated that the opinion that herbal medicines are effective and safe, in addition to previous use of herbal medicines during pregnancy or for other reasons, were the only significant independent predictors of taking herbal drugs during pregnancy. The study also concluded that a history of taking herbal drugs for reasons other than pregnancy was not a

significant predictor of using herbal medications while pregnant. This was one of the conclusions that was drawn from the research. The following variables were permitted to remain in the model, despite the fact that they did not satisfy the statistical criteria for significance: age, distance from the closest health facility, self-medication, and parity (Nyeko, M. Tumwesigye, & A. Halage, 2016).

2.6 Herbal medicine in Saudi Arabia:

There were limited studies that were conducted about using herbal medicine by women in Saudi Arabia. A study indicated that indicates that more than 98% of women used herbs during pregnancy and lactation, the most commonly used herbs among participants (n=200) were peppermint, ginger, anise, green tea, thyme, coffee (less than 3cups/day), nigella, coffee (more than 3cups/day), myrrh and cinnamon (Zaitoun, Al-Nowis, Alhumaidhan, & E. Khalil, 2019). A study showed that Saudi woman is interested in taking some traditional medicines during pregnancy, such as folic acid and iron (al Bahhawi et al, 2018). Other study showed that 56% of the respondents (pregnant women) in Riyadh region have used some type of herbal medicine during their pregnancy and lactation (al Essa et al, 2019)

2.7 Summary

Over the course of history, there has been a rise in the number of people using herbal remedies. Ginger, cranberry, valerian, raspberry leaf, chamomile, peppermint, thyme, fenugreek, green tea, sage, anise, garlic, and bitter kola are some of the herbs that are used the most often. Other frequently utilized herbs include garlic and bitter kola. There is a correlation between the educational level of women, the family income level, and the age of women when it comes to the usage of herbal medication during pregnancy and lactation. Women who are pregnant should consult with medical specialists before using any herbal supplements or drugs.

Material & Methods

3.1 Research design:

Descriptive cross-sectional design was used in this study.

3.2 Setting of the study:

This study was carried out in different women's section and Obstetrics clinics in different hospitals, Riyadh, Saudi Arabia.

3.3 Sampling and Sample size:

A convenience sample was used; sample size in this study included 248 women; data was collected by online questionnaire.

3.4. Tools of Study:

The questionnaire was developed to collect data for this research based on previous studies (Bettiol et al, 2018), (Barnes L. , Barclay, McCaffery, & Aslani, 2018), (Nyeko, M. Tumwesigye, & A. Halage, 2016). The questionnaire included 20 statements. It consists of two main parts.

First part: The socio-demographic data which includes variables such as: age, academic level, health status, have a job.

Second part: includes questions related to:

- Prevalence of herbal medicine use by respondents using three-point Likert scale (1 item).
- Used herbal medicine by respondents
- Characteristics of herbal medicine use during pregnancy using nominal data and yes and no answers (5 items).
- Reasons for using herbal medicine during pregnancy using nominal data (4 items).

Reliability was tested using Cronbach's alpha ($\alpha=88$; range: 75-95 for each item) and the validity was tested using loading factors (range=.55-.80)

3.5 Data Collection Method:

- An official permission from Inaya College was obtained to conduct the study.

- The tool for data collection was prepared and the content validity of the questionnaire was confirmed by an expert.
- The reliability of the questionnaire was determined using Cronbach's Alpha.
- A pilot study was carried out on a sample of 30 women of sample to test the feasibility of the study and clarity and applicability of the tool.
- Online Questionnaire was distributed to be filled by women through Electronic Link i.e., WhatsApp link.

3.6. Data analysis:

The collected data will be analyzed using statistical package for social studies (SPSS) version 22. Descriptive measures were done to find out mean, stander deviation frequency and percentage.

3.7. Ethical considerations:

Experts in the present study confirmed the accuracy of the questionnaire. Participants was provided complete autonomy and ensured confidentiality for participating in this study. Permission for conducting present research was granted from Inaya College official permission authorities, and this research was only carried out after getting IRB approval from the Ethical Committee to prevent any research discrepancy and falsification in study design.

Table No. (1): Shows the frequencies, percentages, of the demographical data of the participants in the study.

Demographical data		N	%	
Age	25 – 18 years	55	22.2 %	248 % 100
	35 – 26 years	60	24.2 %	
Employment	45 – 36 years	69	27.8 %	248 % 100
	More than 45	64	% 25.8	
	Employed	133	53.6 %	
	Unemployed	115	46.4 %	
Health status	Healthy	52	21 %	248 % 100
	Have a medical history	196	79%	
Education level	Illiterate	6	% 2.4	248 % 100
	Primary	9	% 3.6	
	Secondary	14	% 5.6	
	High school	55	% 22.2	
	Unverity	164	% 66.1	

The result in Table (1): showed that (53.6%) of the participants in the study there are over the 35 years, and they had a job. The results also showed that the majority of them had no previous medical history, as their percentage was (79%), and more than half of the participants in the study (66.1%) had a university degree.

