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168

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RESEARCH ARTICLE

Cultural Practices Regarding the Management of Infant Colic by Women in Limpopo Province, South Africa

Aluwani A. Bele[1], Hilda N. Shilubane[1,*], Mygirl P. Lowane[2] and Enneth T. Nkhwashu[2]

[1]*Department of Advanced Nursing Science, University of Venda, Thohoyandou, South Africa*
[2]*Department of Public Health, Sefako Makgato Health Sciences University, Ga-Rankuwa, South Africa*

Abstract:

Background:

Infant colic is a self-limiting condition reported in the past decade. It is a syndrome distinguished by uncontrollable crying in a healthy baby and begins in the early weeks of life and settles around six months. This study aimed to explore the understanding of infant colic and the cultural practices regarding its management by women in a particular village of Limpopo province in South Africa.

Methods:

A qualitative phenomenological, exploratory and descriptive design was used to explore cultural practices regarding the management of infant colic by women at the particular village of Vhembe District, Limpopo province. Participants were selected based on their availability or accessibility for study purpose. Data was collected through unstructured interview, observational notes and field notes from 16 participants. The central question was: "What is your understanding of infant colic, and how do you manage it?" Tesch's eight steps of open-coding was used to analyse data. Ethical clearance to conduct the study was obtained from the University of Venda Research Ethics Committee. The local authorities permitted interaction with the participants in the villages. The trustworthiness of the study was ensured through credibility, dependability, transferability and confirmability.

Results:

The misconceptions about infant colic, use of self-medication, cultural norms, taking the baby to the traditional and religious practitioners emerged during the analysis.

Conclusion:

The traditional approach to managing infant colic not be ignored because their forefathers discovered the formula, and it must be included and respected by citizens in the country.

Keywords: Infant colic, Management, Cultural practice, Women, South Africa, Misconceptions.

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1. BACKGROUND

Infant colic (IC) has been defined by Zeevenhooven *et al.* [1] as 'a commonly reported phenomenon of excessive crying in infancy with an enigmatic and distressing character'. Various literature described IC as a "syndrome characterised by excessive, unexplained paroxysmal crying in an otherwise healthy baby, which typically starts in the first few weeks of life and naturally resolves between 3-5 months" [2, 5].

* Address correspondence to this author at the Department of Advanced Nursing Science, University of Venda, Thohoyandou, South Africa;
E-mail: hilda.shilubane@univen.ac.za

Infant colic can start as early as one week of age and subsides slowly until disappearing at 6 months of age [4, 6]. The cry is described as a high-pitched scream, occurring mainly in the late afternoon or worsening in the evening. However, it can happen at any time of the day [2].

Colicky babies are differentiated from normal babies by their crying and that they cannot be comforted [2]. The symptoms of IC are broad and general, and while not suggestive of disease, may constitute an underlying condition in some infants requiring medical attention [5]. Zeevenhooven *et al.* [1] mention that despite its characteristics, there is little consensus on the definition and the treatment of IC.

On the other hand, Pham *et al.* [6] and Gelfand [2] found no consensus concerning IC aetiology despite many years of research. Therefore, its cause remains unknown [7]. Gutiérrez-Castrellón *et al.* [4] mentioned that the exact cause of IC remains elusive. However, various theories suggest over-production of intestinal gas, allergies to cow's milk protein and poor bonding between mother and baby. Also, Ismail and Nallasamy [8] suggested that cultural caregiver practices such as the upright positioning of infants and frequent feeding might influence colicky crying.

Mutlu *et al.* [9] suggested that failure to manage colic successfully may create significant problems for parents such as helplessness, maternal depression and variable mother-baby bonding. Consequently, parents try various methods and solutions to manage IC. There are proposed methods for its management, including the use of natural remedies such as probiotics, drug therapy and non-drug therapy [10, 5]. Cultural practices are followed by some caregivers in postnatal baby care. Baş *et al.* [11] state that cultural methods are considered desirable or undesirable behaviours that are shared by community members and are conveyed to the future generations by senior members of the family. This infers that society still uses cultural practices in the management of IC.

