JKM (Jurnal Kebidanan Malahayati),Vol 10, No. 9. September 2024,
ISSN (Print) 2476-8944 ISSN (Online) 2579-762X, Hal 895-902

INFLUENCE OF DATE FRUIT CONSUMPTION ON BREAST MILK PRODUCTION IN BREASTFEEDING MOTHERS

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ABSTRAK : PENGARUH KONSUMSI BUAH KURMA TERHADAP PRODUKSI ASI PADA IBU MENYUSUI

Latar Belakang : Menyusui bukan sekadar pengalaman menjalin ikatan antara ibu dan anak; itu juga merupakan sumber nutrisi penting bagi bayi. Namun banyak ibu yang mengalami kendala dalam mempertahankan pemberian ASI eksklusif karena produksi ASI yang tidak mencukupi. Nutrisi ibu hamil memainkan peran penting dalam mengatasi masalah ini, dan salah satu solusi yang sering diabaikan adalah konsumsi kurma. Kurma, yang secara ilmiah dikenal sebagai Phoenix dactylifera, telah terkenal karena manfaat nutrisinya selama berabad-abad. Kaya akan galaktagog, protein, dan kalori, kurma telah menunjukkan potensi menjanjikan dalam meningkatkan produksi ASI. Artikel ini mendalami penelitian yang dilakukan di wilayah Puskesmas Kotabumi II pada tahun 2023.

Tujuan penelitian : Diktetahui pengaruh konsumsi buah kurma terhadap produksi ASI ibu menyusui.

Metode : Penelitian ini menggunakan pendekatan kuantitatif dengan desain pra-eksperimental dengan menggunakan metodologi two-group test-post test. Populasi penelitian adalah ibu nifas di wilayah Puskesmas Kotabumi II, dengan jumlah sampel yang dikumpulkan pada bulan Agustus 2023 sebanyak 30 orang. Melalui purposive sampling, 15 orang ibu dimasukkan ke dalam kelompok intervensi, sedangkan 15 orang lagi menjadi kelompok kontrol.

Hasil Penelitian :Analisis statistik, menggunakan uji Mann-Whitney, menunjukkan nilai p signifikan sebesar 0,028<0,05. Hasil ini menunjukkan adanya pengaruh nyata konsumsi buah kurma terhadap kelancaran produksi ASI pada ibu menyusui di wilayah Puskesmas Kotabumi II pada tahun 2023. Temuan ini menggarisbawahi potensi kurma sebagai solusi alami untuk meningkatkan tingkat keberhasilan menyusui.

Kesimpulan adanya pengaruh nyata konsumsi buah kurma terhadap kelancaran produksi ASI pada ibu menyusui

Saran :Dengan dosis anjuran 100 gram atau kurang lebih 8 buah kurma setiap hari selama 7 hari, ibu bisa memanfaatkan manfaat alternatif non farmakologi ini.

Kata Kunci: ASI, ASI, Buah Kurma, Ibu

ABSTRACT

Background: Breastfeeding is not just a bonding experience between a mother and her child; it's also a vital source of nutrition for the infant. However, many mothers face challenges in maintaining exclusive breastfeeding due to insufficient breast milk production. Maternal nutrition plays a crucial role in addressing this issue, and one often-overlooked remedy is the consumption of dates. Dates, scientifically known as Phoenix dactylifera, have been celebrated for their nutritional benefits for centuries. Rich in galactagogue, protein, and calories, dates have shown promising potential in boosting breast milk production. This article delves into a study conducted in the Kotabumi II Community Health Center area in 2023.

Purpose : The aim of this research is to determine the effect of dates on breast milk production

Method: Exploring the influence of date fruit consumption on breastfeeding mothers' milk production. The research employed a quantitative approach with a pre-experimental design, utilizing a two-group test-post test methodology. Postpartum mothers in the Kotabumi II Community Health Center area constituted the study population, with a total of 30 samples collected in August 2023. Through purposive sampling, 15 mothers were assigned to the intervention group, while another 15 formed the control group.

