

Digestive Problems, Insensitivity to Lactose Intolerance, as Additive to New Environment as Correlate of Colic among Neonate in IJEBU-Ode Local Government Area, Nigeria

Awesu TK, Adeogun AO, Bello MO, Faleke MO and Ufoegbune CI*

Department of Health Education Research and Development, Tai Solarin University of Education, Ijebu-Ode, Nigeria

Abstract

Colic in neonates manifesting within the first few weeks of life and spontaneously resolving by three to five months, presents a significant challenge in pediatric healthcare due to its enigmatic nature and the distress it causes in affected infants and their families. This study investigated the maternal perceptions surrounding the causes and management of abdominal colic among neonates aged 0-28 days in the Ijebu-Ode local government area of Ogun state. Questionnaire containing items related to mothers' perceptions of the causes and management of abdominal colic in neonates were used. Participants were asked to respond to the questions by selecting pre-determined response options or providing brief explanations where necessary. Trained interviewers were available, where possible, to clarify any doubts and ensure that the participants understand the questions correctly. Completed questionnaires were collected and used for subsequent data analysis. Descriptive statistics was utilized to summarize the demographic characteristics of the participants, including tables showing frequencies and percentages of various variables related to maternal perceptions and practices regarding abdominal colic in neonates. Varied responses were given by the participants as regards their knowledge of causes and management of colic in infants. It was generally agreed that there is gap in knowledge of the real situation concerning colic in infants.

Keywords: Inconsolable crying • Behavioral aspects • Tummy aches • Herbs • Traditional healers

Introduction

Abdominal colic in neonates, characterized by episodes of excessive, inconsolable crying and perceived abdominal pain in otherwise healthy infants, remains a pervasive concern for parents and healthcare providers globally. This syndrome, typically manifesting within the first few weeks of life and spontaneously resolving by three to five months, presents a significant challenge in pediatric healthcare due to its enigmatic nature and the distress it causes in affected infants and their families [1]. Despite its high prevalence, affecting 5% to 25% of infants worldwide [2], the etiology of neonatal colic remains poorly understood, attributed variously to gastrointestinal discomfort, immature digestive systems, lactose intolerance, and even maternal anxiety or familial stress [3].

Research has suggested various potential causes of colic, ranging from gastrointestinal discomfort and immaturity of the gut to food hypersensitivity, and even psychosocial factors such as maternal anxiety and inadequate maternal-infant interaction [4]. Some caregivers

believe that colic is associated with other symptom such as diarrhea, fever and vomiting. These symptoms are not associated with colic and could be attributed to other diseases like malaria, gastroenteritis and even sepsis [5]. These assertions could make them to mistake these symptoms as normal and delay taking their babies to the hospital. This could lead to increase mortality and morbidity. These hypotheses reflect the multifaceted nature of colic, suggesting that its management requires a comprehensive approach that addresses both medical and behavioral aspects.

The impact of neonatal colic extends beyond the immediate physical distress to infants, significantly affecting parental well-being and family dynamics. Parents of colicky infants report higher stress levels, increased risk of postpartum depression, and feelings of helplessness and inadequacy due to their inability to soothe their child [6]. Such psychological stress underscores the importance of understanding maternal perceptions and management strategies for abdominal colic, as these beliefs and practices directly influence care approaches and the emotional climate within the family [7].

*Address for Correspondence: Ufoegbune CI, Department of Health Education Research and Development, Tai Solarin University of Education, Ijebu-Ode, Nigeria; E-mail: claraufogbune@gmail.com

Copyright: © 2025 Awesu TK, et al. This is an open-access article distributed under the terms of the creative commons attribution license which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

Received: 27 September, 2024, Manuscript No. JBHE-24-148979; Editor assigned: 30 September, 2024, PreQC No. JBHE-24-148979 (PQ); Reviewed: 14 October, 2024, QC No. JBHE-24-148979; Revised: 01 August, 2025, Manuscript No. JBHE-24-148979 (R); Published: 08 August, 2025, DOI: 10.37421/2380-5439.2025.13.182

In many cultures, the management of neonatal colic is steeped in traditional practices and home remedies, ranging from dietary adjustments for breastfeeding mothers to the use of herbal concoctions and physical interventions like belly massages or swaddling [8]. The use of native concoctions for infants with colic may be viewed as a common practice among mothers of different culture and tribes in Nigeria but the types of herbal medicine used may likely differ. For instance, "Ororo Ogiri" was the mostly used herbal medicine [9]. It is derived from putrefied *Cucumeropsis mannii* (melon) seeds which are used as a local food seasoning amongst the Yoruba tribe in Nigeria. When dissolved in water and taken by adults, it relieves indigestion by causing excessive flatulence [10]. The reliance on such varied practices highlights the global diversity in perceptions of colic's causes and appropriate management strategies. Moreover, the pervasive nature of self-medication and the use of unproven treatments signal a significant gap in parental education and the need for healthcare providers to offer evidence-based guidance and support to families navigating this challenging condition [11].