Gelfand [2], Halpern and Coelho [3], Daelemans *et al.* [12], Di Gaspero *et al.* [13] affirm that there are cultural differences concerning caring styles and how these relate to the extent of IC. Solutions frequently used by parents include giving sugary water or baby herbal teas, music, vibration, massage, spinal manipulation, picking up the baby, rhythmic rocking, swaddling/covering, patting, giving a pacifier and regulating the diet. However, there is no evidence that these methods are effective [10].

The study explores the cultural practices used in the management of IC by women in rural villages aiming to understand how cultural diversity, beliefs and values influence and promote these customs.

2. MATERIALS AND METHODS

2.1. Study Design

A phenomenological, exploratory and description method was used. A qualitative design emphasises the qualities of objects, processes and meanings that cannot be experimentally measured in terms of amount, quantity, frequency or intensity [14, 15]. Research is often conducted in the field setting, allowing direct contact with individuals in their context. Researchers collected data by interviewing participants and observing behaviours [15].

2.2. Setting

The study was conducted in a village in the Vhembe District, which was selected because of the limited health facilities and related challenges that primarily affect children in some villages. Women in the villages may favour cultural care when they cannot access western medicine in infant care.

2.3. Population and Sampling

The study population consisted of women who reside in that village. The study used non-probability, purposive and snowball sampling techniques to select the participants who met the inclusion criteria. A non-probability technique was chosen because is more convenient and economical. Purposive sampling was used to select women who had the knowledge or experience of managing IC syndrome. Whereas the snowballing technique was specifically used to identify families with older women aged 61 years and above. All sixteen participants were invited to participate in the study and none of them refused. Participants were eligible for inclusion if were women and gave birth, 18 years and above, resided in the study area and consented to participate.

2.4. Data Collection

The interviewer, first author and a male nurse, used in-depth unstructured individual face-to-face interviews with the sampled participants. This was to understand the women's insight and practices employed to manage the infants' colic. The interviews were conducted in a safe place using the local language, and each lasted approximately 35-45 minutes and recorded with permission from the participants. Observational and field notes were taken during the interviews. The following key question aimed to improve the understanding of IC and the cultural practices of women in its management: "What is infant colic and how do you manage it?" This question was asked of all participants, followed by probing questions directed by the individual's response. Data were collected until data saturation was reached with the sixteenth participant.

2.5. Data Analysis

The audio interviews were transcribed verbatim and translated into English by a language expert fluent in both languages. The transcripts were back-translated into the local language to ensure accuracy. The English and the local versions of the interviews were read and checked by the authors. Tesch's eight steps of open coding were used for data analysis. The technique included acquiring a general understanding, selecting the most interesting transcribed interview document, making a list of topics and clustering similar topics together. Also, codes were used to identify the topics, find the most descriptive wording, and assemble data finishing with one theme and five subthemes as described in Table **1** below.

Table 1. Cultural practices themes.

Main Theme	Subthemes
Misconceptions and cultural practices regarding the management of IC	Misconceptions about IC
	Use of alternative self-prescribed therapy
	Cultural norms
	Taking the baby to the traditional practitioners
	Taking the baby to spiritual healers

The researchers started by carefully reading all transcripts and making notes from the discussions to gather meaning from the information. After scrutinising the transcripts, the researchers arranged similar topics into groups labelled as

major topics, unique topics and leftovers. One theme guided by the central question was the misconceptions and cultural practices regarding the management of IC and formed the basis of subthemes. The interviewer did a member check with all the participants before the literature control was performed to compare and contrast the findings of the current study.

2.6. Ethical Considerations

Ethical standards were ensured by obtaining the ethical clearance (Ref: SHS/16/PDC/15/2209), from the University of Venda Research Ethics Committee. Permission to conduct the study was sought from the head of the village. The participants were informed about the study and their rights as participants before giving their consent to participate. They were also assured that any information they shared would not be made readily available to anyone else as raw data and that their identities would be protected when writing the report and articles.

