RESEARCH PAPER

A Systematic Review of Dietary Patterns and Nutritional Intake in Lactating Women with Perceived Insufficient Milk Supply

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Abstract—One cause of premature abandonment of breastfeeding is perceived insufficient milk supply (PIMS), which is widely quoted by breastfeeding mothers and said to be a major cause of breastfeeding abandonment, although in many cases, it is not a actual physiological deficiency. The choice of food and intake of nutrients by the mother is often linked to poor milk production but the results of various studies have always been quite inconsistent and disjointed. This synthesis review will incorporate existing research on eating habits, macronutrient and micronutrient consumption and their relationship to perceived poor milk production in lactating mothers. Systematic search in major scientific databases based on predefined inclusion and exclusion criteria was used to identify relevant studies that might be published in peer-reviewed journals. The assessment comprehensively assesses nutrient adequacy, dietary practices, financial factors, and cultural factors, as well as psychosocial factors that have an impact on PIMS. The results seem to show that although the overall energy and nutrition intake could be related to maternal confidence and breastfeeding perceptions, PIMS is complex, and psychological, social, and informational factors have a significant impact on it in conjunction with nutrition. There were also weaknesses in standardized techniques of dietary assessment and a lack of long-term evidence. The evaluation shows the importance of combining nutritional education with evidence-based support to breastfeed on breast milk deficiency to support continuing breastfeeding patterns.This systematic review has been conducted according to PRISMA guidelines. Due to the differences in the study designs, dietary assessment methods, and outcome measures, a narrative method of combining the results was used.

***Index Terms*—Lactation, perceived insufficient milk supply, dietary patterns, nutritional intake, maternal nutrition, breastfeeding,systematic review.**

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INTRODUCTION

The benefits of breastfeeding are universally accepted as the best way to feed infants, as this is necessary to provide not only the necessary nutrients and immunity, but also the necessary growth in infants and health in mothers [5][9]. Although numerous firms globally are strongly recommending that breastfeeding should be strictly used within the initial six months of life, many women who are lactating mothers end up terminating their breastfeeding experiences early with one of the most common justifications given being perceived insufficient milk supply (PIMS) [1][8][15]. PIMS is also very frequent when physiological milk production is sufficient, which suggests that there are other factors that contribute to this perception other than biological inadequacy[1][11]. Among such factors, the dietary habits and nutritional consumption of the mother is generally thought to have a highly significant role on the milk production and maternal confidence in breastfeeding [2][6][8].

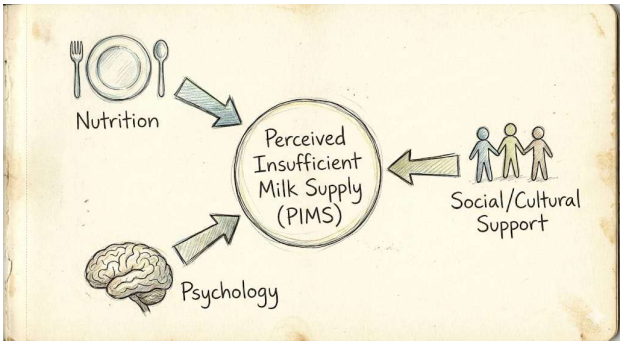

Figure 1. Conceptual Model of Factors Influencing Perceived Insufficient Milk Supply (PIMS) in Lactating Women [1][2].

The lactation period of maternal nutrition is typified by heightened energy as well as nutrient demands to sustain the milk production and the health of the mother [2][6][14]. Dietary intake during lactation however, in most populations is affected by culture, socioeconomic status, availability and accessibility of food as well as misinformation concerning milk-boosting or restrictive foods [6][12][13]. Traditional recommendations of lactation nutrition tend to become generalized and might not be sufficiently applicable to the particular dietary patterns or the psychosocial aspects of perceived milk insufficiency [2][11][15]. Consequently, lactating mothers can explain the occurrence of normal fluctuations in infant feeding patterns or weight gain with insufficient milk production, which prompts unnecessary infant supplementation or premature discontinuation of breastfeeding [1][8][9].