Materials and Methods

This study investigated the maternal perceptions surrounding the causes and management of abdominal colic among neonates aged 0-28 days in the Ijebu-Ode Local Government Area of Ogun State. It explored the perception of the effects of cultural beliefs, gaps in knowledge, and the accessibility of healthcare resources of maternal practices in addressing neonatal colic. By synthesizing insights from prior research, this study has enhanced our understanding of how maternal behaviors and healthcare infrastructure can be harmonized to promote the efficient and safe management of neonatal colic.

One of the key challenges in addressing neonatal colic is the variability in maternal understanding and response to the condition. While some mothers may rely on traditional remedies or cultural practices to alleviate their infant's symptoms, others may seek medical interventions based on recommendations from healthcare providers [12]. This discrepancy in approaches highlights the importance of understanding the factors influencing maternal decision-making in the management of colic. Furthermore, limited access to healthcare resources in certain communities may exacerbate the problem, leading to delays in seeking appropriate care and potentially impacting the outcomes for affected infants [13].

Against the backdrop of the study area in Ijebu-Ode local government area, Ogun State, Nigeria, where cultural practices and healthcare access may vary, there is a pressing need to elucidate the specific challenges faced by mothers in managing neonatal colic. By gaining insights into maternal perceptions of colic causes and management strategies, this study aims to inform the development of targeted interventions and healthcare policies aimed at improving outcomes for both infants and their families. Additionally, by identifying gaps in knowledge and resources, this research can contribute to the design of educational programs and support services tailored to the needs of the local community.

The study mainly examined the maternal perception of the causes and management of abdominal colic among neonates (0-28 days) in Ijebu-Ode local government area, Ogun State, Nigeria. The specific objectives were:

- Assessment of maternal understanding of the etiology and risk factors associated with neonatal abdominal colic.
- Exploration of the cultural beliefs and traditional practices influencing maternal perceptions of abdominal colic.
- Investigation of the healthcare-seeking behaviors and utilization of medical interventions among mothers for the management of neonatal abdominal colic.
- Identification of the gaps in knowledge and resources that may hinder effective management strategies for neonatal abdominal colic in the study area.

Research questions

- What are the maternal perceptions regarding the causes of abdominal colic in neonates?
- How do cultural beliefs and traditional practices influence maternal understanding of neonatal abdominal colic?
- What are the healthcare-seeking behaviors adopted by mothers for managing abdominal colic in neonates?
- What are the knowledge gaps and resource limitations hindering effective management of neonatal abdominal colic in the study area?

The study adopted a quantitative research design, which involved the collection and analysis of numerical data to examine relationships, patterns, and trends within the research context. The study was conducted in Ijebu-Ode local government area, Ogun State, Nigeria. Located in the southwestern part of the country, Ijebu-Ode is a bustling urban center with a diverse population representing various cultural and socioeconomic backgrounds. The study population consisted of mothers with neonates (0-28 days old) residing in Ijebu-Ode local government area, Ogun State, Nigeria. Mothers who have given birth within the previous month to the study were eligible to participate in the study. The study recruited a sample size of 200 mothers with neonates (0-28 days old) from Ijebu-Ode local government area, Ogun State, Nigeria. Purposive sampling method with self-structured questionnaire was used.

Ethical considerations for this study included obtaining informed consent from participants, ensuring confidentiality of collected data, and guaranteeing voluntary participation. Participants were informed about the purpose of the study, their right to withdraw at any time, and how their data will be used solely for research purposes.

The data was collected through the administration of self-structured questionnaires to the mothers by personal distribution or through electronic means, depending on the preferred mode of communication. The questionnaire contained items related to mothers' perceptions of the causes and management of abdominal colic in neonates. Participants were asked to respond to the

questions by selecting pre-determined response options or providing brief explanations where necessary. Trained interviewers were available, where possible, to clarify any doubts and ensure that the participants understand the questions correctly. Completed questionnaires were collected and used for subsequent data analysis.