3. RESULTS

3.1. Description of Study Sample

Sixteen participants (11 mothers and 5 grandmothers) participated in the study. Their ages range from 19 and 81 years. At the time of the interviews, two women had matric but could not study further due to financial constraints, and one indicated that there was no one to look after her baby.

3.2. Theme and Subthemes

During the face-to-face interviews, various responses regarding how women understand/perceive and manage IC were revealed. One central theme and five subthemes emerged from the data of this study (Table **1**).

Subtheme 1. Misconceptions about Infant colic

The participants were asked about their understanding of IC and its management. The majority perceived it to be a normal stage experienced by every infant. However, some regarded it as an ancestral calling.

One participant (aged 48 years) indicated that *"the cry is associated with the ancestral rituals because the infant wanted to be named after a relative who died some years back".*

When asked whether she knew this relative, the mother did not know the dead person and indicated that her mother-in-law brought the ancestor's issues.

Also, the participant was asked if the infant stopped crying after receiving the name. Hesitantly with a smile, the participant said *"yes! It is true sometimes--- au not so sure".*

The majority of adult participants indicated that infant colic in their tradition is called *stomach snake.* One elderly participant (aged 61 years) attested to what others stated about IC. She said *"every newborn is born with the "stomach snake" and that is the reason for the baby's cry because the snake wants to be fed regularly".*

One participant (aged 46 years) said *"a baby is born hungry, its stomach is empty and this contributes to colic if not given soft porridge immediately. The infant would cry, shaking head sideways and the 'snake' in the intestines (referring to colic) became crimpy".*

Subtheme 2. Use of Alternative Self-prescribed Therapy

When asked how they manage IC, some participants indicated that they would buy medicines at the chemist to treat their infants' colic.

Participant (aged 19 years) said *"when the infant cries excessively, I give him medicine my mother bought at the chemist".*

When asked the type of medication they were referring to, she mentioned gripe water, telament, and muthi we nyoni. The participants further explained how they would seek self-prescribed medicine and quite often not provided by elders at home.

A 22-year-old participant said *"my aunt bought telament to give the infant when she cries, but it does not help".*

Subtheme 3: Cultural Norms

The finding of this study revealed that there are participants identified who performs cultural norms to treat IC.

An elderly participant (aged 63 years) said,

"I won't forget the common practice because we must transfer the knowledge to the postpartum women in the village. My firstborn baby suffered from "stomach snake" implying infant colic. I woke up early in the morning (dawn), and l went to the nearest mountain with my mother-in-law to dig or fetch TSHIRUNGULA (herbal medicine) and chewed it and gave (orally) it to him."

She added by explaining that *"in the evening, l washed him with another herbal medicine called SWANZO (a thorny tree) to help the baby gain weight and on the following day the baby has recovered from infant colic".*

The majority of participants confirmed they also used 'Tshirungula' and that there was no need for a traditional practitioner to prescribe its use.

An elderly participant (aged 78 years) shared her experience and said,

"After l realised that my grandbaby was suffering from "stomach snake", I cooked TSHIUNZA (traditional soft porridge) and gave her a full-filled dish of TSHIUNZA to prevent and manage any occurrence of running stomach".

Another elderly participant said *"in order to keep the infant healthy and enhance the eradication of abdominal pain, I apply PORK OIL on abdomen of the baby".*

All the participants were aware of the use of boiled maize or corn. However, only a few participants were able to explain the cultural practices of using boiled maize to manage IC.