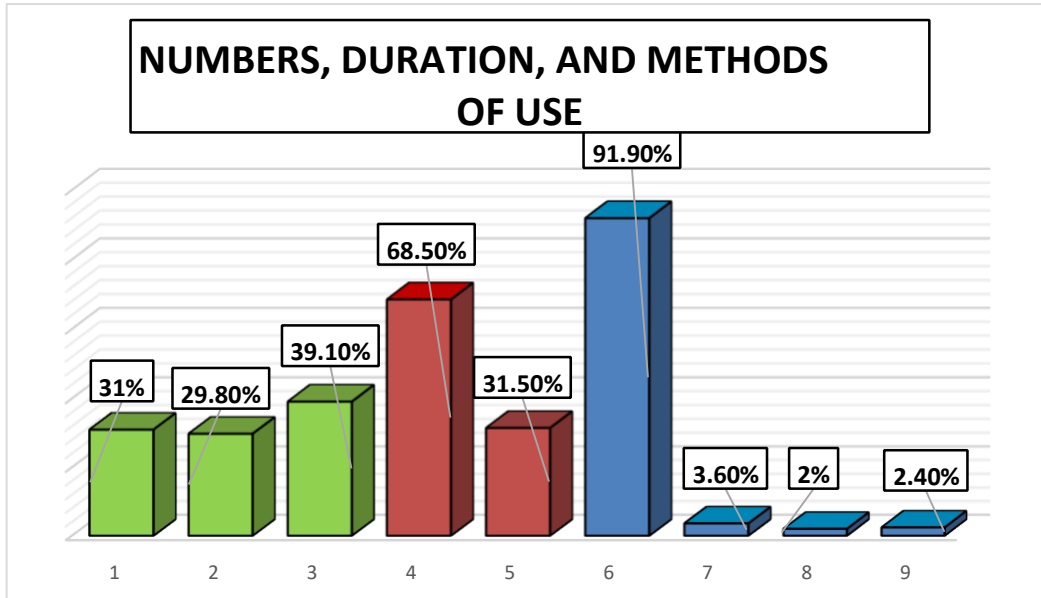


Figure No. (1): shows the numbers, duration, and methods of using natural herbal medicines by study participants.

1. Never used it before
2. I used it before pregnancy
3. I used it frequently
4. Less than three weeks
5. More than or equal to three weeks
6. Oral
7. By inhalation
8. Inserting it into the vagina
9. Put it on the abdomen

As shown in this graph, more than a third of the study group (39.10%) used the natural herb frequently. And in a period not exceeding three weeks, their percentage reached (68.5%), and the majority (91.9%) were using natural herbs by taking them orally.

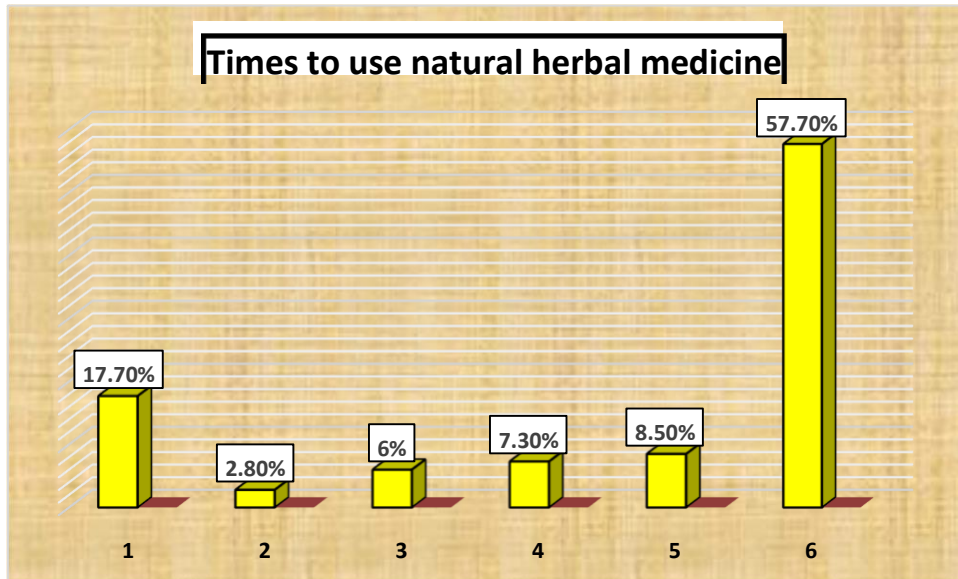


Figure No. (2): shows the times of using natural herbal medicines.

1. First trimester of pregnancy
2. The second trimester of pregnancy
3. The third trimester of pregnancy
4. The first and second trimester of pregnancy
5. The second and third trimester of pregnancy
6. During breastfeeding

As shown in Figure No. (2), the most time to use natural herbs was lactation period reached (57.7%). While the use during First trimester of pregnancy reached (17.7%).

