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Investigating the effect of herbal medicine on the severity of menstrual bleeding in human studies: a systematic review

Abstract

Menstrual bleeding is the most common complaint of women, and more than 50% of women worldwide suffer from it. The imbalance of prostaglandin secretion from the endometrium in the menstrual cycle is effective in primary dysmenorrhoea and menstrual bleeding. Today, due to the side effects of chemical drugs and the remarkable effectiveness of medicinal plants, people are inclined to use medicinal plants. For this purpose, the present study was conducted to investigate the role of medicinal herbs in the intensity and volume of menstrual bleeding. In this study, Magiran, SID, Google Scholar, Cochrane, Pubmed, Scopus, Web of Science, and Web of Knowledge databases with Persian keywords menstrual bleeding and herbs, herbs and menstrual bleeding, the intensity of menstrual bleeding and the severity of menstrual bleeding and clinical trial and its English equivalent were searched without time limit. At first, 626 articles were reviewed, then 36 articles matching the study inclusion criteria were reviewed, and finally, 12 articles that were in line with the research objectives were fully used. Based on the results, several plants of lavender, fennel, European thyme (garden), chamomile, sage, rosemary, honey, ginger, vitagenus, valerian, and flax seed can reduce the intensity and volume of bleeding with dysentery. The primary menorah should be effective. The use of medicinal plants with analgesic, antioxidant, anti-bloating, and anti-inflammatory properties can be used as a supplement and replacement for chemical drugs in reducing the intensity of bleeding associated with primary dysmenorrhea.

Keywords: *primary dysmenorrhea, medicinal plants, menstrual bleeding*

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Introduction

Menstruation or uterine bleeding is a natural, physiological process and a part of the active life of young women all over the world, which most women of reproductive age experience. The menstrual cycle depends on the coordinated actions of the hypothalamus, pituitary gland, ovarian follicles, and endometrium(1). The morphological and functional characteristics of the spiral arteries of the uterine endometrium are unique And it plays an essential role in establishing changes in their blood circulation, which allows menstrual bleeding to take place. Approximately 30 to 60 milliliters of blood is lost during each menstrual cycle. If the amount of bleeding reaches 80 ml or more, it is called menorrhagia(2). According to the report of Smith and colleagues, the duration of menstrual bleeding in 84% of Taiwanese women was 3-6 days, while Lin and colleagues reported that in addition to 66% of women having a bleeding duration of more than 7 days, 57.6% of women had average bleeding. And 42.4% experienced severe bleeding(3, 4). If menstruation is accompanied by symptoms such as severe bleeding, headache, fatigue, nausea, vomiting, diarrhea, impatience, chills, and muscle cramps(5), It causes a person to be absent from his workplace or studies. It is estimated that working or studying women miss 3 working days every month due to menstrual problems, because at least 42% of the adult workforce is women, so millions of Human resources are in trouble(6, 7) Increased menstrual bleeding includes hysterectomies and the most common cause is endometrial destructive surgery(8). The use of non-steroidal anti-inflammatory drugs, including mefenamic acid, is considered the first line of treatment due to its significant effect in reducing pain and bleeding(9). These drugs are ineffective in 17 to 27% of patients. Complementary medicine and herbal medicine have received much attention in recent years among different methods. With this general enthusiasm and tendency to use herbal medicines, as well as the great variety of medicinal plants in Iran, many researchers have researched the effects of these medicines so far(10). According to women's desire to use of herbal medicines and on the other hand lack of information and clinical evidence available about the effect of different plants, used in the treatment of bleeding with early menstruation to provide high quality services by the doctors and health team of the country, so the present study with the aim Summarizing the analysis of clinical trials conducted in this field and checking the safety and efficacy of various medicinal plants.

Methodology

Searching for clinical trial articles related to the subject by two researchers separately until August 2022 in Persian and English based on the Prisma checklist(11) in Persian databases Magiran and SID and English databases, Google Scholar ,

Cochrane, Pubmed, Scopus, Web of Science and Web of knowledge with Persian keywords intensity of menstrual bleeding and herbs, herbs, and intensity of menstrual bleeding, the intensity of menstrual bleeding and intensity of early menstrual bleeding and clinical trial and English keywords Intensity of Menstrual bleeding and herbs, herbs, and intensity of menstrual bleeding, the intensity of menstrual bleeding and intensity of primary menstrual bleeding and a clinical trial was done without time limit. In the initial evaluation, 626articles were selected, after removing duplicate articles related to the topic of selection, and finally, 12 experimental studies were included in the study

Include criteria

conducted on humans in which plants were used singly or in combination, orally or topically on the severity of menstrual bleeding.

