Diaper dermatitis in new-borns: Knowledge-level and practices of nursing mothers in its preventive management in the azire health area in north-west cameroon.

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Abstract

Diaper dermatitis is one of the most common skin conditions that infants suffer from, and their caregivers manage in the first months post-birth. As such, questions of effective prevention and treatment of the condition often arise. Non-medical skincare practices that support healthy skin barrier function can prevent diaper dermatitis manifestation or alleviate the condition in many cases. The usage of barrier emollients and improved diaper technology contributes to keeping moisture and irritants away from an infant's delicate skin. Frequent diaper changes, gentle cleansing, use of appropriate diaper products, protective ointments, and parent education are evidence-based preventive measures to reduce the incidence and severity of diaper dermatitis in infants. Early implementation of these strategies is key to maintaining skin integrity in the diaper area. Further research on innovative diaper materials and topical agents is warranted.

Keywords: Diaper dermatitis; Infant skin care; Neonatal; Skin barrier; Skin pH, Diapers, Newborn.

Introduction

Diaper dermatitis, also known as diaper rash, is a common skin irritation that affects infants and children who wear diapers. It is characterized by erythema and inflammation of the skin in the diaper area. Diaper dermatitis has a reported prevalence of 7-35% among infants. If not properly managed, it can progress to become a severe dermatitis resulting in pain, increased susceptibility to infection, and impaired quality of life for the infant and family [1].

It is a non-specific term used to describe inflammatory reactions of the skin within the diaper area. The word “diaper” is included in the name not because the diaper primarily causes the dermatitis, but rather because the dermatitis is associated with a combination of factors within the diapering area, including prolonged overhydration, friction, and the presence of irritants in urine and feces [2]. Knowledge of the complex etiology of DD is key to effective prevention and management.

Diaper dermatitis is one of the most common skin conditions in neonates and infants and can cause discomfort and stress for both infants and their caregivers [3]. The reported incidence and prevalence of diaper dermatitis in current literature and throughout the world varies greatly [4]. Approximately 50% to 65% of babies will suffer from diaper rash at some time [5]. Diaper dermatitis prevalence allegedly reaches its peak at around nine to twelve months of age (Jordan WE, 2004). Diaper dermatitis can range in severity: out of a given pool of patients with diaper dermatitis, reportedly 58% have a slight rash, 34% a moderate rash and 8% a severe rash [6]. Seven percent of parents whose babies have diaper rash visit a primary care physician.

The development of diaper dermatitis is multifactorial. Newborn skin exhibits a cutaneous immaturity and an increased susceptibility toward skin barrier disruption or percutaneous absorption [7]. Furthermore, differences in skin barrier function and development are observed between anatomical regions [8]. The skin in the diaper area is predisposed to irritation by the prolonged contact with irritants, such as urine and feces, as well as by diaper occlusion, which leads to an increase in hydration and skin pH [9]. Overhydration promotes degradation of the “brick and mortar” structure of the stratum corneum, contributing to impaired barrier function [10]. The acid mantle of the skin plays an important role in the regulation of enzymes responsible for stratum corneum integrity [11].

Prolonged exposure to urine and feces leads to a more alkaline diapered skin pH, resulting in changes in microbial colonization, activation of fecal protease and lipase enzymes, and stratum corneum impairment [12]. Additionally, friction against the skin and maceration can lead to a breakdown of the skin barrier and increased permeability to potential irritant substances. These factors predispose the skin to microbial invasion and inflammation. Particularly Candida albicans and bacteria, such as Staphylococcus aureus, (β-hemolytic)

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Streptococcus sp., E. coli, and Bacteroides sp. are commonly associated with diaper dermatitis [13].

Key risk factors for the development of diaper dermatitis include prolonged contact with urine and stool, use of inappropriate diaper products, inappropriate cleansing techniques, and greater frequency of stools. The skin pH, moisture, friction, and irritants found in urine and stool interact to breakdown the skin barrier in the diaper area. Prematurity and antibiotic use also increased risk.

Frequent diaper changes and proper diapering techniques are important preventive measures. Gently cleansing the area with mild, non-irritating cleansers and thoroughly drying is recommended. Appropriate diaper products that maintain ideal skin pH, absorb moisture, and minimize friction should be used. Protective ointments containing zinc oxide or petroleum jelly can be applied at diaper changes. Keeping the diaper area open to air, when possible, allows the skin opportunity to dry. Educating parents on early signs of dermatitis and proper management is also essential [14].

A variety of factors may facilitate or exacerbate the rash. These include the frequency of urination and defecation, hygiene practices and skin cleansing routines, products applied to the skin, type of diaper used, and frequency of diaper changes, diet, medications, and gastrointestinal illnesses.