Result : Statistical analysis, employing the Mann-Whitney test, revealed a significant p-value of 0.028<0.05. This outcome suggests a tangible influence of date fruit consumption on the smoothness of breast milk production among breastfeeding mothers in the Kotabumi II Community Health Center area in 2023. These findings underscore the potential of dates as a natural solution to enhance breastfeeding success rates.

Concluison a tangible influence of date fruit consumption on the smoothness of breast milk production among breastfeeding mothers

Suggestion dosage of 100 grams or approximately 8 pieces of dates daily for a duration of 7 days, mothers

can harness the benefits of this non-pharmacological alternative.

Keywords: Breastfeeding, Breast Milk, Date Fruit, Mother,

INTRODUCTION

Breastfeeding is crucial for optimal physical, mental, and cognitive development of infants. The recommended method of feeding infants is exclusive breastfeeding from birth to 6 months of age, followed by continued breastfeeding until the age of 24 months. Starting at 6 months of age, infants should receive complementary foods that are nutritious according to their developmental needs (Ministry of Health of the Republic of Indonesia, 2013).

The World Health Organization (WHO) and the United Nations International Children's Emergency Fund (UNICEF) recommend that children should be exclusively breastfed for at least 6 months, with breastfeeding continued until the age of 2 years. According to WHO data (2018), out of 136.7 million babies born worldwide, only 32.6% are exclusively breastfed during the first 6 months. In developing countries, only 39% of mothers exclusively breastfeed their babies.

Efforts to increase breast milk production can be done in various ways. One of the foods that pregnant and breastfeeding mothers can consume to enhance breast milk production is dates. Dates are rich in nutrients, containing carbohydrates, fiber, calcium, potassium, B complex vitamins, magnesium, and iron (Fungtammasan & Phupong, 2021). Dates provide various nutrients and hormones. Dates contain a hormone called patuchin, which helps bind the uterus and uterine muscles, thus aiding in reducing postpartum bleeding. This hormone also stimulates contractions in the veins surrounding the mother's breasts, thereby stimulating the mammary glands to produce breast milk (Vitriani, 2021).

RESEARCH METHODS

Breastfeeding is a cornerstone of infant nutrition, fostering optimal growth and development during the critical early months of life. However, many mothers encounter challenges in maintaining smooth breast milk production, jeopardizing this vital source of nourishment for their infants. In response, this study explores the efficacy of date fruit provision as a natural remedy to enhance breastfeeding mothers' milk production. Through a meticulous quantitative research design, the study illuminates the pathways to smoother breastfeeding experiences for mothers in the Kotabumi II Community Health Center area.

Employing a pre-experimental method with a one-group pretest-posttest design, the study delves into the impact of date fruit provision on breastfeeding mothers' milk production. Purposive sampling techniques were utilized to recruit 30 mothers experiencing lactation issues, ensuring a diverse yet focused sample population. Divided into intervention and control groups, the study meticulously navigates the inclusion and exclusion criteria, setting the stage for a rigorous investigation into the efficacy of date fruit as a lactation aid.

With ethical clearance secured and informed consent obtained, the study embarks on the intervention phase, administering green bean extract—a processed derivative of date fruit—to participants. Dosages are carefully calibrated, adhering to standardized protocols to ensure consistency and efficacy. Throughout the intervention period, researchers meticulously monitor participants' breast milk production, employing a comprehensive observation sheet to capture key indicators of smoothness.

Data analysis unfolds through a multifaceted lens, encompassing univariate and bivariate analyses to elucidate the influence of date fruit provision on breast milk production. Utilizing SPSS software, researchers meticulously dissect the nuances of breastfeeding dynamics, examining differences before and after treatment. Prior to analysis, rigorous normality tests are conducted, ensuring the robustness and validity of the findings.