Exclusion criteria

articles not related to the severity of menstrual bleeding, articles about the effect of herbs on menorrhagia and severity of bleeding, descriptive and qualitative studies, and lack of access to the full text of the article.

Quality assessment

At first, 23,500 titles with the mentioned keywords were examined by two researchers. Then 626 titles and abstracts of related articles were evaluated based on the study criteria. The evaluation was done independently by two researchers. Then 590 unrelated and duplicate articles were removed. Finally, 36 identical clinical trials with the entry criteria were examined using the Jadad system. Jadad's (12) criterion examines the articles based on the possibility of bias in the randomization and follow-up of patients, which has a minimum score of 1 and a maximum score of 5. Articles that scored 3 or more were included in the study. Finally, 12 articles related to the objectives of the study were reviewed and the selection process of the articles is shown in Figure 1.

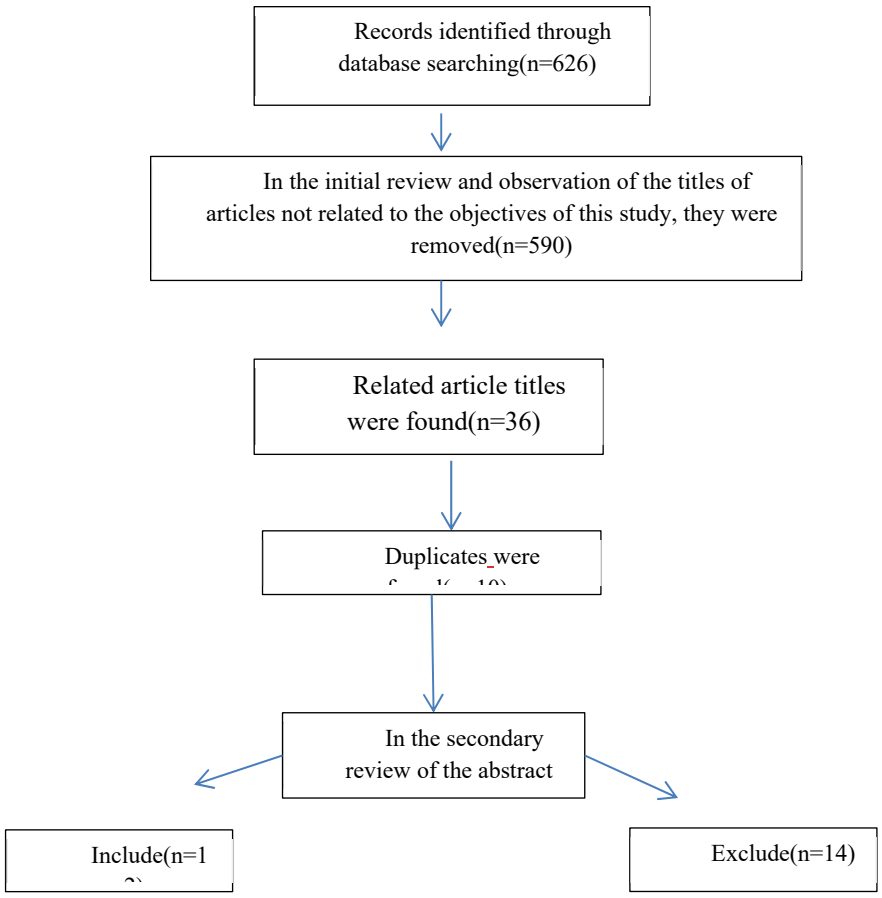

Figure 1. The process of selecting articles

Findings

In this study, 12 articles that were in line with the objectives of the present study were reviewed and the information on these articles is listed in Table 1.