Fecal protease and lipase enzymes in stool and urine can cause skin damage beneath diapers. Diaper dermatitis is responsible for about 20% of dermatologic consultations in childhood.

Mainly, diapers are used to manage soiling, and for convenience. Infrequent changing of diapers and improper cleaning of the diaper area can result in remains of stool and urine in the diaper area over extended periods, leading to irritation.

In Thailand, research carried out on diaper dermatitis found the cause to be moisture, heat or various enzyme reactions from feces and urine, and reported a high prevalence of the disease in children 0 to 24 months, with its peak within 9 to 12 months of age [15].

Irritant contact is the most common cause of diaper rash, ranging from mild cases with localized erythema and minimal scaling, through moderate cases with increased erythema and papules at the affected area, to severe cases where the skin breaks [16].

According to, frequent diaper change helps reduce the amount of time the skin is in contact with moisture and irritants including fecal enzymes. Therefore, the frequency of diaper change is proposed to be at least 2 to 3 times daily or as soon as the diaper is wet. Also, changing a baby's diaper at least once per night helps prevent diaper rash from occurring, and promotes healing in case a baby already presents with diaper rash.

The calculated risk of developing diaper rash in childhood worldwide is one in four infants. The estimated prevalence of diaper rash ranges from seven to over 40%

According to, the estimated overall prevalence of diaper dermatitis was found to range from seven to 43.8%, and varies according to setting, hygiene practices, and age group. Children under 24months have the highest prevalence, with peak being between 9 and 12 months of age.

According to a study in Ghana by Collins, only 23.5% of respondents had good knowledge on diaper dermatitis, with 76.5% reporting poor knowledge [17].

Diaper rash is a serious problem in Cameroon. According to a study by, few mothers clean the diaper area of their children after they passed out urine, not knowing that urine and stool contribute to the occurrence of diaper dermatitis [18]. This contributes to increase the prevalence of diaper dermatitis in Cameroon which was found to be close to 20%.

Objectives

General objective

To describe the knowledge and practical measures of mothers in the preventive management of diaper dermatitis in the Azire Health Area.

Specific objectives

1. To assess the knowledge-level of nursing mothers in Azire Health Area on the origin of diaper dermatitis.
2. To identify the practical measures employed by nursing mothers in in the preventive management of diaper dermatitis.
3. To identify the challenges encountered by nursing mothers in in the preventive management of diaper dermatitis.
4. What plausible solutions are envisaged from Care-providers to merge the gaps in the challenges encountered? [19].

Methodology

Study population

The study population comprised of mothers with children aged 0 to 12 months living in the Azire health area attending Infant Welfare Clinic in the Integrated Health Center in the health area.

Study design

The study used a descriptive cross-sectional design in which primary data was collected from a sample of women selected randomly at a given point in time to be a representative of mothers living in the Azire Health Area, on their knowledge-level, practices of diaper dermatitis preventive management as well as the constraints encountered. The findings were analyzed as per the study objectives [20].

Sample size calculation

The sample size was calculated using Lozen's formula.

$$n_0 = \frac{Z^2(p)(q)}{e^2}$$

Where;

Z= Value for the selected alpha level (1.96 for a 95% confidence level)

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P= The percentage picking a choice expressed as decimal. Response distribution to 50% (0.5) is the most conservative assumption

q= 1-p

e= Confidence interval (margin of error), expressed as decimal (0.05)

The Sample size was 80 respondents.

Sampling Techniques and Procedure

Sampling techniques

The systematic sampling method was used in which the research team assigned integer value numbers to the women with new-borns and infants during Infant Welfare Clinics and a fixed integer value multiples were selected each day and consecutively till the sample size was attained [21].

Data management

After collection, similar responses were grouped using frequency tables, expressed in percentages, and then presented in tables and charts.

Results

Socio-Demographic Data

Age-range distribution of respondents: From the figure, out of the 80 respondents, 5% were aged 16-20 years, 35% were between 21-25 years , 30% were between 26-30 years, while 30% were aged 31 years and above (Figure 1).

Marital status of respondents: 25% of the 80 respondents were single, 60% were married, 5% were divorced, while 10% were widows (Figure 2).

Level of education of respondents: The chart shows that 5% of the respondents attained the primary level of education, 15% attained the secondary, 20% attained high school, while 60% attained the university (Figure 3).

Occupation of respondents: Out of the 80 participants, 30% were students, 30% were businesspersons, 15% were teachers, 10% were farmers, 5% were nurses, and 10% were housewives (Figure 4).

Number of Children Owned by Respondents: 80% of the respondents had 1-3 children, while 20% had 4 children and above (Figure 5) [22].