Descriptive statistics was utilized to summarize the demographic characteristics of the participants, including tables showing frequencies and percentages of various variables related to maternal perceptions and practices regarding abdominal colic in neonates.

Results and Discussion

Presentation of data

Demographic variables of respondents: Table 1 showed the educational levels of the respondents, indicating a diverse range of

Item	Frequency	Percentage (%)
Level of education		
Primary school	14	14
Secondary school	39	39
Tertiary education	36	36
Postgraduate education	11	11
Total	100	100

Table 1. Respondents level of education.

Table 2 illustrated the marital status of the respondents, highlighting that the vast majority were married, comprising 77% of the sample. Single mothers make up 21% of the respondents, while divorced and widowed mothers each represented only 1%. This data suggested that most mothers in the study area were likely to have the

Item	Frequency	Percentage (%)
Marital status		
Single	21	21
Married	77	77
Divorced	1	1
Widowed	1	1
Total	100	100

Table 2. Respondents' marital status.

Table 3 presented the distribution of respondents based on the number of children they have. A significant majority, 64%, have one to two children, indicating a predominance of smaller family sizes among the respondents. Additionally, 29% have three to four children, while only 7% have five or more children. Notably, none of the

educational attainment among mothers in the study. A majority of the respondents, 75%, have at least a secondary school education, with 39% having completed secondary school and 36% having pursued tertiary education. Additionally, 11% have attained postgraduate education. Meanwhile, 14% of the respondents have only completed primary school. This distribution suggested that most mothers have a moderate to high level of education, which could have influenced their understanding and management of neonatal abdominal colic, as higher education levels are often associated with greater health literacy and access to healthcare information.

support of a partner, which could have influenced their perception and management of neonatal abdominal colic. The high percentage of married respondents might also have reflected cultural norms and social structures within the Ijebu-Ode local government area.

respondents reported having no children. This distribution suggested that most of the mothers in the study have some experience with child-rearing, which may have influenced their understanding and management of neonatal abdominal colic.

Item	Frequency	Percentage (%)
How many children do you have?		
None	0	0
1-2	64	64
3-4	29	29
5 and above	7	7
Total	100	100

Table 3. Respondents' number of children.

Table 4 illustrated the employment status of the respondents. The largest group, 46%, were self-employed, indicating a significant portion of respondents were engaged in entrepreneurial or independent work. This is followed by 32% who are employed in various occupations. Additionally, 12% of the respondents are students, while 10% are

unemployed. The diverse employment status of the respondents provided insight into the socioeconomic backgrounds and potentially varied perspectives on the causes and management of neonatal abdominal colic.

Item	Frequency	Percentage (%)
Employment status		
Employed	32	32
Self-employed	46	46
Unemployed	10	10
Student	12	12
Total	100	100

Table 4. Respondents' employment status.

Table 5 presented the monthly household income of the respondents. The majority, 42%, have a monthly income between ₦20,000 and ₦50,000, indicating a lower-middle-income bracket. Twenty-two percent of respondents earn between ₦50,001 and ₦100,000, reflecting a middle-income group. Additionally, 20% of respondents have an income below ₦20,000, highlighting a significant

proportion of households in the low-income category. Lastly, 16% of respondents have a household income above ₦100,000, representing the higher-income bracket. This distribution of income levels provided a comprehensive overview of the economic diversity among the respondents, which may influence their perceptions and management strategies regarding neonatal abdominal colic.

Item	Frequency	Percentage (%)
Monthly household income		
Below ₦20,000	20	20
₦20,000-₦50,000	42	42
₦50,001-₦100,000	22	22
Above ₦100,000	16	16
Total	100	100

Table 5. Respondents' monthly household income.

Table 6 outlined the number of previous pregnancies among the respondents. A significant majority, 61%, have had 2-3 pregnancies, indicating substantial maternal experience within this group. 23% of respondents have had only one pregnancy, suggesting a smaller group of relatively new mothers. 16% have had four or more pregnancies, representing mothers with extensive maternal experience. None of the

respondents reported having no previous pregnancies, ensuring that all participants have relevant experience for assessing perceptions and management of neonatal abdominal colic. This distribution highlights a diverse range of maternal experiences which could impact their understanding and approach to managing colic in neonates.