Table 1- Characteristics of the reviewed studies

Author(year)	Type of Research	Purpose of the research	Number of samples	Research tool	Result
Akhavan(13) Amjad(2010)	Clinical trial	Determining the effect of fennel seed extract (without ethanol) on the intensity of bleeding and duration of menstruation	n=46 in the intervention n=44 control	Visual Analogue Scale Higham The herbal capsule contained 46 grams of hydraulic extract of fennel fruit and the placebo capsule contained starch powder (5 tablets per day for the first three days of menstruation)	**Fennel extract does not increase the intensity and duration of menstruation**
Bokaee(14) (2017)	Clinical trial	Determining the effect of fennel extract on the intensity and amount of bleeding before and after fennel consumption	n=29 intervention n=30 control	Pictorial Blood Assessment chart For the control group, a capsule of 225 mg of valerian root powder was prescribed every 8 days for three days, and for the control group, a capsule of 225 mg of starch was prescribed according to the same prescription.	**Fennel extract does not increase the intensity and duration of menstruation**
Ehsani(15) (2014)	Clinical trial	Investigating the effect of herbal	n=50 intervention n=45placebo n=30 Control	Visual analog scale The intervention	**Consuming the decoction of three plants**

		infusions (European (garden) thyme, sage, and chamomile) on menstrual bleeding.		group received an infusion of 15 grams of herbs three times from the first to the third day of menstruation, control group 1 received a placebo, and control group 2 did not receive any intervention	**(European thyme (garden), sage, and chamomile) reduced the intensity of bleeding.**
Mirabi(16) (2018)	Clinical trial	Investigating the effects of Lemon balm on menstrual bleeding and systemic manifestations of dysmenorrhea	n= 50 intervention n=50 control	menstrual pictogram and verbal multidimensional system For the intervention group, 330 grams of Lemon balm capsules and for the control group, 330 capsules of corn starch from the first to the third day of menstruation	**consumption of this plant does not increase the intensity of bleeding and the length of the menstrual period**
Mirabi(17) (2022)	Clinical trial	Investigating the effect of valerian capsules on the amount of early menstrual bleeding and related symptoms	N=51 intervention n=40 control	menstrual pictogram and verbal multidimensional system the control group, a capsule of 225 mg of valerian root powder was prescribed every 8 days for three days, and for the control group, a capsule of 225 mg of starch was prescribed according to the same order.	**consumption of this plant does not increase the intensity of bleeding and the length of the menstrual period**

Ajorpaz(18) (2012)	Clinical trial	Comparison of the effect of pure and impure honey on the intensity of initial menstrual pain, amount, duration, and the interval between two bleedings in female students suffering from primary dysmenorrhea.	N=30 pure honey (mountain)(intervention) n=30 impure honey (store)(control)	A two-part questionnaire of the scale of visual inspection, intensity, and duration of bleeding. In the pure honey group, after the start of menstruation, natural kohrang honey in the amount of 5 teaspoons equal to 40 grams in the morning until the start of the next cycle, and in the impure group, the same process continued every other day.	**The amount of bleeding decreased after consuming both types of honey.**
Ghafourvand(21) (2015)	Clinical trial	Comparison of the effect of Vitagnos and flax seeds on menstrual bleeding	N=53 Flax seed, There n=53 Vitagnos tablet n=53 placebo group.	Higham questionnaire(19) and menstrual bleeding evaluation(20) table Flax seed powder group 25 grams plus Vitagnos tablet placebo, Vitagnos tablet group one tablet of 2.3 to 8.4 mg daily plus flax seed placebo, and finally the placebo group 25 gram flour package Wheat was prescribed to the group daily from the first day to the end of	**Flax seeds and Vitagnois were effective in reducing the intensity of bleeding**