Respondents' Knowledge on Diaper Dermatitis Occurrence

Definition of diaper dermatitis

Out of the 80 participants, 60% said diaper dermatitis is a skin irritation on babies due do overstay in soiled diapers, 30% said diaper dermatitis are just dermatitis on a baby's buttocks, while 10% said they are dermatitis on a baby's buttocks from poor hygiene [Table 1].

Knowledge on causes of diaper dermatitis

The 80 respondents suggested 104 responses to what could cause diaper dermatitis, and these responses can be grouped as in the table above. Out of the 104 responses, 57% said diaper dermatitis was as a result of the baby wearing a diaper for too long, 27% said diaper dermatitis is due to allergy to certain chemicals in lotions or diapers, 4% said diaper dermatitis comes about when a barrier cream such as Vaseline is not is not applied on diaper area before placing diaper, while 12% said diaper dermatitis occurs due to poor hygiene practices of the mother during diaper change [Table 2] [23-26].

Knowledge on signs of diaper dermatitis

The 80 respondents suggested 188 responses on the signs of diaper dermatitis which were grouped as in the table above. Out of the 188 responses, 38% suggested redness as a sign of diaper dermatitis, 26% suggested dermatitis, 13% suggested itches, while 23% mentioned other signs of diaper dermatitis being peeling of skin at diaper area, increased crying when soiled, agitation and restlessness of the baby [Table 3].

Knowledge on complications of diaper dermatitis

As complications of diaper dermatitis, out of the 80 respondents, 25% mentioned abscesses, 45% mentioned ulcers, 10% mentioned weight loss, while 20% had no idea what diaper dermatitis could lead to [Table 4] [27-29].

Attitude and Practices Towards Prevention and Management of Diaper Dermatitis

Measures practiced towards prevention of diaper dermatitis

All 80 respondents suggested 160 responses regarding measures they use to prevent diaper dermatitis. The responses could be grouped as above to show 45% practicing frequent diaper change, 25% use barrier creams such as petroleum jelly; 12.5% practice proper hygiene in diaper change, while 17.5% mentioned other preventive measures such as giving their baby a break from diapers sometimes, changing the baby after over 3hours of being in one diaper, even if it is not soiled [Table 5] [30].

Respondents frequency of diaper change

Out of the 80 respondents, 70% change their baby every time they soil a diaper, 20% change their baby 4 to 5 times a day, while 10% change their baby 2 to 3 times a day [Table 6].

Respondents practices in diaper change

From the table above, 5% of the respondents bathe the baby completely, 60% use baby wipes, 15% wash the diaper area with soap and water, 10% clean using the unsoiled part of the diaper in change, while 10% used other measure in diaper change such as, using a wet cloth, or applying kernel oil even after using baby wipes [Table 7] [31].

Respondents reaction to diaper dermatitis

Fifty percent of the respondents ask orientation from other mothers, 40% take their baby for medical consultation, while 10% visit a trade-practitioner when their baby presents with signs of diaper dermatitis [Table 8].

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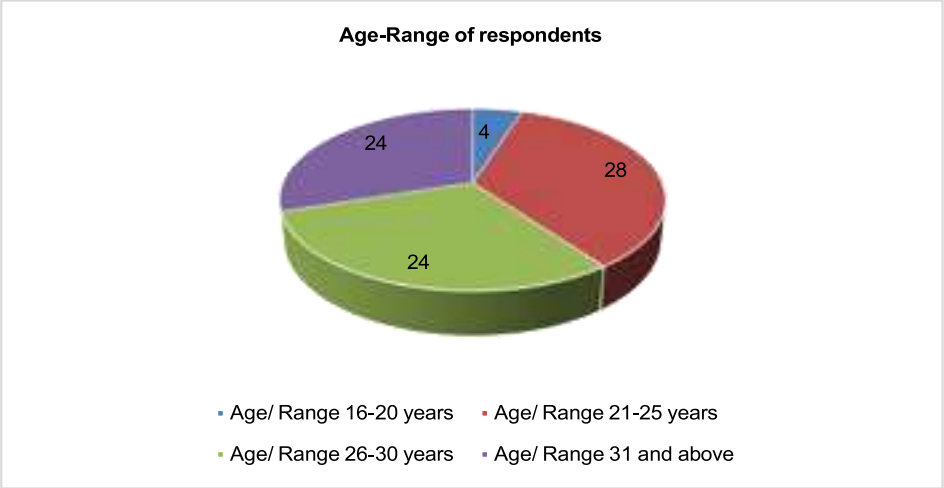