As the findings emerge, a clearer picture of date fruit's potential as a lactation aid begins to crystallize. Beyond the confines of this study, the implications extend to broader discussions surrounding maternal and infant health. With further research and exploration, date fruit provision could emerge as a viable, natural solution to enhance breastfeeding outcomes, empowering mothers to navigate the complexities of lactation with confidence and ease.

In the delicate dance of breastfeeding, every drop of breast milk is a testament to a mother's love and dedication. Through the lens of this study, date fruit emerges as a beacon of hope, offering a natural remedy to bolster breastfeeding mothers' milk production. As we celebrate the innate wisdom of nature, let us continue to explore and harness the potential of botanical allies, unlocking new pathways to maternal and infant well-being.

RESEARCH RESULTS

A recent analysis of demographic characteristics in an intervention versus control

 DOI 10.33024, http://ejurnalmalahayati.ac.id/index.php/kebidanan

group study presents intriguing findings, especially in age distribution and occupational status among participants. The data, as outlined in Table 1 of the study, highlights a compelling age-related trend within both groups.

Table 1
Characteristics of Breastfeeding Mothers in the Working Area of Kotabumi II Community Health Center Year 2023

Respondent characteristics	Intervention Group Control	Group
17-30	11(73,3%)	12(60,0%)
31-40	4(26,7%)	3(20,0%)
Primipara	6(40,0%)	7(46,7%)
Multiparous	9(60,0%)	8(53,3%)
Housewife	11(73,3%)	12(80,0%)
Teacher	1(6,7%)	1(6,7%)
Laborer	3(20,0%)	2(13,3%)

Within the age bracket of 17-30 years, a significant majority is evident, comprising 73.3% (11 individuals) of the intervention group. Similarly, the control group shows a prevalence in the same age range, accounting for 60.0% (12 individuals). This consistency suggests that younger adults are predominantly represented in both groups, underscoring the focus on this demographic in the study's framework.

In terms of parity, which indicates the number of times an individual has given birth, the study reveals less frequent occurrences of Primipara (first-time mothers) in both groups. In the intervention group, Primipara participants constitute 40.0% (6 individuals), while in the control group, they make up 46.7% (7 individuals). This similarity provides an interesting perspective on the parity distribution among the participants, indicating a balanced representation of first-time mothers across both study segments.

Occupationally, the study points out a high percentage of homemakers, locally referred to as IRT (Ibu Rumah Tangga), in both groups. An overwhelming 80.0% (12 individuals) in each group are homemakers. This uniformity in occupation across the intervention and control groups might reflect the study's target demographic or the prevalent employment status within the community where the study was conducted.

These demographic insights not only aid in understanding the profile of study participants but also help in analyzing how these characteristics might influence the outcomes of the intervention. By focusing on a younger, predominantly homemaker population, the study may yield results that are particularly relevant to this demographic, offering targeted insights that could inform future interventions and policies.

Table 2
Smoothness of breastfeeding mothers' breast milk production before and after receiving date fruit intervention

Breast Milk Production Measurement	p-value
Intervention Group	0.074
Control Group	0.019

Recent findings from a pivotal study shed light on the distribution characteristics of data within intervention and control groups, as detailed in Table 2. The results from normality tests, which are crucial for determining the appropriate statistical methods for further analysis, reveal contrasting p-values that prompt a deeper investigation into the data's underlying distribution.

For the intervention group, the normality test returned a p-value of 0.074, suggesting that the data might not deviate significantly from a normal distribution but still does not meet the conventional threshold ($p > 0.05$) used to affirm this assumption. On the other hand, the control group presented a p-value of 0.019, clearly indicating a deviation from normal distribution as it falls well below the typical cutoff.

The differing outcomes of these normality tests are significant as they guide the choice of subsequent analytical techniques. Since at least one group's data does not follow a normal distribution, the study opts for the Mann-Whitney test—a non-parametric test that is more robust to non-normal data distributions. This test will allow the researchers to compare the two groups effectively, without the

strict assumption of normality that other tests like the t-test would require.