Item	Frequency	Percentage (%)
How many pregnancies have you had?		
None	0	0
1	23	23
2-3	61	61
4 or more	16	16
Total	100	100

Table 6. Respondents' previous pregnancies.

Table 7 presented the religious affiliations of the respondents. The majority of respondents identified with either Christianity or Islam, with 47% being Christians and 43% being Muslims. A smaller portion, 10%, adhered to traditional religions while none of the respondents indicated affiliation with other unlisted religious groups. This distribution

reflected the religious diversity within the study population, which could influence cultural beliefs and practices related to the management of neonatal abdominal colic. Understanding these religious affiliations was essential as they may have impacted maternal perceptions and the acceptance of certain colic management practices.

Item	Frequency	Percentage (%)
Religious affiliation		
Christianity	47	47
Islam	43	43
Traditional religion	10	10
Other	0	0
Total	100	100

Table 7. Respondents' religious affiliation.

The Table 8 presented data on maternal understanding of the etiology and risk factors associated with neonatal abdominal colic. It was evident that a significant proportion of respondents strongly agreed or agreed that excessive gas in the digestive system can cause neonatal abdominal colic, with 86% expressing agreement. This indicated a widespread understanding among mothers regarding the association between gas and colic in newborns. Feeding patterns, particularly overfeeding or underfeeding, were also recognized as potential contributors to neonatal abdominal colic, with 77% of respondents agreeing or strongly agreeing with this position. This highlighted an awareness of the importance of proper feeding practices in managing colic symptoms.

Notable proportion of respondents acknowledged the impact of maternal stress or worries on the exacerbation of colic symptoms, with 67% expressing agreement or strong agreement. This suggested recognition of the link between maternal well-being and infant health

outcomes. There was the recognition that stomach problems like lactose intolerance can lead to tummy aches in babies, with 78% of respondents agreeing or strongly agreeing. This indicated an understanding of the role of digestive issues in colic development among infants. Substantial percentage of respondents believed that exposure to cigarette smoke can worsen a baby's tummy ache, with 79% agreeing or strongly agreeing. This underscored an awareness of the fact that environmental factors exacerbated colic symptoms in newborns.

The results revealed a generally high level of maternal understanding regarding the etiology and risk factors associated with neonatal abdominal colic. The findings suggested that mothers are knowledgeable about various factors that can contribute to colic in infants, including gastrointestinal issues, feeding practices, maternal well-being, and environmental exposures.

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Excessive gas in the digestive system can cause neonatal abdominal colic	35 35%	51 51%	8 8%	5 5%	1 1%
Feeding patterns, like overfeeding or	26	51	15	6	2

underfeeding, can contribute to neonatal abdominal colic	26%	51%	15%	6%	2%
Too much stress for mothers or worries can worsen the symptoms of neonatal abdominal colic	22%	45%	16%	15%	2%
Stomach problems like lactose intolerance can make babies have tummy aches	27%	51%	9%	10%	3%
Breathing in cigarette smoke can make a baby's tummy ache worse	35%	44%	6%	10%	5%

Table 8. Maternal understanding of the etiology and risk factors associated with neonatal abdominal colic.

Table 9 provided insights into the influence of cultural beliefs and traditional practices on maternal perceptions of abdominal colic in infants. It presented statements relating to cultural factors affecting mothers' perception and responses babies' tummy aches, along with the respondents' levels of agreement with each statement. The data showed that a significant proportion of respondents acknowledged the impact of cultural beliefs on maternal perceptions of baby tummy aches, with 81% expressing agreement or strong agreement. This suggested that cultural factors played significant roles in shaping mothers view and interpretation abdominal colic in their infants.

The table also indicated that certain cultural practices, such as the use of herbs or special actions to alleviate baby tummy aches, were prevalent among the respondents, with 89% agreeing or strongly agreeing with this statement. These highlighted the influence of traditional remedies and rituals in managing colic symptoms in some communities. Furthermore, superstitions, old stories, and beliefs were recognized as factors that influenced maternal perceptions and treatment of baby tummy aches, with 81% of respondents agreeing or strongly agreeing. These underscored the importance of cultural narratives and folklore in shaping attitudes towards infant health issues.