An elderly participant (aged 70 years) said,

"I still remember when my neighbour's baby was crying non-stop at mid-night hour due to "stomach snake" which was believed to be connected to the darkness of the night (evil

spirits). My friend (neighbour) boiled maize in a huge African pot and invited all postpartum women (including myself) whose children were under six months and all those who had not reached puberty to perform the ritual. These girls carried the babies one by one in the dark to the pot that has been placed outside the yard. They sang a traditional song called 'Muvhi o vhonala' (we saw the evil one). After the dance, they ate the whole boiled maize and all of a sudden, they have managed to challenge the spirit that caused the baby to cry to leave him immediately. The baby regained his health and was immediately relieved from infant colic speedily so as he completely stopped crying".

Another elderly participant (81 years) explained the procedure differently and said *"yes, the young children will sing a song called 'Rihojahoja' in Xitsonga language going in circle and hitting the infant's abdomen with cooked corns. The remaining corns would be eaten by the baby dancers and the elderlies only".* The elderly participants indicated that sexually active persons were considered "impure and hot", and therefore, were not supposed to participate in the ritual.

Subtheme 4: Taking the Baby to the Traditional Practitioners

During the interview, participants mentioned that in severe cases of IC, the family consults the traditional practitioner. Seven out of 16 participants reported that their families consulted a traditional practitioner for a cure. Traditional practitioners were regarded as most important by all the participants, who said they would continue using their cultural practice to save infants in the village. Participants believed that ancestors would turn their heads against them and curse them if they did not do so.

The participants reported that the herbal medication (not known) from the traditional healer was mixed with soft porridge to feed the baby. Participants were asked about how old the infants were when they received the treatment. The findings revealed that the infants were one week and older, and treatment was given until the symptoms disappeared.

Participant (aged 29 years) said,

> I had a baby who was suffering from infant colic for a quite long. I tried all interventions, including self-prescribed medication, massaging the abdomen, adequate rest unto the baby and even well-known boiled maize; it didn't work for my baby. My husband and I visited this other well-known traditional practitioner who really helped the baby to attain life out of a hopeless situation. The traditional health practitioner prepared a "muti" (herbal medicine) in a secret place, and he gave us instruction on how the medicine should be used.

One participant (aged 56 years) reiterated this instruction *"you should apply it on the fontanel and the abdomen of the baby at the midnight hour probably around 12 am to protect the baby from any evil attacks".*

The participant looked confident and reliable when describing how her baby was cured. She stated,

> He also gave me a reddish herbal medicine to control bowel movement, enhance weight gain and prevent any chances of diarrhoea. He also gave a vital instruction to the father that he must abstain from sexual intercourse with any other woman out there because it predisposes infant colic. The baby was then relieved from infant colic just after visiting the practitioner.

Participants who consulted the traditional practitioner mentioned that the traditional practitioner threw the ancestral bones and took their history to diagnose IC and its possible cause.

One participant (aged 58 years), who was a well-known registered traditional practitioner explained how herbal medicine is prepared. She said,

"I mix water from "tree 1" (a herbal tree with lots of water despite the season) with "tree 2 stem" (a dry herbal tree found in the desert) and pour the mixture unto the jag, thereafter, filter it using kitchen cloth. Just after 15 to 20 minutes of preparations I would mix "tree 3" leaves (a herbal tree that looks like a pine tree) with "tree 4" roots (a wild herbal tree) and hand the mixture to the client who came for consultation. The mixture is called TSHIUNZA (a mixture of herbal medicines with maize) .

One participant (aged 38 years) mentioned *"I have missed instruction from traditional practitioners on how the medication is supposed to be taken and how often, it has resulted to intoxication and cause harm to my baby".*

Subtheme 5: Taking the Baby to Spiritual Healers

The use of spiritual healers to manage IC was identified in this study. However, few participants had subjected their infants to spiritual healings. The elderly and youngest participants did not support taking an infant to spiritual healers because they prefer traditional practitioners to spiritual healers. They indicated that infants connect with their ancestors for protection, and ancestors would reveal a problem and recommend traditional healing. Those who took their infants to spiritual healers said,

One participant (aged 24 years) said *"at church, they used an enema to relieve the baby from colic and it was done only twice at different intervals and the baby was cured".*