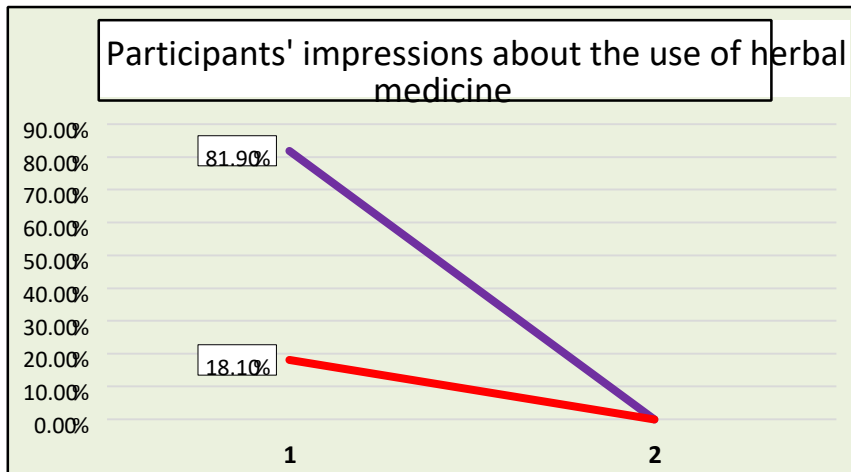


Figure No. (3): shows the participants' impression of natural herbal medicines

1. Ineffective

2. Effective and safe

. Figure No. (3) shows that the impression of the participants in the study about the use of natural herbal medicines was positive, as the majority of them (81.9%) stated that they are effective and safe during pregnancy and lactation.

Table No. (2): shows the percentages of the source of information, the reasons for use, the perceptions and beliefs of users, and the harms from using natural herbs during pregnancy and lactation

Total	%	Frequencies	Items	No
248 % 100	18.5 %	46	From the herbalist	Sources of information 1
	69 %	171	From family and relatives	
	12.5 %	31	from friends	
248 % 100	33.1 %	82	Abdominal and waist pain	Indications for use 2
	25 %	62	Nausea and reflux	
	% 23	57	Induction or improvement of the birth process	
	% 19	47	Maintaining the health of the fetus	
248 % 100	37.1 %	92	treats many diseases	Participants perception of the use of herbal medicine 3
	25.8 %	64	Imitation of use from the experience of others	
	16.9 %	42	Herbs are safe during pregnancy	
	20.2 %	50	Natural herbs are more effective	
	67.7	168	less expensive	4

248 % 100	%			Why do you think that using natural herbs is better than using medicinal drugs?	
	19.4 %	48	Difficulty accessing health facilities		
	12.9 %	32	Lack of medicines in health facilities		
248 % 100	12.5 %	31	Respiratory infection	Side effects and harms with the use of natural herbal medicines	5
	10.5 %	26	Skin disorders		
	% 5.6	14	Fever		
	71.4 %	177	Others		

Table No. (2) shows that (69%) of the participants in the study were the source of their information about herbs through family and relatives, and (33.1%) of them used herbs for reasons of abdominal and waist pain, as they perceive that herbs are effective in treating many diseases (37.1%). The results also showed that (67.7%) of them resort to using herbs due to their low cost. The study showed that (28.6%) of the participants showed symptoms associated with the use of natural herbs such as respiratory infection, fever and skin problems.

Table No. (3): shows the natural herbs used by the participants in the study during pregnancy and lactation

Natural herbs	Frequency	%
Fenugreek, black bean	46	% 18.5
Aniseed, black bean	19	% 7.7
the recipe yield,	9	3.6%
menstrual cycle medicine	11	4.4%
Peppermint leaf	9	3.2%
chamomile	7	3.6%
Post-partum herbs	16	6.5%
coffee peel	5	% 2.3
Sage, Anastatica, zaatar	24	% 9.7
fennel	9	3.6%
raspberry leaf	14	5.6%
olive oil, ginger	10	4.0%
Milk diuretics	13	5.2%
Cress and cinnamon	10	4.0%
Astragalus sarcocolla	18	7.3%
Rosemary	14	5.6%
Never used it	13	5.2%
Total	248	100%

It is clear from Table No. (3): that the most used natural herbs were from fenugreek and black seed (18.5%), and also the palm of Sage, Anastasia hierophantic, zaatar (9.7%), while the percentage of Aniseed with black bean was (7.7%).

Conclusion

According to finding; the study was concluded to the following:

- More than a third of the study group (39.10%) used herbal medicine frequently. And most of them were used by the oral method.
- Majority of women used natural herbs during the lactation period more than during pregnancy.
- Majority of them have positive Perceptions regarding using herbal medicine during pregnancy and lactation.
- Abdominal/waist pain is the most obstetric reason for using herbal medicine among women.
- More than half of the study group used herbal medicine because of its low cost.
- Fenugreek and the black seed were common herbal medicine used among women.

Recommendation

❖ For nurses:

- Nurses and other health care providers should therefore ensure that patients disclose the use of herbal medicines during pregnancy to avoid treatment complications.
- Nurses should educate women about the safety use of herbal medicines by clarifying the appropriate period and type of herbals.
- Nurses should evaluate the women cultural background regarding herbals medicine.

❖ For women:

Pregnant women should Contact primary health care health providers before using any herbals medicine

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