Univariate Analysis

Table 3
Breast Milk Production Smoothness in Breastfeeding Mothers Before and After Date Fruit Intervention

Smooth Breastfeeding	Mean	Median Deviation	Std
Pre Intervention	3,93	4,00	.799
Post Intervention	5,67	6,00	.976

Table 3 from a recent study provides a compelling snapshot of the intervention group's performance before and after the implementation of a specific program, highlighting significant improvements in their outcomes.

Before the intervention, the analysis shows that the group had an average score (mean) of 3.93, which was characterized as 'not smooth,' indicating some challenges or inconsistencies in performance. The median score, closely aligning with the mean at 4.00, confirms this lack of smoothness in the data distribution, reflecting a similar trend of variability or difficulty. Additionally, the reported standard deviation of 0.799 points to a moderate spread of scores around the mean, further underscoring the unevenness in pre-intervention results.

However, the scenario dramatically shifts when observing the post-intervention outcomes. Here, the mean score escalates to a robust 5.67, described as 'smooth,' suggesting a smoother and more consistent performance among the participants. The median, rising to a solid 6.00, supports this improvement, indicating a significant enhancement in central tendency and general participant achievement. The standard deviation, although slightly higher at 0.976, implies that while the spread of scores increased, the overall higher scores reflect a positive shift in performance levels.

This stark contrast between the pre- and post-intervention results not only illustrates the effectiveness of the intervention but also highlights how such measures can significantly enhance group performance. By moving from a 'not smooth' to a 'smooth' performance rating, the intervention evidently addressed key underlying issues, leading to a more consistent and elevated performance across the board. Such findings are crucial for understanding the value and impact of targeted interventions in group settings.

Table 4
Breast Milk Production Smoothness in Breastfeeding Mothers Not Given Date Fruit Intervention

Smooth breastfeeding	Mean Deviation	Median	Std.
Pre control	3,20	3,00	.862
Post control	4,87	5,00	.834

Recent findings from a study focusing on a control group reveal nuanced details about their performance, as depicted in Table 4. This analysis captures the essential statistical shifts from the pre-intervention phase to the post-intervention phase, offering insights into the natural progression or external influences affecting the group.

I nitially, before any intervention was applied, the control group exhibited a mean score of 3.20, described as 'not smooth,' suggesting a relatively lower and inconsistent performance level. This is further underscored by a median score of 3.00, aligning closely with the mean and reinforcing the irregularity in results. The standard deviation, recorded at 0.862, indicates a fairly wide variance, implying that individual scores varied significantly from the average, highlighting disparity in participant outcomes.

However, the post-intervention phase presents an intriguing shift. The mean score improved significantly to 4.87, maintaining its 'not smooth' characteristic, which indicates that while the average performance improved, inconsistencies still persisted. Contrastingly, the median score increased to 5.00 and was characterized as 'smooth,' suggesting that the central tendency of scores became more consistent and possibly less affected by extreme values than the mean. The slight decrease in the standard deviation to 0.834 from the pre-intervention phase indicates a narrower spread of scores around the new mean, pointing to a reduction in variability among participant outcomes.

These results indicate not only the inherent fluctuations within the control group over time but also hint at external factors or natural adjustments within the group that might have contributed to the improved scores, despite the absence of targeted interventions. The detailed analysis of these shifts provides valuable insights into the dynamics within control groups and helps contextualize the overall

 DOI 10.33024, http://ejurnalmalahayati.ac.id/index.php/kebidanan

impact and effectiveness of interventions when compared to natural group evolutions.

Bivariate Analysis

Recent research conducted at the Kotabumi II Community Health Center in 2023 offers enlightening data on the impact of date fruit consumption on breast milk production among breastfeeding mothers. Table 5 from the study underscores the positive influence that dates can have, showcasing notable differences in performance scores between those who consumed date fruits and a control group who did not.

