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Research Paper

Lactating Mother and the Benefits of Banana Stem Diet

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Abstract:
Many women worry about not producing enough milk, and inadequate milk production is often used as an excuse to supplement and stop breastfeeding early. To solve this issue, it is crucial to first take into account how breastfeeding frequency, babysucking, appropriate latch, and mother and neonatal health affect milk production. Additionally, any contributory factors should be addressed or made up for. Milk production is stimulated by drugs called oral galactagogues. They could be either non-pharmacological (natural) or pharmaceutical. Banana stem or flower has galactagogues properties, and it has been consumed during the postnatal period for more breastmilk production. On the other hand, little research has been done on the relationship between blood prolactin levels and banana stems and how they stimulate breast milk production. This review aimed to investigate the connection between the banana stem diet and blood prolactin. Following a comprehensive analysis of the literature, we have determined that the consumption of banana stems and the generation of breast milk are related. However, as the majority of the study sample sizes were quite small, more research with a larger number of participants is required.

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I. Introduction:

Women's bodies are designed to change with different stages of life. Even though we live in a highly evolved and technologically advanced world, many women are unaware of how important balanced meals are. Some of the reasons why women don't eat a nutrient-dense diet during pregnancy and lactation are cultural taboos and dietary beliefs.(1) Women are less likely than men to experience health problems related to food, such as anemia(2), and iodine and vitamin deficiencies. Breastfeeding mothers' dietary practices may impact the composition of their milk, and sufficient volumes of breastmilk are produced.(1)For the benefit of the developing foetus and the mother's health, adequate nutrition intake is linked to the offspring's neurodevelopment..(2,3)(4)Pregnant women's health is closely related to both the time of labour and lactation. Exclusive breastfeeding is strongly advised fornewborns for at least six months of life and can be practised for two years or more, according to the World Health Organization. (5) Breast engorgement, poor milk production, and cracked or sore nipples were the most prevalent issues faced by nursing mothers and most of the issues happened in the first week.(6) Breastfeeding mothers have difficulties since their breast milk production is quite low, thus they worry, stress, and get depressed thinking their baby won't be satisfied with adequate nutrients.Mothers may embrace breastfeeding more frequently if interventions to enhance early postpartum lactation and nursing practices are implemented.(7) Numerous new mothers have embraced a variety of techniques to increase breast milk production.

Few mothers benefit from the medications that are available on the market to yield more breastmilk. Mothers from low-income families and those who reside in rural areas still struggle with the same issues. To

resolve the breastfeeding problem, mothers consumed herbs such as fenugreek, banana stem, banana flower, moringa leaves etc.

The banana stem is a part of the banana plant that has been traditionally used in various cultures for its health benefits. Among its many uses, there is interest in its potential role as a galactagogue, a substance that promotes or increases the production of breast milk in lactating mothers.The banana stem and its flower have a galactagogues properties,(8)hence diet prepared from it is commonly used by the postnatal mother in various regions of south east Asia.There is an evidence of correlation betweenbanana flower consumption and the breastmilk production.(9–12). An analogous investigation was out in Thailand revealed the existence of phenolic chemicals and antioxidant activity, which would be advantageous for nursing mothers.(13)

Galactagogues are substances that promote or initiate the production of breast milk in lactating mothers.(14,15)Galactagogues can be nutritional, herbal, or pharmaceutical. Mothers who have low milk production or who want to boost their milk production for a variety of reasons—such as ensuring sufficient growth, meeting their infants' nutritional needs, or overcoming breastfeeding difficulties—often use them. Pharmacological galactagogues are drugs that raise the hormone prolactin, which is in charge of producing milk. A medication called domperidone is frequently used to increase the production of breastmilk, however the US Food and Drug Administration does not advise using it because of the possibility of cardiac issues.(16,17)They are typically recommended by medical practitioners and utilized in situations where other approaches have failed. Several mothers employed herbal galactogues to increase milk production(18) such as moringa oleifera(19), fenu Greek (13)Lactating mothers commonly used galactagogues to enhance breast milk production.(20)Banana stem, a part of the banana plant often overlooked, has gained attention for its potential health benefits. It is rich in fiber, vitamins, and minerals, and is used in traditional medicine and various cuisines.The connection between banana stem and blood prolactin level has not been thoroughly studied. The scholar has completed the bare minimum of review to address this relationship. As a result, this study of the literature seeks to identify and evaluate the research to broaden the body of information about the link between banana plants and blood prolactin levels during the postnatal period.

II. Materials And Methods:

Study design:

From July 10, 2024, to September 15, 2023, a comprehensive analysis of the published literature was carried out. To make sure we looked at the most recent research, however, we could not gather adequate information via an electronic search. Therefore, we included literature over the previous sixteen years, from 2008 to 2024.

Search strategy:

To choose the papers, we used the following databases: Embase, CINHAL (via EBSCOhost), Google Scholar, Cochrane Library, Scopus and MEDLINE (via PubMed). Using the Boolean operator OR between the terms postnatal, prolactin level, and galactagogues AND banana plant, breastfeeding problem OR lactation management, the search strategy was implemented. The Boolean operator AND was used to link search words with different meanings in order to filter the results. The Additional File describes the PubMed-MEDLINE search methodology.

Though customized to each database's distinct features, the process was the same for the others. We followed the PRISMA guidelines and gathered all relevant documents [19] and the documents were screened and arranged as per the guidelines. The details of documentation the search techniques and the results are shown (Fig. 1). Subsequently, all discovered papers' abstracts were reviewed to ascertain their applicability to this investigation.