Another participant (aged 31 years) said *"my baby was baptised into holy water and dedicated her unto the lord, and the colic was gone, we were given anointing water to give her".*

Another participant (aged 33 years) said *"I consulted the prophet of Almighty God church. He prophesied my problem in the realm of the spirit and also declared that my baby was suffering from infant colic. After a long prayer, I was told that my baby was healed".*

4. DISCUSSION

We explored the cultural practices used in the management of IC in a rural village. The study found that the participants had firm beliefs that cultural practices are the solutions for IC. Baş *et al.* [11] stated that culture is desirable or undesirable acts shared by members of the community. Most of those who had used traditional practices and gained from it, perceived the practices as acceptable behaviours. This belief was influenced by beliefs and values held by the society about the use of tradition to treat IC.

The participants understand IC as "stomach snake" which required herbal or traditional medication to destroy it and some associated it with supernatural powers and needed traditional rituals. As a result, they boiled maize in a huge pot to be eaten by everyone who participated in the "chizausiku". The current findings are in line with Shoko [16], who demonstrated that traditional medicine has proved to be strong and cannot be discounted in Zimbabwe. The author further stated that in spite of its criticisms in some sectors, it is still trusted by the people [16].

Other participants in the current study mentioned that their traditional health practitioners gave them herbal or traditional medicine to treat their infants. These practices were also noted in the literature that indicated that the homeopathic remedies, such as herbal teas (chamomile, vervain, liquorice and balm mint) were effective in the treatment of colic as they have antispasmodic action [17, 18, 13]. In contrast, Lam *et al.* [19] discouraged the use of herbal remedies as there is no evidence that they are effective in relieving IC. Furthermore, they indicated that their aftereffect might meddle with infant feeding.

Other common practices to relieve crying and IC perceived as effective include massaging the infant's abdomen; lying the infant in a prone position; holding the infant tight on mother's chest or back, shushing, swinging and singing [20]. In contrast, Halpern and Coelho [3] indicate that 'placing the infant in the prone position in the crib should be discouraged, even if it improves the crying spells'.

The study by Aparici-Gonzalo *et al.* [21] found that exclusively breastfed infants had significantly fewer colic attacks due to melatonin compared to babies on formula feeding. The current study did not explore how the women feed their infants during IC. However, the conclusion from their responses was that they do not practice exclusive breast-feeding, as some already indicated that they give their babies self-prescribed medication such as gripe water or telament. However, other participants indicated that they mixed traditional medication with soft porridge. These study findings reflect that the use of self-prescribed medication in managing IC similar to Goldman and Beaumont's [22] study, which found that Simethicone oral suspension, though unproven, was used for the relief of IC with some success.

Some participants indicated that, generally, they applied the traditional medicine on the infant's stomach rather than giving an oral therapy. Gelfand [2] highlighted this practice that demonstrated that infants with IC were usually managed at home without self-medication, but, by applying oils on the abdomen. Furthermore, behavioural interventions such as turning down loud music, dimming the lights at night, avoiding perfumes and gently rocking the baby were perceived to decrease colic [2, 18].

The study reveals that there are churches that do not rely on or trust prayers alone. Consequently, they offer sacrifices, perform rituals, and apply anointing oil or water depending on the level of faith and denominational position related to expectations of what will happen (faith). A study conducted in a Western cape on the effects of rooibos, *aspalathus linearis* indicated that rooibos was found to be effective in treating IC; and the low tannin content and the absence of alkaloids makes it harmless [23]. Hoosen [23] and Mabuza *et al.* [24] agree that rooibos was used to alleviate allergies and IC due to its potential anti-oxidative and chemopreventive actions.

All the practices have an effect on the colicky infant. The herbal treatments have proven to be effective in the management of IC but have yet to be studied to determine their effectiveness and aftereffects in infants [25]. It should be noted that the move from traditional practices to western care of managing IC may be slower in villages where access to health services, financial resources and low socioeconomic standards could be limiting factors. The basis for care is the barring of natural causes, parental support, proposing methods to manage infants feeding and sleeping problems [10].