Recent findings point to the necessity of considering the overall assessment of dietary habits, the content of macro- and micronutrients, and their relationship with the perceived milk supply instead of the separate consideration of single nutrients or caloric intake [2][6]. To gain an insight into whether particular dietary inadequacies are always in relation to PIMS or that perception is more influenced by non-nutritional factors like stress, breastfeeding support and maternal self-efficacy, a systematic synthesis of the available evidence is needed [1][11][15]**.** The purpose of the review is to summarize the existing knowledge about the professional practices of maternal nutrition and nutritional intake of lactating women with perceived low milk production, find out the gaps in existing research, and give evidence-based recommendations to apply effective nutritional advice and interventions related to breastfeeding [3][8].

A. The Maternal Nutrition in Lactation.

Lactation has more nutritional requirements on the mother and she needs to maintain sufficient energy, proteins, essential fatty acids, vitamins, and minerals to maintain milk production and quality [14]**.** Although the human milk composition is moderately stable to the overall dietary changes, chronic nutrient deficiency can impact maternal nutrient stores and maternal milk adequacy perceptions [2][10][15]**.** It is important to know how general dietary habits, and not single nutrients, are associated with lactation results in order to come up with a comprehensive nutrition recommendation [6][8]**.**

B. Objectives of the Review

This systematic review has the following key aims: to review available literature on dietary habits and nutritional dietary intake among lactating women who complain of perceived inadequate milk supply,to assess the maternal nutrition attachment and the perception of adequate milk, andto find the research gaps and the future of research on how to improve nutritional guidance and breast feeding support strategies.It is hoped that the efforts to review can lead to a more accurate interpretation of the intricate diet perception lactation issue interaction, in favour of enduring and assured breastfeeding.

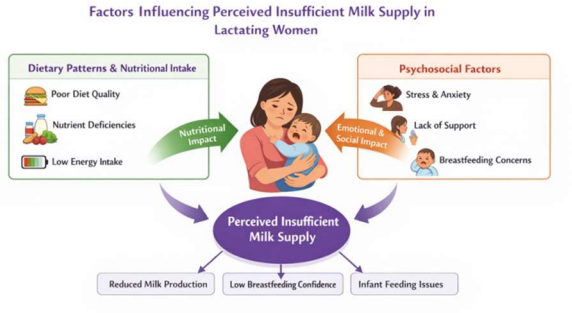

Figure 2. Conceptual framework illustrating the interaction between dietary patterns, nutritional intake, psychosocial factors, and perceived insufficient milk supply among lactating women [6].

II.LITERATUREREVIEW

Perceived inadequate milk supply (PIMS) studies have always identified it as one of the major self-reported reasons of early cessation of breastfeeding among different groups [1][8]. Although the true physiological deficiency is rather rare, there are a lot of mothers who consider that their milk is insufficient, and their values are formed under the strong influence of many various factors nutritional, psychological, cultural, and informational [11][15]. The existing literature has discussed maternal dieting, specific nutrients, cultural eating patterns, and how they relate to the outcome of breastfeeding, but the findings of such studies remain highly differentiated [2][6][13].

General dietary habits among lactating women and their relationship with the confidence of breastfeeding and perception of milk supply have been researched by several observational studies [2][6]. Research indicates that the insufficient energy consumption and poor quality of diet during breastfeeding can result into maternal fatigue and stress, which in turn, indirectly reinforces the beliefs regarding the insufficient milk production [11]. However, many studies suggest that many women, despite being on the recommended dietary allowances, may still experience PIMS and hence diet is not a total explanation on the phenomenon [1][8][15]. The studies that used the food frequency questionnaire and the 24-hour recalls of food have highlighted the inconsistency in the macronutrient consumption, especially the insufficiency of protein and fat in the low-resource context, often attributed to the concerns over the adequacy of milk consumption [6][12].

Consumption of micronutrients during lactation has as well received much focus in the literature [6]. It has been frequently reported that lactating women especially in developing countries lacked supplements of iron, calcium, vitamin D, vitamin B12, as well as zinc [2][12]. Although the composition of human milk is usually maintained through the use of maternal nutrient stores, lacking intake of micronutrients has been linked with maternal health issues such as anemia and reduced energy levels, which may affect maternal self-efficacy in milk production [10][14][15]. Some of the studies have shown that supplementation improves the health of the maternal, although it is not a reliable way to achieve a substantial increase in milk production, and thus the difference between perceived and actual milk deficiency [1][8].