Eligibility criteria: Considering that the goal of this evaluation of the literature is to investigate the connection between blood prolactin levels and banana stems, we selected papers based on the following standards: (1) research employing a quantitative methodology; (2) research involving new moms; (3) English-language papers; (4) herbal galactagogues for lactation management.

Data extraction and management

Our search databases include PubMed, Google Scholar, Cochrane library, CINHAL via EBSCOhost, and Embase resulting in 319 articles. 250 titles were chosen for relevance screening after duplicates were eliminated. Retrieval of twenty-nine articles was attempted. One article that employs the qualitative technique was disqualified because it did not meet our inclusion requirements. After examining the abstracts, another twenty-two papers were eliminated because they did not fall under the purview of our review and did not address the connection between the production of breastmilk and banana plants. Ultimately, after reading seven papers through to the end, we concluded that they were highly relevant to the objective of our systematic review.

III. Results:

Study selection: After removing duplicates, 250 of the 315 records that were initially found were reviewed for the first selection using the titles and abstracts. 221 of them were eliminated for a variety of reasons. A second screening of 29 records was conducted using a full-text review. Ultimately, this evaluation identified 7 studies that satisfied the inclusion criteria.(9,10,12,14,21–23). Most of the studies have been conducted in Thailand and Malaysia. A PRISMA flow diagram of the search summary details is shown in Fig 1.

Risk of bias assessment: The JBI Critical Appraisal Checklist for Systematic Reviews was employed in this study to evaluate the methodological quality of a study and to address potential bias. The tool was used by two reviewers to assess each article that met the inclusion criteria; disagreements arose in the debate and consensus between the two authors regarding the risk of bias assessment, with a third author being consulted in cases of persistent disagreement. All seven articles were found to meet quality standards and were included in the review.

IV. Discussion:

After 315 journal articles were examined for this systematic review, only 29 papers were chosen for further analysis because they included quantitative data on the association between postnatal mothers' herb galactagogues diet and breast milk output. Not all of these publications, meanwhile, specifically looked at the connection between blood prolactin levels and postpartum women's breast milk production. It was challenging to concentrate on this particular relationship because there were only seven articles that addressed it specifically. The chosen article focused mostly on the production of breast milk and its connection to banana plants, whether through direct eating of banana plant parts or extracted pills or biscuits.(10,21–23,23)However, it was not within the same power in all studies.It is determined that the Dhey et al. study is weak because of the small sample size and challenging generation.(9)We are highly unsure about the supporting evidence for the claims that natural milk boosters especially banana plant and b drugs can breast milk enhancement. We are also unsure if using any specific milk supplement has any hazards to the mother or child due to a lack of information. We need more high-quality research to be more definite about the effects of milk boosters.

V. Conclusion:

The results of this review indicate that the herb galactagogues, or banana plant, and the amount of breastmilk produced by nursing mothers suggested a positive correlation.

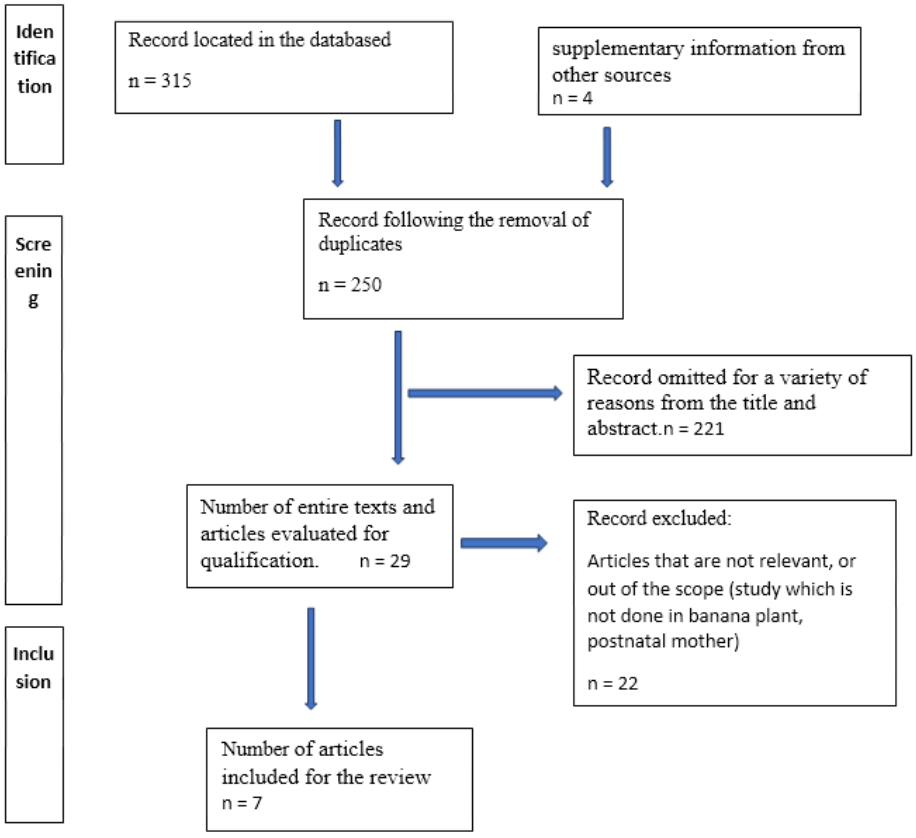

Fig: 1 PRISMA flow diagram describing the process of selection of articles.

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