Figure 1. *Distribution of respondents according to Age-range.*

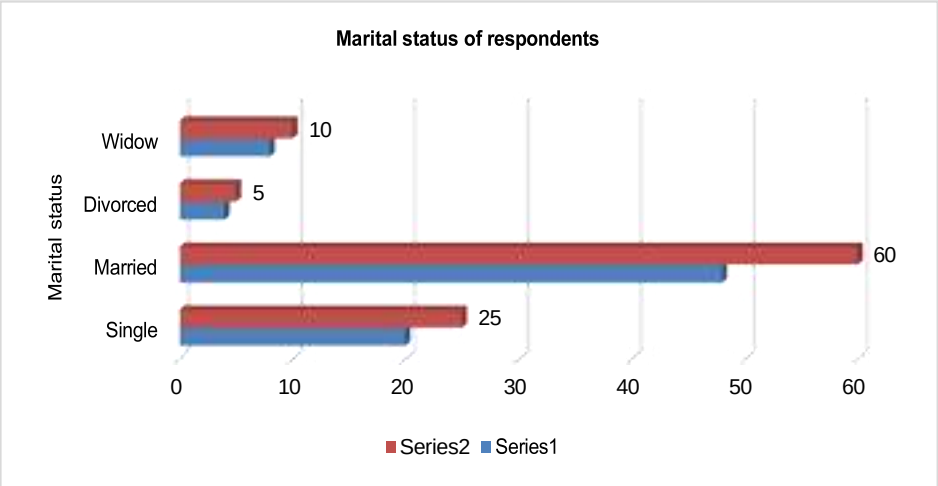

Figure 2. *Respondents Marital status.*

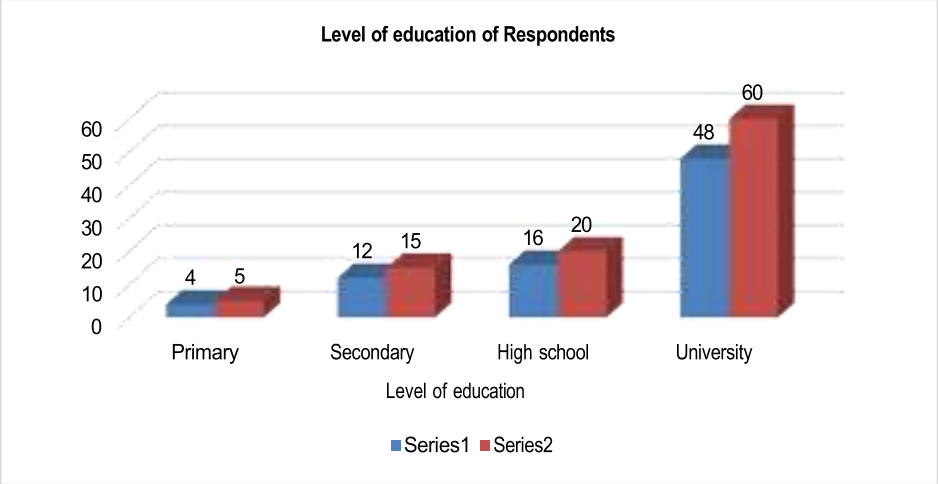

Figure 3. *Respondents level of education.*

Experience and Difficulties Faced with Diaper Dermatitis

Experience with diaper dermatitis

Out of 80 respondents, 30% mentioned their babies getting diaper dermatitis once a month or less, 5% mentioned once a week or more, 60% mentioned once every three months, while 5% mentioned their babies never presenting with diaper dermatitis, or it being rare, occurring only once throughout the baby's first 11 months of age [Table 9] [32].

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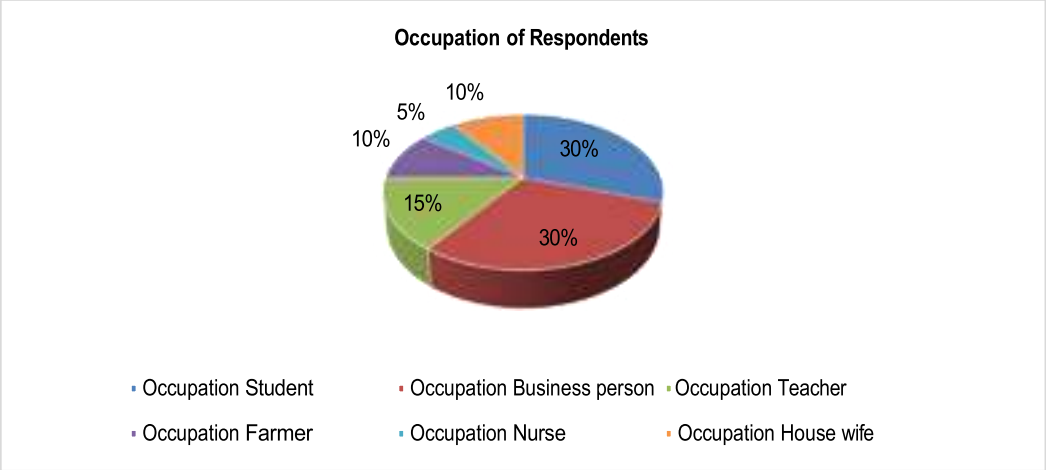