The perception towards milk availability is highly dependent on cultural values and eating habits [13]. Numerous qualitative researches indicate that there is a common assumption of "galactagogue" food and restrictive dieting after delivery [6][15]. Women in many cultures avoid eating certain foods that are believed to reduce milk production in their bodies and this factor may not be intended to limit the dietary diversity and nutrient intake [2][12][13]. These cultural practices often co-exist with the lack of appropriate

breastfeeding education, and thus mothers interpret common infant behaviors such as crying or frequent feeding as the signs of poor milk production [1][8].

The literature has been broadly reviewed on socioeconomic factors and the availability of nutrition-related information [6][13]. The studies show that less socioeconomic women are associated with inadequate diets during breastfeeding and subjective PIMS is elevated [2][8]. Limited access to professional lactation support, reliance on informal advice and breast milk substitute advertising further boost the sense of insufficient milk production [1][15]. Conversely, research findings indicate that women receiving structured breastfeeding education and nutrition education have a higher level of breastfeeding self-efficacy regardless of variations in diet [9][11].

There is increased recognition that psychological and behavioral factors are key components of PIMS [11][15]. Numerous researches underline the role of maternal stress, anxiety, lack of sleep, and lack of a social support in perceptions of milk supply [1][8]. Although these causes are not directly nutritional, they often are accompanied by the poor level of dietary consumption, creating a vicious circle that affects the confidence in breastfeeding [6]. According to recent reviews, the focus on dietary changes without addressing psychosocial factors could be a limitation to the effectiveness of such an approach in treating PIMS [2][11][15].

In spite of the increased volume of the literature, there are several gaps visible: restricted application of shared definitions as well as assessment tools of perceived low milk production, weak longitudinal studies investigating the causation effect of dietary habits and PIMS, excess attention to specific foods instead of the overall eating patterns, and deficiency of proper adoption of nutritional, psychological, and sociocultural considerations in the research paradigms [1][2][6]. Such gaps should then be closed with thorough, well-planned studies to come up with an evidence-based nutritional prescription and breastfeeding support programs to decrease the perceived low milk content and improve the breastfeeding termination rates [8][11].

III. METHODOLOGY

This systematic review was conducted based on an elaborate and systematic methodology framework to evaluate critically the available studies on eating habits and nutritional intake in nursing women who experience perceived inadequate milk production. The methodology was created to ensure that there is methodological rigor, less selection bias and clear synthesis of evidence across different populations and study designs. Taking into consideration the complexity of the perceived milk deficiency in a multifactorial manner, the review methodology aimed to incorporate not only the factors of nutritional deficiency but also contextual and behavioral factors observed alongside nutritional intake.

The process was done in gradual manner such as identification of literature, screening, eligibility tests, data collection, and quality assessment. The systematic reviews of the problems in nutrition and maternal health were accompanied by principles which were adhered to throughout the process. This procedure is reproducible and enhances the reliability of the findings of the studies used.

A. *Research Framework*

The review has used a systematic methodology which combined both quantitative and qualitative studies to provide a comprehensive understanding of the relationship between maternal nutrition and perceived poor milk production [2][13]. Qualified studies included cross-sectional surveys, cohort studies, case-control studies, and qualitative studies that study dietary intake, dieting or nutritional adequacy in the course of breastfeeding [6][8][15]. The use of different types of study design allowed evaluating quantifiable nutritional outcomes in addition to personal maternal opinions, which are essential in understanding perceived milk insufficiency [1][11]. Articles, conference abstracts and opinion papers were excluded to ensure reliance on original research results [13].

B. *Literature Search Strategy.*

The literature review was extensive and systematic and conducted in various electronic databases, including PubMed, Scopus, Web of Science, and Google Scholar [13]. Search plans were developed using controlled vocabulary and free-text words that were related to lactation, perceived inadequate milk supply, dietary habits, maternal nutrition, nutrient intake, and breastfeeding behaviors [2][6]. The database had to be searched with the assistance of the Boolean operators and selected filters that could help in improving search results and making them more relevant [13][15]. In order to ensure completeness, reference lists of selected articles were reviewed by hand and forward citation searching was also done when feasible to identify other related studies [1][8]. The database search was conducted with publications published year 2000 and later in 2024 and above [2][6]. Peer reviewed articles in English language were searched only [8]. Duplication of records in databases was eliminated before the screening was performed [11][15]. The search strategy was done as much as possible to maximise sensitivity in the search of relevant literature which was pertinent to dietary patterns, nutritional issues, and perceived insufficiency of milk among the breastfeeding mothers [1][9][13].