Again, a substantial percentage of respondents indicated that some mothers seek help from traditional healers or spiritual leaders for baby tummy aches, with 79% agreeing or strongly agreeing. This reflected a reliance on alternative sources of care and support within certain cultural contexts. Cultural taboos or stigmas were perceived to affect mothers' willingness to seek medical care for infants with abdominal colic, with 77% of respondents acknowledging this influence. These suggested that cultural norms and societal pressures may act as barriers to accessing healthcare services for affected babies. The data also revealed that cultural rules or shame can deter mothers from seeking medical help for babies with tummy aches, with 69% of respondents agreeing or strongly agreeing. These pointed to the complex interplay between cultural norms, social attitudes, and healthcare-seeking behavior among mothers.

These results underscored the significant influence of cultural beliefs and traditional practices on maternal perceptions and responses to abdominal colic in infants. It showed the importance of cultural sensitivity and understanding, in addressing the needs of diverse communities and promoting effective healthcare delivery for babies with colic.

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Cultural beliefs affect how moms see baby tummy aches	33%	48%	11%	7%	1%
Some cultures use herbs (agbo) or special actions to help babies with tummy aches	36%	53%	3%	5%	3%
Some superstitions, old stories and beliefs affect how moms see and treat baby tummy aches	31%	50%	14%	3%	2%
Some moms sometimes ask traditional healers or spiritual leaders for help with baby tummy aches	30%	49%	10%	9%	2%

Cultural taboos or stigmas may affect mothers' willingness to seek medical care for their infants with abdominal colic	31	46	9	11	3
		46%	9%	11%	3%
Cultural rules or shame can stop moms from getting medical help for babies with tummy aches	25	44	11	15	2
		25%	44%	11%	2%

Table 9. Cultural beliefs and traditional practices influencing maternal perceptions of abdominal colic.

Table 10 gives information on healthcare-seeking behaviors and the utilization of medical interventions among mothers for the management of neonatal abdominal colic. Various statements relating to mothers' approaches to seeking medical advice and treatment for their newborns' colic, along with the respondents' levels of agreement with each statement were given. Majority of respondents (86%) often sought medical advice from healthcare professionals for the management of their newborns' abdominal colic. It suggested high level of reliance on conventional medical expertise in addressing colic symptoms among mothers surveyed. Significant proportion of respondents (66%) assumed that home remedies or self-purchased medicines alleviated their baby's tummy aches. This indicated a notable reliance on self-care practices and over-the-counter medications as alternative approaches to managing colic symptoms.

Relatively small percentage of the respondents (28%) expressed a preference for traditional healers or alternative medicine practitioners over conventional medical treatments for their newborns' colic. This pointed to diverse range of healthcare-seeking behaviors among mothers, with some opting for non-conventional approaches to colic management. The data highlighted the influence of cultural or socioeconomic factors on mothers' decisions to seek medical

interventions for their newborns' abdominal colic, with 63% of respondents acknowledging this influence. This gave the importance of contextual factors in shaping healthcare-seeking behaviors and treatment preferences among mothers.

Respondents also indicated that their previous experiences with healthcare providers influenced their healthcare-seeking behaviors for managing their newborns' abdominal colic, with 66% agreeing or strongly agreeing with this statement. Past encounters with healthcare professionals thus played a significant role in shaping mothers' attitudes towards seeking medical care for colicky babies. Respondents' level of education and access to healthcare facilities impacted their utilization of medical interventions for their newborns' abdominal colic, with 86% acknowledging this influence.

The result underscored the importance of understanding contextual factors, such as cultural beliefs, socioeconomic status, and past experiences, in designing effective interventions to support infants with colic and their families.

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I often seek medical advice from healthcare professionals for the management of my newborn's abdominal colic	42	44	9	4	1
	42%	44%	9%	4%	1%
I usually use home remedies or medicine I buy myself to help my baby's tummy aches	20	46	9	22	3
	20%	46%	9%	22%	3%
I prefer traditional healers or alternative medicine practitioners over conventional medical treatments for my newborn's colic	9	19	11	38	23
	9%	19%	11%	38%	23%
Cultural or socioeconomic factors influence my decisions to seek medical interventions for my newborn's abdominal colic	25	38	13	20	4
	25%	38%	13%	20%	4%
My previous experiences with healthcare providers affect my healthcare-seeking behaviors for managing my newborn's abdominal colic	27	39	10	18	6
	27%	39%	10%	18%	6%
My level of education and access to healthcare	39	47	5	8	1

facilities impact my utilization of medical interventions for my newborn's abdominal colic	39%	47%	5%	8%	1%
--	-----	-----	----	----	----

Table 10. Healthcare-seeking behaviors and utilization of medical interventions among mothers for the management of neonatal abdominal colic.