Table 5
The Influence of Date Fruit (Phoenix Dactylifera) Consumption on Breast Milk Production Smoothness in Breastfeeding Mothers

Smooth breastfeeding	*Mean*	*Median*	*Std. deviation*	*p-value*
Intervention Group	5,67	6,00	.976	0,028
Control Group	4,78	5,00	.834	

The group of breastfeeding mothers who were given date fruits showed significant improvements in their scoring metrics. They achieved a mean score of 5.67, labeled as 'smooth,' indicating a high level of consistency and quality in breast milk production. The median score aligns with this trend, standing strong at 6.00, also noted as 'smooth.' These figures suggest that date fruit consumption correlates with more uniform and potentially more nutritious breast milk output. Furthermore, the standard deviation of 0.976 reflects a relatively tight spread of scores, implying that most participants clustered around the higher mean.

In contrast, the control group, which did not consume date fruits, displayed lower performance scores. Their mean was 4.78, described as 'not smooth,' which hints at less consistency in the quality of breast milk production. The median score was 5.00, and although marked as 'smooth,' it still falls short of the intervention group's results. The standard deviation was slightly lower at 0.834, suggesting a bit less variability in results than the intervention group but also a lower overall performance.

The statistical analysis further strengthens these observations, with a p-value of 0.028, which is less than the standard threshold of 0.05. This significant result confirms the positive influence of date fruit on the smoothness of breast milk production, scientifically backing the traditional claims about the nutritional benefits of dates for breastfeeding mothers.

This study not only reaffirms the health benefits of dates but also highlights the potential for natural dietary supplements to enhance maternal health outcomes, offering a nutritious and natural alternative to promote better milk production for breastfeeding mothers.

DISCUSSION

Univariate Analysis

Average Breast Milk Production Smoothness in the Working Area of Kotabumi II Community Health Center

Breast milk, an indispensable source of nourishment for infants, plays a pivotal role in the growth, development, and immunity of newborns. This vital fluid, as outlined by Septaningtiyas et al. (2018), contains a complex array of nutrients essential for the early stages of life. Recognizing the fundamental importance of breast milk, the Kotabumi II Community Health Center has embarked on innovative dietary interventions to enhance its quality and production, particularly focusing on the inclusion of date fruits in the diets of breastfeeding mothers.

Historically, the average smoothness of breast milk production in these mothers was marked by a mean score of 3.93, classified as 'not smooth'. This initial measurement highlighted a significant room for improvement in the consistency and quality of breast milk available to infants.

Dates, a nutrient-rich fruit, emerge as a natural enhancer of breast milk production due to their high content of carbohydrates, fiber, calcium, potassium, B-complex vitamins, magnesium, and iron, as identified by Fungtammasan & Phupong (2021). These components are crucial for the comprehensive nourishment they offer, potentially transforming the breastfeeding experience from 'not smooth' to 'smooth'.

Exclusive breastfeeding, defined as the sole provision of breast milk to infants for the first six months of life, is a critical period where the quality of breast milk is paramount. Breast milk contains over 200 vital elements including proteins, fats, carbohydrates, vitamins, minerals, and immune-boosting substances, all intricately balanced to support the infant's health.

Amidst growing interest in traditional remedies, the use of date fruit in enhancing breast milk quality showcases a shift towards plant-based, natural medicinal solutions, revered for their health benefits and minimal side effects. However, the challenge often lies in the lack of detailed knowledge and guidance on the effective use of such natural remedies.

To address this gap, there is a pressing need for comprehensive guidance on the utilization of medicinal plants like dates. This guidance would cover crucial aspects such as dosage accuracy, appropriate timing and methods of consumption, and the selection of quality ingredients to ensure safety and maximized benefits.

By integrating dates into the dietary regimen of breastfeeding mothers, the Kotabumi II Community Health Center not only aims to elevate the smoothness and quality of breast milk but also empowers mothers with a natural, effective tool for nurturing their infants. This initiative not only enhances maternal and child health but also reinforces the importance of natural dietary interventions in medical practice.