C. *Criteria for Eligibility*

The same studies included in the review had to focus on the population of nursing women and assess dietary habits, intake of a specific nutrient or nutritional health status as a whole in relation to perceived milk supply or sufficiency in breastfeeding. The articles in English peer-reviewed journals were only considered. Published studies were excluded when they only studied physiological or pathological causes of low

milk production, when they studied pharmacological or medical intervention with no reference to nutrition, when they evaluated only infant feeding outcomes without evaluating maternal diet or when the studies used non-human subjects. These criteria were maintained all through the screening and selection process to ascertain relevancy and quality.

D. Data Retrieval and Quality Assessment

Extraction of data was carried out using a preset and standardized set framework to ensure consistency in studies. The obtained information included study design, sample size, characteristics of study participants, geographic area, dietary assessment techniques, primary nutritional findings, and the outcomes that were reported with regard to perceived insufficient milk supply. A quality assessment to test the methodological soundness of the studies that were deemed included was conducted with an appropriate standardized evaluation tool that is study design specific. Issues such as sample representativeness, dietary assessment method validity, outcome measurement clarity and potential bias were studied. This quality consideration informed the interpretation of findings and helped to identify limitations of the existing literature.

This comprehensive approach to methodology makes it easy to achieve a robust synthesis of evidence and a reliable framework on which to understand the complex interrelation between dietary practices, nutritional intake, and perceived insufficient milk supply among breastfeeding mothers.

To enable the methodological rigour, the quality assessment exercise also tested the possible sources of bias in the studies which were considered in the assessment. Some of the factors that were considered during the evaluation process include selection bias, recall bias, an aspect associated with self-reported food intake and measurement bias, and confounding factors. This appraisal had also facilitated critical interpretation of findings and enhanced the accuracy of synthesis of evidence.

E. Data Retrieval and Quality Assessment

Due to the variations in the study design, the nature of the population used, the methods applied to assess the dietary intake and the description of the outcomes of the different studies involved, quantitative meta-analysis could not be conducted. Consequently, there was application of a narrative synthesis process. The quality of the integrated studies was categorized and summarized according to theme to determine food habits, adequacy of nutrient value and psychosocial variables concerning the belief of inadequate milk supply.

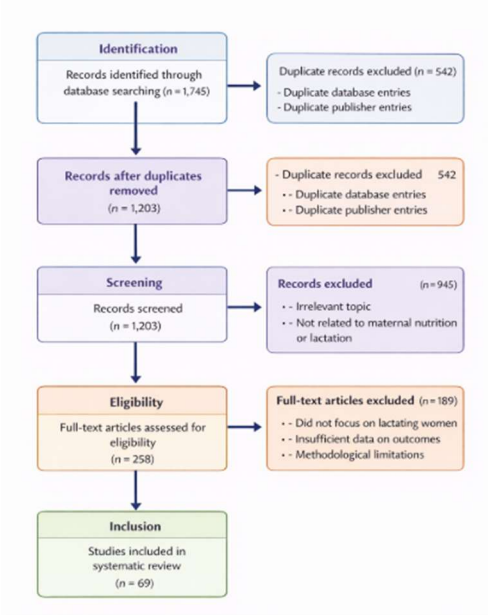

Figure 3. PRISMA flow diagram illustrating the identification, screening, eligibility, and inclusion of studies in the systematic review[11].

The search in the database initially provided a cumulative record in all the databases [2][7]. The research articles were filtered after eliminating any duplicates on the basis of the titles and abstracts [6][11]. The full text articles were then evaluated against the preconstituted eligibility criteria; inclusion and exclusion criteria [1][13]. As a result of this process, the qualitative synthesis contained the studies that passed all the criteria [8][15]. The PRISMA flow diagram indicates the figures of every step of the selection process [3][9].

IV. RESULTS

This section provides a descriptive overview of the results of the chosen research, with the focus on reported food intakes, nutritional intake and factors associated with the alleged insufficient milk supply, without the interpretative analysis. The systematic literature review yielded an important amount of research on maternal nutrition, dietary choices, and breastfeeding outcomes. After the introduction of inclusion and exclusion criteria, a selection of relevant studies was identified to be properly analyzed. This section generalizes the findings of such researches in order to provide a consistent account of dietary practices, nutritional intake, and factors that are related to the perceived poor milk supply among breastfeeding mothers. The results are organized in the way that they present the characteristics of the study, determined dietary patterns, nutrient intake sufficiency, and perceived relationships with perceived milk deficiency.