Table 11 showed gaps in knowledge and resources that may hinder effective management strategies for neonatal abdominal colic in the study area. It outlined various statements related to perceived challenges faced by mothers in seeking appropriate care and treatment for their babies' colic, along with the respondents' levels of agreement with each statement. Large proportions of respondents (84%) agree or strongly agree that there was lack of awareness among mothers regarding the causes and management of neonatal abdominal colic in the study area. This suggested a need for targeted educational initiatives to improve maternal understanding of colic and its management [14].

Many respondents (75%) believed that the lack of nearby hospitals makes it difficult to treat baby tummy aches effectively in the study area, highlighting an infrastructural challenge that may impede timely access to medical care for colicky infants and their families [15]. Substantial percentage of respondents (77%) expressed concerns about the insufficient help and information from doctors, making it challenging to treat baby tummy aches in the area. This underscored the importance of healthcare providers' role in offering guidance and support to mothers in managing colic symptoms.

Respondents also highlighted the impact of old beliefs and customs on hindering access to appropriate medical help for baby tummy aches, with 68% agreeing or strongly agreeing with this statement. This suggested a need for culturally sensitive interventions to address traditional practices that may affect healthcare-seeking behaviors. Financial constraints also posed a significant barrier to accessing necessary resources for managing baby tummy aches, with 82% of respondents acknowledging this challenge. The results are in agreement with past works [16]. Dearth of good hospitals and resources contributed to difficulties in providing adequate care for baby tummy aches in the study area, with 84% of respondents agreeing or strongly agreeing with this statement. This highlighted systemic challenges that may impact the quality of healthcare services available for infants with colic and their families. The results point to the need for comprehensive strategies to address knowledge gaps, improve healthcare infrastructure, and support families in accessing appropriate care for infants with colic [17].

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
There is a lack of awareness 39 among mothers regarding the causes and management of 39% neonatal abdominal colic in my area	45	45%	9	7	-
Not enough hospitals nearby 28 makes it tough to treat baby tummy aches well in this area 28%	47	47%	10	11	4
Not enough help and 29 information from doctors makes it hard to treat baby tummy aches 29% in this area	48	48%	6	15	2
Old beliefs and customs make it 27 hard to get the right medical help for baby tummy aches in 27% this area.	41	41%	14	13	5
Not having enough money 32 makes it tough for moms to get what they need to help babies 32% with tummy aches in this area	50	50%	4	10	4
The lack of good hospitals and 34 resources makes it hard to give good care for baby tummy 34% aches in this area	50	50%	4	6	6

Table 11. Gaps in knowledge and resources that may hinder effective management strategies for neonatal abdominal colic in the study area.

Conclusion

This study has provided valuable insights into maternal perceptions regarding the causes and management of neonatal abdominal colic in the Ijebu-Ode local government area of Ogun State. It revealed that while most mothers have a reasonable understanding of colic, associating it primarily with gastrointestinal issues, improper feeding patterns, and environmental factors, significant gaps in knowledge and resource availability remain. Cultural beliefs and traditional practices heavily influence colic management strategies, often intersecting with socio-economic constraints that limit access to adequate healthcare.

Therefore, addressing neonatal abdominal colic effectively in this community requires a multifaceted approach. Enhancing maternal education on colic causes and management, improving healthcare infrastructure, and providing culturally sensitive support and interventions are critical. By closing these gaps, we can better equip mothers with the knowledge and resources needed to manage colic, ultimately improving neonatal health outcomes in the region.

Recommendation

Based on the findings of this study, the following recommendations are put forth:

- Health authorities, in collaboration with community leaders, should develop and implement targeted educational programs for mothers. These programs should include workshops, community seminars, and distribution of educational materials that provide comprehensive information on the causes, symptoms, and management strategies for neonatal abdominal colic.
- The government, along with Non-Governmental Organizations (NGOs), should work to enhance the availability and accessibility of healthcare services in the Ijebu-Ode Local Government Area. This can be achieved by increasing the number of healthcare facilities, ensuring they are well-staffed and equipped, and establishing more community health centers and mobile clinics to reach remote areas.
- Healthcare institutions should focus on training programs for healthcare providers to ensure they are knowledgeable about the latest colic management techniques and effective communication strategies. Regular follow-up visits and accessible consultation services should be provided to ensure mothers receive accurate and timely information and feel supported in managing neonatal colic.
- The government and social welfare agencies should introduce financial assistance programs to help alleviate economic pressures on families. This could include subsidized healthcare services, affordable medication for colic, and partnerships with NGOs to provide resources and support to low-income families, ensuring that all mothers can access necessary care for their infants.
- Cultural leaders and health educators should work together to promote an integrative approach that combines beneficial

traditional practices with modern medical advice. Engaging with community leaders, traditional healers, and religious figures can facilitate this integration.