Average Breast Milk Production in Breastfeeding Mothers After Date Fruit Intervention at Kotabumi II Community Health Center in 2023

At the Kotabumi II Community Health Center in 2023, a significant shift in breast milk production quality has been recorded, following the dietary introduction of date fruit to breastfeeding mothers. With an average post-intervention score of 5.67, categorized as 'smooth', this change underscores the nutritional power of dates in enhancing maternal health outcomes.

Dates, a staple in many health-conscious diets, are packed with a variety of essential nutrients. As detailed by Hammad (2014), these include iron, protein, fiber, glucose, and a rich assortment of vitamins and minerals such as calcium, sodium, and potassium. Particularly noteworthy is the glucose content of dates, which ranges between 50-57%, and their protein content, which is about 1.8-2%. These components play a critical role in boosting breast milk production, primarily by stimulating the release of prolactin—a hormone vital from pregnancy through to the breastfeeding period.

The scientific backing for the benefits of dates doesn't just stop at nutritional content. Research conducted by Dewi, Rahma Kusuma, et al. (2021) involved a detailed study with 15 participants who were observed over the initial postpartum days. Utilizing the Wilcoxon Signed Rank Test, a notable p-value of 0.01 was obtained, decisively indicating that dates significantly influence breast milk production.

This intervention not only highlights the nutritional potential of dates but also positions them as a viable, natural alternative in traditional medicine for enhancing lactation. The increase in breast milk production is not merely a numerical improvement but a critical factor in the success of maternal nutrition provision. Adequate breast milk production is seen as a cornerstone of successful parenting, providing essential nourishment that supports the infant's growth and immune system.

Moreover, the implications of this study extend beyond individual benefits to the mothers and infants involved. The results offer promising insights for broader healthcare practices, suggesting that integrating dates into dietary recommendations for breastfeeding mothers could significantly improve maternal and infant health outcomes globally.

The use of dates at Kotabumi II Community Health Center has not only improved the smoothness and quality of breast milk but has also reinforced the importance of natural, nutrient-rich foods in supporting critical life stages such as breastfeeding. This initiative serves as a model for other healthcare facilities aiming to incorporate more natural products into their nutritional programs to benefit postpartum mothers.

Breastfeeding Smoothness Scores Before and After Date Fruit Intervention in the Kotabumi II Community Health Center Area in 2023

In a pivotal study at Kotabumi II Community Health Center in 2023, 30 breastfeeding mothers were divided into two groups: 15 received date fruit intervention and 15 did not. This research aimed to explore the effect of dates on the quality of breast milk production, with findings revealing significant improvements in the intervention group.

Before the introduction of dates, the average smoothness of breast milk production was recorded at a mean of 3.93, described as 'not smooth.' However, after the intervention, this mean score rose to 5.67, categorized as 'smooth,' indicating a marked enhancement in the quality of breast milk.

The study's findings align with the research by Rana Tafrishi et al. (2021), which reviewed the combined effects of dates and fennel seeds on breast milk sufficiency. Tafrishi's research underscored the positive impact of consuming herbal remedies like fennel tea and dates, particularly noting that 80% of mothers in the intervention group reported improved smoothness in their breast milk production.

The science behind this improvement is rooted in the rich nutritional profile of dates. These

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fruits are a powerhouse of essential nutrients, including iron, protein, fiber, glucose, vitamins (biotin, niacin, folic acid), and minerals (calcium, sodium, potassium). Notably, potassium in dates plays a crucial role by blocking dopamine receptors, thereby stimulating the release of prolactin—a hormone vital for milk production from pregnancy through to breastfeeding. Moreover, the glucose and protein in dates enhance lactose synthesis, further boosting breast milk production.

The mechanism of prolactin release involves a fascinating neuro-hormonal pathway: when a baby suckles at the mother's breast, it triggers a chain of stimuli from the nipple and areola to the hypothalamus and then to the anterior lobe of the pituitary gland. This gland then releases prolactin into the bloodstream, directly stimulating the milk-producing glands in the breasts.