Figure 4. *Distribution of respondents as per Occupation.*

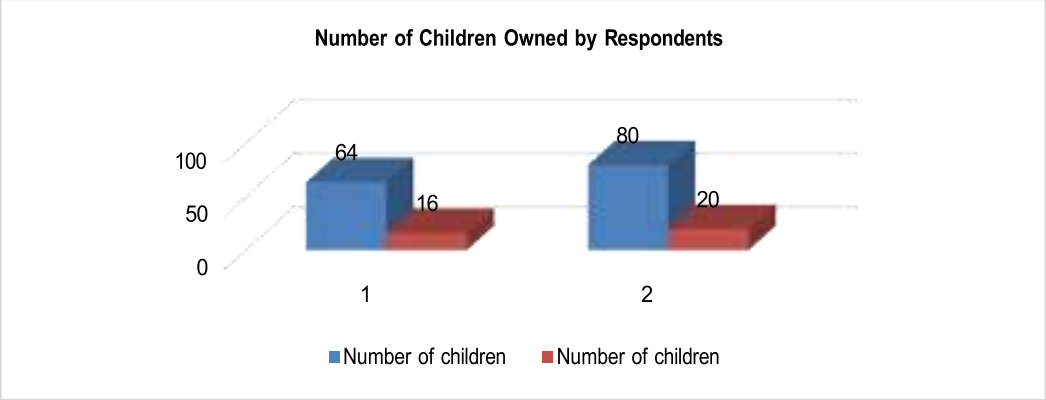

Figure 5. *Number of children owned by respondents.*

Table 1. *Respondents' Definition of Diaper dermatitis.*

Variable	Frequency	Percentage (%)
Skin irritation due to staying in soiled diaper	48	60
Dermatitis from baby's buttocks	24	30
Dermatitis on baby from poor hygiene	8	10
Total	80	100

Table 2: *Respondents' Knowledge on the Causes of diaper dermatitis.*

Variable	Frequency	Percentage (%)
Wearing diaper for too long	60	57
Allergy	28	27
No use of barrier cream	4	4
Poor hygiene in diaper change	12	12
Total	104	100

Table 3. *Signs of diaper dermatitis.*

Variable	Frequency	Percentage (%)
Redness	72	38
Dermatitis	48	26
Itches	24	13
Others	44	23
Total	188	100

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Table 4: *Complications of diaper dermatitis.*

Variable	Frequency	Percentage (%)
Abscess	20	25
Ulcers	36	45
Weight loss	8	10
No idea	16	20
Total	80	100

Table 5: *Preventive Measures against Diaper dermatitis.*

Variable	Frequency	Percentage (%)
Frequent diaper change	72	45
Use of barrier creams	40	25
Proper hygiene	20	12.5
Others	28	17.5
Total	160	100

Table 6: *Frequency of Diaper Change.*

Variable	Frequency	Percentage (%)
2 to 3 times	8	10
4 to 5 times	16	20
Every time the baby soils the diaper	56	70
Total	80	100

Table 7: *Practices in Diaper Change.*

Variable	Frequency	Percentage (%)
Bathing baby completely	4	5
Using baby wipes	48	60
Washing the diaper area	12	15
Wiping using unsoiled part of diaper	8	10
Others	8	10
Total	80	100

Table 8: *Reaction to Diaper dermatitis.*

Variable	Frequency	Percentage (%)
Ask orientation from other mothers	40	50
Medical consultation	32	40
Visit a trade-practitioner	8	10
Total	80	100

Table 9: *Occurrence of Diaper dermatitis in Respondents Babies.*

Variable	Frequency	Percentage (%)
Once a month or less	24	30
Once a week or more	4	5
Once every 3 months	48	60
Others	5	5
Total	80	100

Attempted diaper dermatitis treatment

45% of the respondents used prescribed creams, 25% used over-the-counter creams, 15% used home remedies such as herbs as treatment when their babies presented with diaper dermatitis. However, 15% of the respondents mentioned that they used no evident treatment and thought the diaper dermatitis will go on its own [Table 10].

Observations from attempted remedies

After trying the mentioned remedies, 60% of the respondents mentioned the remedy being very effective, 30% mentioned it being somewhat effective, while 10% mentioned theirs not being effective [Table 11] [33-39].

Challenges faced in managing diaper dermatitis

Out of the 80 respondents, 45% had difficulty keeping their baby's skin clean and dry, 35% find it difficult getting a treatment that works, 20% had difficulty affording treatment (Figure 6).

Envisaged solutions

The solutions proposed by respondents to remedy the challenges they mentioned above can be grouped as in the table above. 69% proposed that health personnel should intensify health talks given to women during ANC and even when giving postnatal care. 31% proposed that free diaper dermatitis consultation campaigns should be made available for nursing mothers (Figure 7) [40-45].