				menstruation for three meals after meals	
Shabani(22) (2020)	Clinical trial	Synergistic evaluation of medicinal effects of chamomile and ginger on pain and symptoms of primary dysmenorrhea	N=25 Ginger with honey, n=25 chamomile with honey n=25 ginger and chamomile with honey n=25 finally mefenamic acid	Visual visit scale, menstrual bleeding evaluation table Two consecutive cycles, three times a day from 2 days before menstruation to the first 3 days, 1000 mg of ginger root powder with honey (one tablespoon), 500 mg of chamomile with honey, (1000 mg of ginger and 500 mg of chamomile)) and mefenamic acid (250 mg) were used.	**In all four groups, pain intensity, the number of painful days, back pain, analgesic consumption, total symptom score, and bleeding loss were significantly reduced.**
Zeraati(23) (2014)	Clinical trial	Comparative evaluation of the effect of herbal medicines (fennel and Vitagnos) with mefenamic acid in the treatment of primary dysmenorrhea	N=25 Fennel n=25 Vitagnos N=255placebo N=30 mefenamic acid	Visual inspection scale, group 1: fennel, 30 drops every 4 hours, 1 day before the start of the cycle until the third day. Group 2: received 40 drops of Vitagnos once in the morning, 1 day before the start of the cycle until the 3rd day. Group 3: received 250 mg mefenamic acid capsules every 4 hours	**Fennel and Vitagnos were more effective than mefenamic acid**

Golkhatmi(24) (2019)	Clinical trial	Comparison of rosemary capsule and mefenamic acid in menstrual bleeding	n=42 rosemary n=40 mefenamic acid	The participants in the intervention group received 250 mg rosemary capsules and the control group received 250 mg mefenamic acid capsules in the first 3 days of menstruation.	**Rosemary capsule reduces menstrual bleeding and early dysmenorrhea like the mefenamic acid capsule.**
Shiroyeh(25) (2021)	Clinical trial	Comparison of the oral and topical effects of ginger on the amount of menstrual bleeding	N=35, ginger capsules n=35 ginger oil	Higham According to the same instructions, both groups received medicine every 6 hours for 3 consecutive menstrual cycles from two days before bleeding to the first 3 days. In the capsule receiving group, 250 mg capsules, and in the oil receiving group, 2 days before menstruation and the first 3 days, 5 drops every 6 hours on the abdomen below the navel to the extent of fat and swelling. used to become	**Ginger capsules and oil do not increase the intensity of menstrual bleeding**
Ahmadi(26) (2022)	Clinical trial	A comparative study of the effect of ginger-lavender capsule with mefenamic	N=30 ginger-lavender n= 30 mefenamic acid	Menstrual status questionnaire and pain ruler and verbal multidimensional system and counting the	**Taking ginger-lavender capsules reduces the intensity of bleeding**

		acid on the severity of primary dysmenorrhea		number of pads consumed by the intervention group of 300 mg ginger-lavender capsules and the control group of 250 mg mefenamic acid capsules every 6 hours in the first 3 days of menstruation. They received 1 number.	

Review of plants

Fennel: One of the most important and widely used aromatic and medicinal plants is the fennel plant (Foeniculum vulgare Mill.) which has genetic diversity among species, low water requirement, and resistance to droughtFennel is a herbaceous, aromatic, and perennial plant from the family of The main ingredients The fennel plant contains and phenylpropanoids, hydroxycoumarins, pyranocoumarins, flavonoids, cardiac glycosides, tannins and fatty acids(27)Fennel is a well-known plant that is claimed to reduce the climacteric symptoms of women due to its antispasmodic and menstrual pain relief effects(28). Fennel has also been used in the treatment of colic in children and some respiratory disorders. The possible mechanism of the effect of fennel may be due to the structural similarity of antole present in fennel with dopamine, which binds to dopamine receptors and reduces pain (29)

European Thyme: the scientific name Thymus vulgaris L. Flavonoids of it include thymonin, isothymonin, thymosin, and luteolin, and the main components of the essential oil obtained from European thyme (garden) include thymol, carvacrol, and camphor. The plant is useful in the treatment of convulsions, respiratory diseases, smooth muscle spasms, and flatulence. One of the most common effects of the thyme plant is its antispasmodic effect on smooth muscles and It also has antimicrobial properties Abortion has also been reported as one of the side effects of using this plant, and it is necessary to adjust the dosage during use(30)

Medicinal chamomile (European): *(Matricaria Chamomilla L)*. pharmacological tests have shown that the main compounds of chamomile contain camphor, para-cymene, cineole, terpinene, carvacrol, and borneol. Also, the extract of European chamomile flowers contains flavonoids chrysin, luteolin, quercetin, and coumarin compounds), mucilage substances, polysaccharides, tannins, and fatty acids. It has an anti-inflammatory and antispasmodic effect and has a sedative and anti-anxiety effect and is used for digestive-nervous disorders, travel sickness, and colds(31).