This comprehensive study not only highlights the benefits of dates in enhancing breast milk quality but also provides a natural and effective approach for breastfeeding mothers seeking to improve their milk production. With its foundation in both traditional wisdom and modern science, the use of dates as a dietary supplement is poised to become a recommended practice for new mothers, promoting healthier outcomes for both mother and child.

Bivariate Analysis

The Influence of Date Fruit (Phoenix Dactylifera) Consumption on the Smoothness of Breast Milk Production in Breastfeeding Mothers in the Kotabumi II Community Health Center Area, Year 2023

Recent research at the Kotabumi II Community Health Center has showcased the remarkable impact of date fruit (Phoenix Dactylifera) on the smoothness of breast milk production among breastfeeding mothers. A notable p-value of 0.028 in non-parametric tests strongly supports the positive influence of dates, underscoring a significant advancement in nutritional interventions for postpartum care.

The study harmonizes with findings from Prianti, Ani T. et al. (2020), where date fruit extract—specifically in the form of date juice—was administered to 15 mothers. An impressive 87.7% reported smooth breast milk production, a stark contrast to the control group's 40% smoothness rate. This disparity was statistically validated with a Chi-Square test result of $\rho = 0.023$, comfortably below the α-value of 0.05, thereby confirming the effectiveness of date fruit extract.

Further insights by Budiati, Tri et al. (2010) delve into the criteria defining 'smooth' breast milk production, which includes a range of maternal and infant indicators such as breastfeeding frequency, breast firmness, and infant sleep hours. For a mother's milk production to be considered smooth, she must exhibit at least five out of ten specified indicators, such as the correct breastfeeding latch position, which showed the most improvement at 93% effectiveness in the intervention group.

Date fruits are not only nutrient-rich but also contain galactagogues, which enhance milk production. They are also credited with containing patuchin hormone, pivotal in reducing postpartum bleeding and aiding in uterine recovery. This hormone facilitates contractions in the veins surrounding the mammary glands, boosting milk production efficiently.

This transformative research not only reaffirms the nutritional value of dates but also spotlights their therapeutic potential in enhancing maternal health. By integrating such natural resources into postpartum care, we can significantly improve health outcomes for mothers and infants alike, marking a promising step forward in dietary-based healthcare solutions.

CONCLUSION

A pivotal study conducted in 2023 at the Kotabumi II Community Health Center has unveiled significant findings regarding the consumption of date fruit (Phoenix Dactylifera) and its influence on breast milk production among breastfeeding mothers. The research, titled "The Influence of Date Fruit Consumption on the Smoothness of Breast Milk Production," meticulously recorded the breast milk smoothness scores before and after the introduction of date fruit to the diet of participating mothers.

Initially, the mothers exhibited an average breast milk smoothness score of 3.39, categorized as 'not smooth,' with a median score of 4.00 and a standard deviation of 0.799. However, post-intervention, the average score dramatically improved to 5.67, shifting into the 'smooth' category, with a median score of 6.00 and a standard deviation of 0.976. This stark improvement underscored the potent effects of dates on lactation quality.

The statistical backbone of the study, the Mann-Whitney test, corroborated these findings with a compelling p-value of 0.028, which is less than the threshold of 0.05. This statistic robustly indicates that the consumption of dates has a significant positive impact on the smoothness of breast milk production.

This research not only highlights the nutritional benefits of dates—a rich source of essential nutrients like glucose, fiber, and vitamins—but also positions them as a key dietary supplement

for enhancing the quality of breast milk. The findings advocate for the inclusion of dates in the diet of breastfeeding mothers, not just for their nutritional value but also for their functional benefits in improving milk production.

This study contributes a vital piece of evidence to the growing body of nutritional science and opens up new avenues for dietary recommendations in maternal health care. With such promising results, it's clear that the humble date fruit holds remarkable potential for supporting maternal and infant health on a broader scale.

SUGGESTION

It is recommended for breastfeeding mothers to consume dates because they have been proven to increase breast milk production non-pharmacologically

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