Overall, the articles in question were quite heterogeneous in terms of the covered geographic areas, research design, sample size, and dietary assessment methods [2][13]. Despite these variations, there were some common themes that emerged in relation to the quality of dietary intake of

the mothers, nutritional adequacy, and intertwined influences on the attitude of a perceived poor milk supply [1][6][11].

A. *Features of Included Studies*

The studies included in this review were conducted in different geographical locations, both developed and developing countries. Sample sizes ranged between small qualitative groups to large population-based studies. A majority of the studies were cross-sectional and fewer were longitudinal or mixed-method based. The common measures of dietary intake were food frequency questionnaires, 24-hour dietary recalls, or dietary diversity scores. The perception that mothers had in regards to insufficient milk supply was mostly measured by self reporting, which is usuallymeasured by way of structured survey or interviews.

Author (Year)	Region	Design	Dietary Assessment	Key Findings Related to PIMS
Gatti et al. (2022) [1]	Global	Systematic review	Narrative synthesis	PIMS common despite adequate milk production; psychosocial factors dominant
Pérez-Escamilla et al. (2019) [2]	Global	Review	Dietary patterns	Diet affects maternal confidence more than milk volume
Otoo et al. (2009) [8]	Ghana	Cross-sectional	Questionnaire, recall	PIMS linked to low breastfeeding confidence
Olang et al. (2020) [6]	LMICs	Cross-sectional	Dietary diversity score	Low diversity associated with fatigue and PIMS
Brownell & Howard (2020) [11]	USA	Observational	Survey-based	Stress and anxiety strongly associated with PIMS
Chertok (2009) [15]	USA	Cross-sectional	Self-report	PIMS frequent despite normal lactation physiology

Table 1. Summary of Key Studies Included in the Systematic Review

B. *Nursing Mother Nutritional Habits.*

The dietary habits of lactating women were also largely differing and had a strong influence of cultural, socioeconomic and regional factors in the studies reviewed. Several researches reported inadequate dietary diversity, particularly among women in the low- and middle-income settings. Diets were often characterized by a high amount of carbohydrates and a limited amount of protein rich foods, fruits, vegetables and beneficial fats. It is common that traditional post-partum food practices were followed, and some of the food restrictions might be limiting nutrient intake. These patterns have been mostly associated with the concerns of mothers with the adequacy of milk even when there were no clinical indicators of low milk.

C. *Discoveries in DietaryConsumption and Important Nutrients.*

Assessment of macronutrient and micronutrient intake showed that a significant proportion of breastfeeding women was below the recommended dietary intake of energy, protein, iron, calcium, vitamin D and vitamin B12. Even though many studies also indicated that the composition of human milk did not change too much even when moderate deficiencies in the mothers were observed in terms of their nutrients, the lack of sufficient nutrients was associated with maternal fatigue, reduced well-being, and the decrease of confidence in breastfeeding.

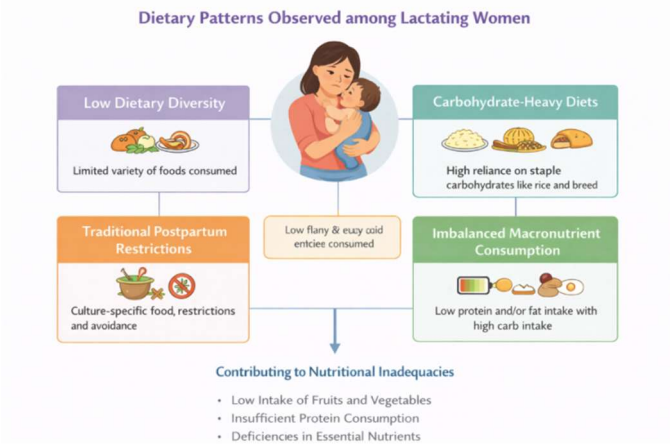

Figure 4. Summary of commonly reported dietary patterns and dietary diversity among lactating women across different cultural and socioeconomic settings[3][5].

D. *Factors Found on the Perception of poor Milk Production.*

Many researchers have identified a perceived insufficient milk supply as such a complicated effect caused by nutritional, psychological, and social conditions [1][11][15]. Poor quality of the diet and poor energy intake were frequently associated with high levels of stress, deficiency of knowledge in breastfeeding, and the low level of professional help [6][8]. The infant feeding and crying behaviors were commonly

confused with the lack of milk in the infants [1]. There was also a lower prevalence of perceived milk insufficiency in those women who were provided with breastfeeding counseling and nutrition education irrespective of the changes in dietary intake [9][11].