Garden sage (medicinal): this plant, with the scientific name of Salvia, officinalis L. the important monoterpenes found in this plant include terpinolene and limbolene(32).it is very useful for joint pains, dizziness and migraines, body tremors, menstrual irregularities, and also menstrual pains and feminine discharges. It also has antiseptic properties. It has antioxidants rich in calcium, potassium, magnesium, and zinc and is a vasodilator(33).

Melissa officinalis L: is one of the most important species of medicinal plants, belonging to the mint family, Medicinal properties of the plant are due to the presence of a wide range of effective substances in it, the most important of which is a combination of the name is rosmarinic acid, which is the ester of caffeic acid and dihydroxyphenyl lactic acid. The biosynthesis of rosmarinic acid is started from two amino acids, phenylalanine, and tyrosine, and the key enzymes involved are phenylalanine enzyme, aminolyase, and tyrosine aminotransferase enzyme (34) This plant is known as a sedative, antispasmodic, antibacterial, and antiviral agent and is effective in the treatment of digestive disorders of nervous origin and anxiety(35)

Valerian (Valerian): Valerian with the scientific name Valeriana officinalis is a herbaceous plant belonging to the Valerianaceae family, From different varieties of valerian, 4 to 8% of essential oil have been reported, and the most important

components of essential oil are alpha and beta-pinene, Fanchon, camphene and pears. This essential oil also contains organic acids such as valeric acid and isovaleric acid, and generally, two groups of compounds have been identified in this plant. The compounds in the volatile oil include monoterpenes and compounds resulting from their decomposition. Fresh roots of valerian have more medicinal properties than their dried state. The root of valerian is used as a pain reliever and antispasmodic, and valernic acid present in its root has anti-muscle contraction properties. Various studies have shown the antispasmodic effect of this plant on smooth muscle(36)

Honey: Honey is a natural sweet substance produced by honey bees from the nectar of flowers or the secretions of living parts of plants that bees collect and carry these substances. Phenolic compounds are minor components of honey, but they contribute to biological activity to a great extent and include phenolic acids (gallic acid, caffeic acid, ferulic acid, and benzoic acid) and flavonoids (myristin, quercetin, and kaempferol)(37). The intensity of the color of honey has a lot to do with the chemical composition It depends on pigments such as chlorophyll, carotenoids, flavonoids, polyphenol derivatives, the content of phenolic substances, and minerals. By using pure honey, eye diseases can be prevented and many diseases can be treated. Due to the presence of enzymes and mineral salts, honey is effective in reducing menstrual pain, back pain, pure honey, headache concentration, and dilation of blood vessels(38)

Vitex: the scientific name Vitex agnus-castus L. It contains types of glycosides such as vitexin, orientin, and flavonoids such as castesin, iridoids, alkaloids, etrostoside, and agnoside such as ocubine(39). In Germany, reports on the effects of the plant were published, and a drug named Agnolite was prepared from it, which is used for menstrual disorders and menopause, and it was registered in the pharmacy book in Germany in 1996. In 1986, American and Canadian researchers introduced the herbal medicine Vitex to the pharmaceutical market as a herbal combination in order to balance the hormones of the woman's body and eliminate menstrual and menopause disorders (40)

Flax seed: Flax plant with the scientific name Linum usitatissimum L. The findings indicate that flaxseed oil contains a high percentage of unsaturated fatty acids, linolenic acid (74.5%). While the percentage of its saturated fatty acids is stearic acid (7.9%) and palmitic acid (6.3%), considering the presence of omega-3 and plant phytoestrogens in your seeds, this plant is probably useful in relieving premenstrual symptoms(21)

Ginger: Ginger with scientific name Zingiber officinale Rosc. 6- Gingerol is the most important of them, which has a spicy taste and significant antioxidant properties. Based on various research conducted on ginger, the antioxidant property of its various components such as gingerone, gingeradiol, zingiburn, and schwagel has been proven(41). The plant is used as a stomach booster and anti-flatulent, and Chinese doctors have found that ginger products are the best medicine for treating stomach ulcers. Ginger has the properties of anti-nausea and vomiting, anti-cough, anti-hepatic toxins and inflammation, diuretic and immune system stimulant(42)

Rosemary: The medicinal plant Rosmarinus officinalis L.. Rosemary contains compounds: camphor, linalool, borneol, myrtenol, limonene, and cineole(43). The use of rosemary extract for the stabilization of oils, production of health products, animal feed, food, and drink has been recognized. Rosemary medicinal plant is used in perfumery and cosmetic industries, and its medicinal properties such as antibacterial, antifungal, anticancer, antiflatulent, antimuscle contraction and have an effective effect on reducing the pain of dysmenorrhoea.