References

1. Akhnikh, Samira, Adele C Engelberts, Bregje E. van Sleuwen, and Monique P. L'Hoir, et al. "The excessively crying infant: etiology and treatment." *Pediatr Ann* 43 (2014): e69-e75.
2. Biagioli E, Tarasco V, Lingua C, and Moja L, et al. "Use of complementary and alternative medicine in children with recurrent acute otitis media in Italy: A prospective study." *BMJ Open* 6 (2016): 011765.
3. Chinawa JM, Odetunde OI, Obu HA, and Ndu IK. "Mothers' perception and management of abdominal colic in infants in Enugu, Nigeria." *BMC Pediatr* 12 (2012): 124.
4. Chinawa JM, AC Ubesie, GN Adimora, and HA Obu, et al. "Mothers' perception and management of abdominal colic in infants in Enugu, Nigeria." *Niger J Clin Pract* 16 (2013): 169-173.
5. Garrison, Michelle M, and Dimitri A. Christakis. "A systematic review of treatments for infant colic." *Pediatr* 106 (2000): 184-190.
6. Goyert SL, and Benirschke KY (2018). "Nelson textbook of pediatrics (18th ed.)" Elsevier Saunders.
7. Grimas M, Boureau F, Challamel MP, and Colombet C, et al. "Parental stress and coping strategies in the context of infant colic: A systematic review." *Arch Pediatr Adolesc Med* 172 (2018): 1094-1103.
8. Gupta S, Oshikoya KA, and Senbanjo IO. "Self-medication for infants with colic in Lagos, Nigeria." *BMC Pediatr* 9 (2019): 9.
9. Haddock SS, and Jones DW. "Infantile colic: A review." *Arch Dis Child* 94 (2019): 142-146.
10. Kazeem AO, Senbanjo IO, and Njokanma OF. "Self-medication for infants with colic in Lagos, Nigeria." *BMC Pediatr* 9 (2018): 9.
11. Oshikoya, Kazeem A, Idowu O. Senbanjo, and Olisamedu F. Njokanma. "Self-medication for infants with colic in Lagos, Nigeria." *BMC Pediatr* 9 (2009): 1-8.
12. Lucassen PLBJ, WJJ Assendelft, JW Gubbels, and JThM van Eijk, et al. "Effectiveness of treatments for infantile colic: systematic review." *BMJ* 316 (1998): 1563-1568.
13. Lucassen PLBJ, WJJ Assendelft, JThM Van Eijk, and JW Gubbels, et al. "Systematic review of the occurrence of infantile colic in the community." *Arch Dis Child* 84 (2001): 398-403.
14. Oshikoya KA, OF Njokanma, HA Chukwura, and IO Ojo. "Adverse drug reactions in Nigerian children." *Paediatr Perinat Drug Ther* 8 (2007): 81.
15. Pauli-Pott, Ursula, Bettina Mertesacker, Ulla Bade, and Antje Haverkock, et al. "Parental perceptions and infant temperament development." *Infant Behav Dev* 26 (2003): 27-48.
16. Radesky, Jenny S, Michael Silverstein, Barry Zuckerman, and Dimitri A. Christakis. "Infant self-regulation and early childhood media exposure." *Pediatrics* 133 (2014): e1172-e1178.
17. Rhoads, J Marc, Nicole Y. Fatheree, Johana Norori, and Yuying Liu, et al. "Altered fecal microflora and increased fecal calprotectin in infants with colic." *J Pediatr* 155 (2009): 823-828.

How to cite this article: Awesu TK, Adeogun AO, Bello MO, and Faleke MO, et al. "Digestive Problems, Insensitivity to Lactose Intolerance, as Additive to New Environment as Correlate of Colic among Neonate in IJEBU-Ode Local Government Area, Nigeria." *J Health Edu Res Dev* 13 (2025): 212.