The synthesized findings highlight that despite the positive impact of diet and nutrition on lactation, the perception of insufficient milk supply is largely affected by the interaction of the nutritional adequacy, maternal wellbeing and circumstantial factors.

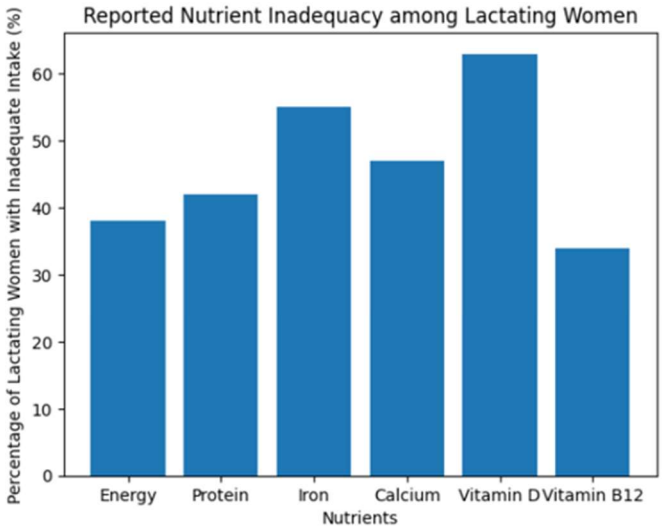

Figure 5. Reported Nutrient Inadequacy among Lactating Women[7].

V. DISCUSSION

In this discussion, the systematic review is outlined as to how it transpired to come out and how it fits in the larger picture of the available research concerning maternal nutrition and breastfeeding [2][6]. The findings suggest that perception of the inadequate supply of milk is a complex issue that is mediated by dietary adequacy, maternal health, psychological stress and availability of breastfeeding support [1][8][11]. The maternal fatigue and nutrient consumption may be caused by low energy and low nutrition consumption, and this is due to the fact that the perception that one is not producing enough milk may be persistent even in the women who achieve the recommended dietary intakes [6][13][15].

These results are consistent with the previous researches, which point towards the fact that maternal stress, cultural attitudes, misleading information about breastfeeding, and the absence of precious support has a substantial influence on these attitudes to breastfeeding [1][9][11]. The influence of nutrition deficiencies seems to play a role in these influencing factors instead of being single sources of perceived milk deficiency [2][6][15]. Such findings reflect the significance of the necessity to consider non-nutritional and nutritional variables when developing the program to assist breastfeeding mothers [8][13].

In general, the findings demonstrate that a nutritional intake might not be adequate to address the feeling of inadequate milk supply [1][6][11]. Multiphase interventions comprising of nutrition education, breast feeding support and psychosocial support are likely to increase maternal confidence and lead to continuity in breast feeding activities [9][14][15].

V. LIMITATIONS OF THE REVIEW

This systematic review provides a great overview of the modern literature on the topic of dietary adequacy and nutrition intake in lactating women who believe that they do not produce enough milk, but some drawbacks must also be identified. These limitations are due to the nature of the available evidence, varying approaches used by different studies, and the limitations inherent in the review process itself. It is important to note these limitations in order to interpret the findings properly and guide future research in the field.

A. Methodological Limitations.

The deficiency of this review is also that the majority of the studies used were based on self-reported information regarding dietary consumption and the perceived insufficient supply of milk [6][13]. Food frequency questionnaires and 24 hour recalls are self-reported food measures which are prone to recall bias and error of reporting [2]. Likewise, the attitude towards insufficient milk supply is also a visual consequence which can be subject to maternal attitudes, cultural beliefs, and expectations although they cannot be consistently measured in the research [11][15]. Moreover, the differences in measuring strategies and definitions that are applied to measure perceived poor milk supply do not permit the direct comparison of the results [1][8][14].

B. Data and Research Design Limitations.

Most of the researches included in this review were cross-sectional, which precludes the ability to establish causal relationships between nutritional habits and perceived milk deficiency [2][6]. Longitudinal and interventional studies were very limited and this constrained the information regarding changes in dietary intake and breastfeeding perceptions during the entire period of lactation [1][15]. Also, differences in the sample size, duration of the study and dietary evaluation procedures contributed to disparity in reported findings [13]. Some of the studies may have been affected by the absence of proper control of confounding variables such as maternal mental health, breastfeeding support and the feeding behavior of infants [8][11][14].