Lavender: This plant with the scientific name Lavandula angustiflia Miller or L. Ethanol, camphor, cineole, krypton, isobruneol, menthol, and thymol are among the compounds of this plant(44). This plant is used to create a calming, soothing, nerve calming and pain-relieving effect(45)

Discussion:

The amount of bleeding affects the synthesis of prostaglandins in the endometrium, so that at the end of the secretory phase and up to 48 hours of the menstrual cycle, prostaglandin E2 and prostacyclin, which causes vasodilation and the accumulation of platelets prevents local, increases in the uterus, while prostaglandin F2α, which causes vasoconstriction, decreases. Menstrual bleeding refers to the average amount, which is 4-6 days, and the normal volume of menstrual bleeding is 30 ml(46). Dysmenorrhoea and the severity of menstrual bleeding is one of the most common menstrual disorders that reduce the quality of life and disrupt women's social and work activities(47). Menstrual bleeding causes negative feelings in women's social and professional activities. Nonsteroidal anti-inflammatory drugs (NSAIDs) form the basis of treatment, and contraceptive pills are also used in treatment(48) Medicinal plants have long been used as the main component in the treatment of conditions such as menstrual bleeding all over the world, and Iran is no exception to this rule(48) Herbal fennel contains phytoestrogen compounds, whose seeds are used in traditional medicine as a tonic, stomach tonic, appetite suppressant, and antispasmodic. Akhwan Amjadi et al.'s study (1384) on fennel and its effect on the duration and intensity of menstrual bleeding showed that the extract does not increase the duration of bleeding (13) Also, in the study of Bekai et al. (2013) titled the study of the effect of fennel extract on the intensity and amount of bleeding, it

was shown that this plant can be used in people with moderate bleeding(14). Also, in the study of Zareeti et al. (2015) titled Comparative study of the effect of Vitagenus and fennel with mefenamic acid on the severity of primary dysmenorrhea, it was shown that fennel is effective in reducing the intensity of bleeding(23).

In the study by Ehsani et al. entitled "Investigation of the effect of the combined infusion of European thyme, sage, and chamomile on the intensity of bleeding" in 2013, the results showed that the combination of these three The plant is effective in reducing the intensity of menstrual bleeding (15). European thyme (garden) has antiseptic, antioxidant, anti-inflammatory, antispasmodic (49), Association of psychologic and nonpsychologic factors with primary dysmenorrhea(50). Iranian Red Crescent Medical Journal and relaxing properties Chamomile is a plant with anti-inflammatory, antispasmodic, antiflatulent, and sedative properties and is used in the treatment of dysmenorrhea(51). In Shabani et al.'s study titled "Effect of Ginger and Chamomile Plants on the Severity of Primary Dysmenorrhea", it was reported that chamomile alone and together with ginger is effective in reducing bleeding(22). Also, by acting on prostaglandin E2, St. John's wort prevents its biosynthesis, and as a result, it is effective in reducing menstrual pains, and it also causes blood vessels to open and helps blood flow out of uterine vessels6 properties such as antibacterial, antiviral and anti-spasm of the intestinal tract is used to treat migraine headaches, relax intestinal muscles, improve fatigue caused by menstrual disorders, relax stomach contractions that cause vomiting, and relieve stomach pain caused by nerves. One-sided headaches, dizziness, vomiting during pregnancy, and moodiness in women are effective(52). In the study by Mirabi et al titled Effects of Valerian on Bleeding and systemic manifestations of Menstruation (17), in 2018, it was shown that this plant does not increase the intensity of bleeding and the length of the menstrual period. The decoction of this plant is used for intestinal pains, relief of nervous problems, migraine headaches, menstrual disorders, and fatigue and has antimicrobial, antifungal and antispasmodic properties(53). Valerian has properties for the heart, brain, and stomach and is known as a strong sedative of the nervous system, a reliable medicine for nervous crises, anxiety, migraine treatment, nervous weakness and nervous headaches (54, 55) and It is effective in treating sleep disorder and depression (56) Mirabi et al conducted a study titled "Evaluating the effect of valerian capsules on the amount of menstrual bleeding" in 2011. The results of the research showed that the consumption of this plant does not increase the intensity of bleeding and the length of the menstrual period(17).