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Table 10: *Remedies attempted.*

Variable	Frequency	Percentage (%)
Prescribed cream or ointment	36	45
Over-the-counter ointment	20	25
Home remedies	12	15
No treatment	12	15
Total	80	100

Table 11: *Eficacy of Treatment Used.*

Variable	Frequency	Percentage (%)
Very effective	56	60
Somewhat effective	16	30
Not effective	8	10
Total	80	100

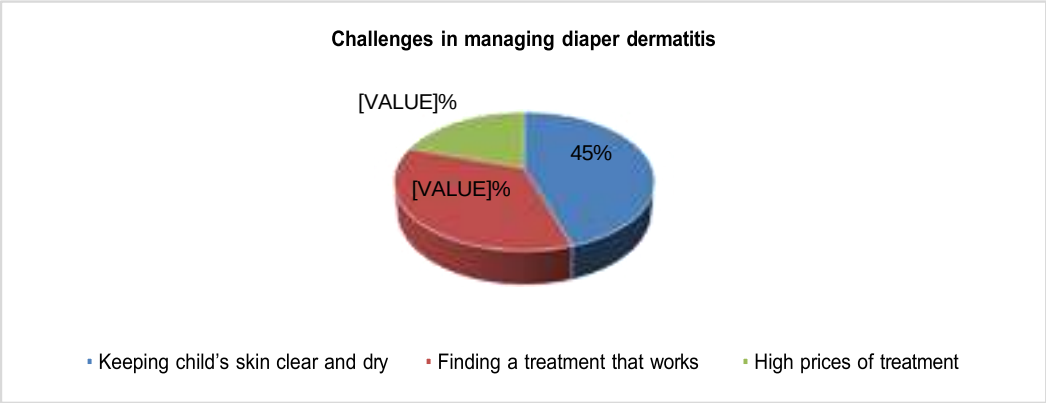

Figure 6. *Challenges faced by respondents in managing diaper dermatitis.*

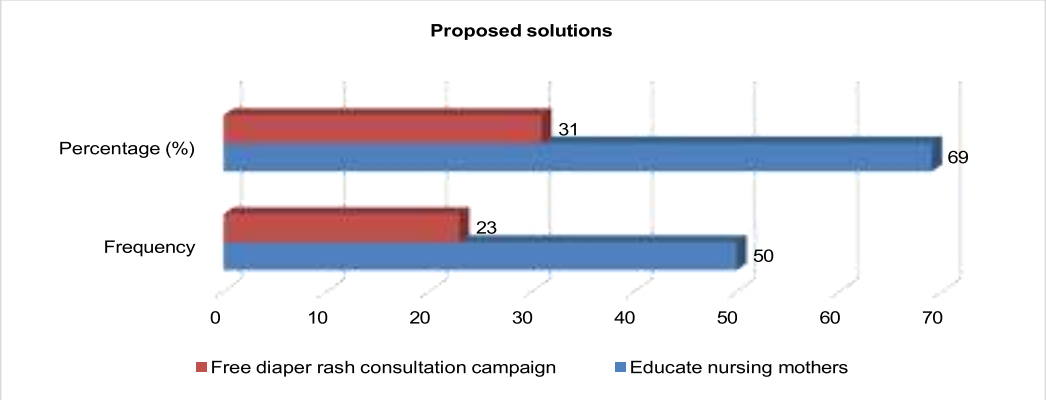

Figure 7. *Solutions proposed by respondents.*

Discussion of findings

Socio demographic data

Looking at the age distribution of respondents, the greatest proportion was the age range 21-25yrs, followed by 26-30yrs, and 31+yrs, while the least is the age range 16-20yrs that involve only 5% of the respondents. This variation could be explained by the general perception that teenagers are rarely mentally and physically fit to be parents, while most women above 20 see themselves to be more mature and ready enough to take care of a little one.

With respect to marital status, the greatest proportion of respondents were married, followed by those that were single, then the widowed, and lastly the divorced who were 5% of the 80 respondents. This can be explained by the mentality borne by most people, which is that it is easier and better to raise a child in a united home, such that spouses partner up to take care of the child, well or sick [46-48].

As concerns level of education, 60% of respondents attained tertiary level, 20% attained high school, 15% attained secondary, while 5% only attained the primary

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level of education. The level of education proves why many respondents were knowledgeable enough on the topic.

The occupation of respondents showed that majority, 30% were business persons, 30% were students, 15% were teachers, 10% were farmers, 10% were housewives, and 5% were nurses. The various occupations could give reason to how frequently mothers will change their baby's diaper since most nursing mothers are caught up in busy professions such as, trading, teaching and others which make it difficult for them to change the baby as frequently as they should, or with as much delicacy [49-52].