5. LIMITATIONS

The study sample was limited to one village, and the findings cannot be considered to represent the broader section of the women in the Limpopo province.

6. RECOMMENDATIONS

Women whose infants experience IC should receive individual counselling and education interventions when they present their infants at health care services. Health care workers in primary health care settings have an essential responsibility in educating individuals and families about IC. Such information should include predisposing factors, clinical picture as well as management. Excessive infant crying may cause parental stress which is a risk factor for baby abuse. Therefore, it is recommended that parents be encouraged to use soothing techniques such as swaddling, shushing, stomach position and swinging since they cost nothing and have no side-effects, although there is no research concerning their effects on the crying infants.

Study findings confirmed that indigenous knowledge about the cultural practices to manage IC in rural areas was beneficial. It would make sense that the uses of non-pharmacologic colic treatment strategies are generally preferable. Therefore, women who managed their infant positively could share their experience with other women who experience distress due to IC.

CONCLUSION

The cultural practice regarding the management of IC postpartum is most effective compared to western medicine in the rural context. Infant colic is a challenge to postpartum

women, and they need appropriate support in many ways, including parenting and coping with the condition of the baby. Parental stress leading to exhaustion could lead a parent to use unsafe actions in striving to soothe the infant. It is, therefore, imperative for women and families to know the causes and manifestations of IC.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Ethical clearance was obtained from the Ethics Research Committee of University of Venda,South Africa (Project no. SHS/16/PDC/15/2209).

HUMAN AND ANIMAL RIGHTS

No animals were used in this research. All human research procedures followed were per the ethical standards of the committee responsible for human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2013.

CONSENT FOR PUBLICATION

Informed consent was obtained from all participants in the research.

AVAILABILITY OF DATA AND MATERIALS

The data that supports the findings of this study are available within the article.

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CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

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REFERENCES

[1] Zeevenhooven J, Browne PD, L'Hoir MP, de Weerth C, Benninga MA. Infant colic: mechanisms and management. Nat Rev Gastroenterol Hepatol 2018; 15(8): 479-96. [http://dx.doi.org/10.1038/s41575-018-0008-7] [PMID: 29760502]

[2] Gelfand AA. Infant colic seminars in pediatric neurology. San Francisco: University of California 2016.

[3] Halpern R, Coelho R. Excessive crying in infants. J Pediatr (Rio J) 2016; 92(3)(Suppl. 1): S40-5. [http://dx.doi.org/10.1016/j.jped.2016.01.004] [PMID: 26994450]

[4] Gutiérrez-Castrellón P, Indrio F, Bolio-Galvis A, *et al.* Efficacy of Lactobacillus reuteri DSM 17938 for infant colic: Systematic review with network meta-analysis. Medicine 2017; (96): (51)e9375..

[5] Ong TG, Gordon M, Banks SS, *et al.* Probiotics to prevent infant colic. Cochrane Database of Systematic Reviews 2019; 3

[6] Pham VT, Lacroix C, Braegger CP, Chassard C. Lactate-utilizing community is associated with gut microbiota dysbiosis in colicky infants. Sci Rep 2017; 7(1): 11176. [http://dx.doi.org/10.1038/s41598-017-11509-1] [PMID: 28894218]

[7] Rohail R. Colic in babies: Causes. Remedies and treatment 2020.

[8] Ismail J, Nallasamy K. Crying Infant. Indian J Pediatr 2017; 84(10): 777-81. [http://dx.doi.org/10.1007/s12098-017-2424-z] [PMID: 28842813]

[9] Mutlu B, Erkut Z, Şerife AVCI, *et al.* The practices used by mothers to infant colic and their perceptions on the benefits of the practices. Saglik Bilim Derg 2020; 5(1): 8-16. [http://dx.doi.org/10.26453/otjhs.583087]

[10] Sung V. Infantile colic. Aust Prescr 2018; 41(4): 105-10. [http://dx.doi.org/10.18773/austprescr.2018.033] [PMID: 30116077]

[11] Baş NG, Karatay G, Arıkan D, Baş K. Intergenerational transmission of traditional practices at newborn care: An explorative study NEWBORN CARE. Indian J Tradit Knowl 2019; 18(1): 114-21.