Honey is a valuable, nutritious, and energetic product and has antimicrobial and antioxidant properties that can directly or it can be used as a sweetener and preservative in food production(57). Some research on the existence of materials and gross on the initial menstrual intensity, amount of duration, and the interval between two bleeding showed that the amount of bleeding after taking each two types of honey decreased(18). The results of Ghafurvand et al.'s study (2014) titled comparing the effect of Vitagnos and flax seeds on menstrual bleeding showed that Flax seeds and Vitagnois were effective in reducing the intensity of bleeding (21).

The plant contains phytoestrogen compounds. Phytoestrogens are estrogen-like compounds in products they are plants that have estrogenic and anti-estrogenic properties. The exact mechanism of its effect has not been proven, however, It seems that by affecting the hypothalamus-pituitary axis, it reduces the release of follicle-stimulating hormone and prolactin(58) They regulate the release of LH from the pituitary gland, and this effect is due to the presence of chemical compounds in the vitagnus plant, such as Flavonoids, glycosides, saponins and fatty acids such as linoleic acid(59, 60). Also, the study by Zareeti et al. (2015) with the title of a comparative study of the effect of Vitagnos and fennel with mefenamic acid on the severity oPrimary dysmenorrhea showed that Vitagnos is effective in reducing the intensity of bleeding (23). Flaxseed is a good source of omega-3 essential fatty acids of the alpha-linoleic acid type, which has antioxidant properties. It is also a valuable source of fiber, minerals, and vitamins(61) In Shabani et al.'s article (2018) entitled "Investigation of the effect of ginger and chamomile on the severity of early dysmenorrhoea", it was reported that this combination and both chamomile and ginger alone are effective in reducing bleeding(22) Ginger has anti-inflammatory effects, and the anti-inflammatory effects of ginger may occur by inhibiting the production of prostaglandins and leukotrienes(62)., Ahmadi also conducted an article entitled "Comparative study of the effect of ginger-lavender and mefenamic acid combination on the severity of primary dysmenorrhoea". It can reduce the intensity of bleeding(26).

The properties of rosemary include antispasmodic, analgesic, antiflatulent, antimicrobial, anti-inflammatory, antioxidant, and effective in reducing menstrual bleeding. In Gol Khatami's study (2019) entitled Comparative Study of the Effect of Rosemary and Mefenamic Acid on Menstrual Bleeding and Dysmenorrhoea, it was pointed out that Rosemary capsules reduce menstrual bleeding and primary dysmenorrhoea as well as mefenamic acid capsules. reduces (24) Researchers reported several therapeutic properties such as anti-anxiety, anti-depressant, an anti-inflammatory, anti-spasm, analgesic,

antibacterial, antiparasitic, antiviral, sedative, antioxidant from this plant In 2022 Ahmadi et also conducted an article entitled a comparative study of the effect of ginger-lavender combination with mefenamic acid on the intensity of primary dysmenorrhoea. The result of the research showed that ginger and lavender have properties such as anti - Prostaglandin reduces the intensity of bleeding and the duration of bleeding(26). The present study is one of the few studies that investigated the effect of effective herbal medicines on the intensity and volume of menstrual bleeding and provided complete information about the properties and effects of these herbs, but it is recommended(63). the mentioned herbs should be tested with a larger volume and on human samples to fully prove their effectiveness of the mentioned herbs, so that a big step will be taken in the direction of women's health and also to help the medical staff to prescribe these herbs.

Conclusion

The use of plants that have analgesic, anti-inflammatory, antioxidant, anti-spasm, and anti-bloating properties can be introduced as an alternative to chemical drugs in reducing pain and severity of menstrual bleeding. For this purpose, it is necessary to conduct more extensive studies in this direction on people with different conditions to obtain more accurate results.

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