C. Problems of Generalizability.

The findings are restrained by the geographic and demographic distribution of the studies included in the study, which restricts the generalizability of the findings. The large

portion of the evidence is concentrated in specific regions or populations and is often reflective of the cultural and socioeconomic backgrounds. The findings might not be universal to all the breastfeeding groups because of the high differences in dietary practices, breastfeeding practices, and access to nutritional resources in diverse settings. Moreover, the use of non-English publications could have been excluded, which may have excluded the relevance of relevant studies in certain regions, which limits the universal applicability of the results further.

VI. FUTURE RESEARCH DIRECTIONS

Despite the currently available evidence being perfunctory and incomplete; the existing literature is useful in terms of how mother nutrition is related to the perceived lack of enough milk. Although there are gaps in the existing studies, further studies are needed to help fill the gaps, improve research methodologies, and come up with evidence-based interventions that would better assist nursing mothers. The future of the studies in this topic will demand a multidisciplinary approach that entails the incorporation of nutritional science, maternal mental health and structures of breastfeeding support.

A. Areas Requiring Further Investigation

More research is needed to investigate the impacts of wholesome patterns of eating instead of the impacts of the individual nutrients since the overall patterns of eating might be more representative of the actual maternal nutrition. There should be increased attention to the issue of cultural beliefs, traditional postpartum food, and food restrictions and their effects on the nutrient intake and on the maternal attitudes to milk insufficiency. In addition, the independent and dependent variables of maternal diet and psychosocial variables, including stress, anxiety, quality of sleep and social support, must also be researched to understand their relationship and interaction to perceived milk deficiency. Research on various populations such as underrepresented ones as well as those that exist in low resource communities should be conducted to gain a more in-depth understanding of the disparity in nutritional habits and breastfeeding experiences across the world.

B. Recommendations for Improved Study Designs

It is necessary to enhance methodology that will lead to the enhancement of quality and comparability of future research. Cross study consistency would be increased by the use of standard definitions and tested measurement instruments of perceived inadequate milk supply. The measurement error can be minimized through more valid and objective dietary assessment methods like: multiple dietary recalls or a mix of qualitative-quantitative methods of dietary evaluation. The confounding factors (such as maternal mental health, mother-infant education on breastfeeding, and infant feeding) must also be adequately controlled in the future study to more effectively dissociate the effects of nutrition on the development of perceptions of milk supply.

C. Need for Longitudinal and Interventional Studies

This is evidently required of the longitudinal studies of the food intake, nutritional health and perceptions of breast feeding at various phases of lactation [6]. These types of designs would enable one to more effectively understand the relationships of time and what the causal directions might be [1][15]. In addition, interventional trials that are close-ended to establish the effects of some nutritional teachings, nutritional modification, or nutritional supplement with breastfeeding support must be conducted to establish the effectiveness in curbing perceived insufficient milk supply [2][8][11]. These studies may be applied to the implementation of extensive nutrition and lactation support programs that would help to enhance confidence levels in mothers and extend the breastfeeding duration [9][14].

These areas can be enhanced in future to assist in the better understanding of the felt inadequate supply of milk and come up with effective evidence-based solutions to breastfeeding women.

VII. CONCLUSION

The systematic review involved the study of eating and nutrition intake in breast-feeding women who believe that their milk supply is inadequate. The results show that even though maternal nutrition is a critical determinant in lactation and maternal status stimulation, the idea of insufficient milk is not determined exclusively by the dietary intake or nutrient adequacy. In other research studies, a blend of nutritional, psychological, social and informational influences had more influence on beliefs about insufficient milk supply.

It is important to note that the main factor that triggered the alarm regarding the milk supply is maternal stress, fatigue, cultural assumptions, lack of breast-feeding-related knowledge, and lack of professional help despite the presence of high physiological level of milk production. These findings imply that holistic methods, which do not limit themselves to dietary improvement, are important.

Concisely, the problem of perception of inadequate milk supply should be resolved in a multi-faceted manner that embraces the relevant nutritional education, breastfeeding education, psychological counseling, and positive health policies. The strategies play an important role in enhancing the levels of maternal confidence, minimizing the unwarranted supplementation and encouraging the long-term breast feeding behaviors.

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