Concerning respondents' number of children, most (80%) of the women was found to have 1 to 3 children, while 20% had 4 or more children. Inference of this variation is that mothers with over 3 children are often looked up as models for first time mothers as they must have learned from their experience with more children.

The above findings on socio-demographic data are in line with the results of a similar study carried out in a referral hospital in Northern Ghana with 456 mothers. The majority (76.3%) of the mothers were aged below 30. Also, most (61.8%) of the mothers were engaged in economic activities, and majority of the mothers (88.4%) interviewed had at least one child using diapers [53].

Respondents' knowledge on diaper dermatitis occurrence

Respondents were questioned on four aspects concerning diaper dermatitis occurrence which are, its definition, cause, signs, and complications. Over half of the respondents (60%) defined diaper dermatitis as skin irritation babies get from staying too long in soiled diapers, 10% defined diaper dermatitis as dermatitis that appear on babies' buttocks due to poor hygiene, while 30% defined diaper dermatitis as any dermatitis around the diaper area in babies.

Concerning the causes of diaper dermatitis, respondents provided 104 responses where 60 were about the baby staying too long in soiled diapers, 28 mentioned allergies to chemicals as a cause of diaper dermatitis, 4 reckoned no use of barrier creams will cause diaper dermatitis, while 12 of the responses were about poor hygiene in diaper change being the cause of diaper dermatitis. A similar study in Northern Ghana showed that 87.1% of respondents identified not changing baby's diapers frequently as the chief cause of diaper dermatitis, and only 10.1% of the respondents knew the idea that a sprinkle of talcum powder on a diaper will soak up moisture and help prevent diaper dermatitis was false. It is not recommended to use Talc powders because it does not form a continuous lipid barrier layer over the skin and blocks skin pores, producing an ideal environment for diaper dermatitis to develop [54-56].

Regarding the signs of diaper dermatitis, out of 188 responses, 72 talked about redness at diaper area, 48 about dermatitis, 24 about itches, while 44 were about other indications such as, fever, agitation, and restlessness of the baby when they are wet. The last aspect under the occurrence of diaper dermatitis was its complications. Out of 80 respondents, 20% had no idea what a complication of diaper dermatitis could be, 45% mentioned ulcers, 25% abscess, and 10% mentioned weight loss as a complication of diaper dermatitis.

These findings conclude an appreciable level of knowledge on diaper dermatitis, like a study carried out in Cameroon by where they found that 87% of mothers were aware of diaper dermatitis. However, only about 53% knew how to prevent it. This suggests that health personnel need to augment the efforts they put in to educate mothers on the cause, signs, and complications of diaper dermatitis such that the measures mothers put in to prevent diaper dermatitis mirrors the level of knowledge they possess on the topic [57].

Attitude and practices towards prevention and management of diaper dermatitis

Concerning measures implemented in preventing diaper dermatitis, 160 responses were obtained, 45% of which related to frequent diaper change, 25% to the use of barrier creams before putting diaper on, 12.5% related to proper hygiene practices in diaper change, while 17.5% were about other measures such as replacing diaper with pants for some time and allowing diaper area to air-dry before placing diaper again. A similar study in Cameroon revealed that the most common preventive measures reported by mothers were changing diapers frequently (85%), keeping the diaper area clean and dry (78%), and using a barrier cream (68%). A study in Northern also revealed 58.6% of mothers dried their children using natural air after cleaning them [58].

Regarding frequency of diaper change daily, 70% of respondents mentioned changing the baby's diaper every time it is soiled, 20% mentioned changing four to five times, while 10% two to three times daily. The study found that 52% of mothers changed their babies' diaper at most twice a day, followed by 46% of mothers changing their babies three to four times daily [59].

As concerns practices in diaper change, 60% of respondents reported using baby wipes, 5% bathe their baby, 15% wash the diaper area using soap and water, 10% use the unsoiled part of the diaper in change, while 10% mentioned other practices like using talcum powder, petroleum jelly, or kernel oil after wiping the baby with a cloth [60]. A similar study in the Yaoundé Gynaeco-Obstetric and Pediatric Hospital in Cameroon also revealed that majority of mothers frequently used talcum powder during diaper change, and this was found to be associated to an increased prevalence of diaper dermatitis. A study showed that substances used to prevent diaper dermatitis are baby powder (47%), Vaseline (16%), while 9% do not use any substance.

With respect to the attitude mothers have when their baby presents with diaper dermatitis, 50% of respondents mentioned they seek orientation from other experienced mothers, 40% take their baby for medical consultation, while 10% rather visit a trade practitioner. Such results can be predicted by the fact that old women, especially those having many children are seen as more experienced in the domain. As such, young mothers generally refer to these older mothers for advice when they face any difficulties with taking care of their baby.