[12] Daelemans S, Peeters L, Hauser B, Vandenplas Y. Recent advances in understanding and managing infantile colic. F1000 Res 2018; 7: 7. [http://dx.doi.org/10.12688/f1000research.14940.1] [PMID: 30271572]

[13] Di Gaspero NC, Razlog R, Patel R, Pellow J. Perceived effectiveness of complementary medicine by mothers of infants with colic in Gauteng. Health SA 2019; 24(0): 1175. [http://dx.doi.org/10.4102/hsag.v24i0.1175] [PMID: 31934429]

[14] Polit DF, Beck CT. Nursing Research: Generating and assessing evidence for nursing practice. 10th ed. Philadelphia: Wolters Kluwer Health Lippincott Williams and Wilkins 2017.

[15] Creswell JW, Creswell JD. Research Design: Qualitative, Quantitative and Mixed Methods Approaches. 5th ed. Los Angeles: Sage 2018.

[16] Shoko T. Traditional herbal medicine and healing in Zimbabwe. Journal of Traditional Medicine & Clinical Naturopathy 2018; 7(1): 1-3. [http://dx.doi.org/10.4172/2573-4555.1000254]

[17] Van Wyk BE, Gorelik B. The history and ethnobotany of Cape herbal teas. S Afr J Bot 2017; 110: 18-38. [http://dx.doi.org/10.1016/j.sajb.2016.11.011]

[18] Hyams JS. Intestinal gas in children. Curr Opin Pediatr 1996; 8(5): 467-70. [http://dx.doi.org/10.1097/00008480-199610000-00008] [PMID: 8946126]

[19] Lam TML, Chan PC, Goh LH. Approach to infantile colic in primary care. Singapore Med J 2019; 60(1): 12-6. [http://dx.doi.org/10.11622/smedj.2019004] [PMID: 30840991]

[20] Daelemans S, Peeters L, Hauser B, Vandenplas Y. Recent advances in understanding and managing infant colic [version1; referees:2 approved], F1000Research, 7(F1000 faculty Rev) 2018; 1426.

[21] Aparici-Gonzalo S, Carrasco-García Á, Gombert M, Carrasco-Luna J, Pin-Arboledas G, Codoñer-Franch P. Melatonin Content of Human Milk: The Effect of Mode of Delivery. Breastfeed Med 2020; 15(9): 589-94. [http://dx.doi.org/10.1089/bfm.2020.0157] [PMID: 32721174]

[22] Goldman M, Beaumont T. A real world evaluation of a treatment for infant colic based on the experience and perceptions of 4004 parents. Br J Nurs 2017; 26(5)(Suppl. 1): S3-S10. [http://dx.doi.org/10.12968/bjon.2017.26.Sup5.S3] [PMID: 28350192]

[23] Hoosen M. The effect of Aspalathus linearis (Rooibos Tea) on Nitric Oxide (NO) and Cytokine Activity. Intl J Hum Health Sci 2019; 3(3): 152..

[24] Mabuza N, Kinfe HH, Godeto TW, Ambushe AA. Estimated contributions of rooibos tea to the daily manganese and zinc intakes determined in tea leaves and tea infusions by inductively coupled plasma-mass spectrometry. Biol Trace Elem Res 2020. [http://dx.doi.org/10.1007/s12011-020-02211-x] [PMID: 32557112]

[25] Odetola TD, Abiona M. Local practices of infant colic management and health outcome in children: A scoping Review. Afr J Nurs Midwifery 2017; 19(3): 10. [http://dx.doi.org/10.25159/2520-5293/2165]