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A similar study found that mothers most consulted traditional healers (72%) and nurses (67%) when their babies developed diaper dermatitis. Only 42% of mothers consulted a doctor. Kamdem, C. C. et al, 2018 also found that mothers were more likely to consult a doctor if their baby had severe diaper dermatitis (67%), if the diaper dermatitis did not improve after home treatment (64%), or if the baby had other health problems (59%) [61].

Experience and difficulties faced with diaper dermatitis

Concerning how frequently babies get diaper dermatitis, 30% of respondents mentioned their babies presenting with diaper dermatitis about once a month, 5% reported more than once a month, 60% mentioned once every three months, while 5% reckoned some of their babies either only had diaper dermatitis once or went through babyhood without getting diaper dermatitis at all. A study carried out in Cameroon found that 43% of infants at the Yaounde Gynaeco-Obstetric and Pediatric hospital had diaper dermatitis. This suggests that it is likely that most babies in Cameroon will develop diaper dermatitis at least once [62].

With respect to attempted treatment options, 45% of respondents reported to have used prescribed creams and ointments when their baby developed diaper dermatitis, 25% used over-the-counter creams and ointments, 15% used home remedies such as applying ground herbs to the affected area, while 15% hoped the diaper dermatitis will go on its own. Takougang, F. V. et al. (2016) found that the most common treatment options mothers tried were applying herbs or oils to the skin (42%), given the baby a warm bath (37%), using a barrier cream (68%).

As concerns the effectiveness of attempted treatments, 60% of respondents reported treatment being very effective, 30% reported an average level of effectiveness, while 10% mentioned the treatment option they tried not being effective at all. It should be noted that this majority who reported a positive effect of treatment are mothers who used prescribed creams, followed by mothers who used over-the-counter creams. Mothers who used herbs, together with those who used no treatment mentioned these methods not being effective in treating diaper dermatitis. Interviewed 100 mothers of infants with diaper dermatitis. The mothers were asked to rate the effectiveness of various treatment options on a scale of 1 to 10, with 1 being "not effective at all" and 10 being "very effective". The study found that the most effective treatment option for diaper dermatitis were using barrier cream (average rating of 8.2), changing diapers frequently (average rating of 8.5), and keeping the diaper area clean and dry (average rating of 8.3) [63].

Regarding challenges mothers face in preventing and managing diaper dermatitis, 45% mentioned keeping their baby's skin clean and dry, 25% mentioned finding a treatment option that worked, while 20% reckoned they faced difficulty affording adequate treatment. Similar results were obtained from a qualitative study of the challenges and coping strategies of mothers of infants with diaper dermatitis in Cameroon carried out where 20 mothers of infants with diaper dermatitis were interviewed. The most common challenges mentioned by the mothers were lack of knowledge about the causes and prevention of diaper dermatitis, lack of access to basic hygiene products, and financial constraints.

Envisaged solutions to the problems faced

The majority (69%) reckoned they will find it easier to prevent and manage diaper dermatitis if they received more health talks on the topic so that the possess adequate and helpful knowledge. From another point of view, 31% of respondents propose that health campaigns with free diaper dermatitis consultation will both curb their expenditure in treating diaper dermatitis and increase their chances of obtaining a treatment that works [64].

Conclusion

Diaper dermatitis is one of the most common skin conditions in neonates and infants. This condition has a complex and multifactorial etiology. Interaction of multiple factors, including diaper occlusion, skin maceration, and prolonged contact with irritants leads to skin barrier breakdown, microbial invasion, and inflammation. Key to preventing and managing Diaper dermatitis is knowledge of its etiology and elimination of causative factors. The current decreasing incidence and severity of Diaper dermatitis reflect improvements in the design and performance of diapers, diaper skin care products, and overall awareness about maintaining infant skin health.

Mothers have an overall averagely good knowledge on diaper dermatitis, the most common areas of misunderstanding being the causes of diaper dermatitis, the best practices for prevention, and the appropriate treatments. Mothers generally have a positive attitude towards diaper dermatitis, believing that it is a common and relatively harmless condition. However, they also expressed some concerns about the severity of diaper dermatitis, the potential for complications, and the impact of diaper dermatitis on their child's comfort and development. Also, mothers' practices for preventing diaper dermatitis were inconsistent with their knowledge. For example, although most mothers knew that frequent diaper changes are important for preventing diaper dermatitis, only few of them reported changing their child's diaper every two hours. Similarly, majority of mothers still use talcum powder on their child's bottom as a preventive measure against diaper dermatitis, which is inappropriate. All these findings suggest that more effort is required of the health care system to inculcate nursing mothers with adequate knowledge on diaper dermatitis, such that they can improve on the preventive measures put to practice.

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