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Newborn Care Practices of Mothers in Arab Societies: Implication for Infant Welfare

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ABSTRACT

Introduction: There are at least 22 Arab league states and sections in Northern Africa, southwestern Asia, and Europe that incorporate the vast Middle Eastern culture. The purpose of this study was to identify the cultural variations in newborn care practices, self-management of common illnesses, and their potential impact on infant welfare.

Methods: A qualitative design using a focus group approach with 37 Arab mothers in Jordan was used. *Results:* Findings revealed strong similarities in terms of beliefs, care practices and the experience of inter-generational conflict in establishing and maintaining traditional practices among mothers. Potentially harmful practices included restrictive swaddling, rubbing a newborn's body with salt, and encouraging the ingestion of herbs in newborns.

Discussion: It is important for nurses and midwives to be aware of traditional practices, cultural beliefs, and the implications for infant welfare if they are to effectively engage with families to promote the wellbeing of the newborn.

Keywords: newborn care, infant health, folk remedies, self-management, Arab societies.

Introduction

In Middle Eastern societies there are at least 22 Arab league states and sections in Northern Africa, southwestern Asia, and Europe (Cleveland & Bunton, 2016), that incorporate the vast Middle Eastern culture. Significantly, the term “Arab” is related to culture and language rather than ancestry or ethnicity, as Arab people are of mixed race and ethnic backgrounds.

Cultural and personal frameworks strongly influence the ways in which we raise and nurture children (John et al., 2015). Different cultural practices and meanings ascribed to care practices may exist within some groups or individuals within the same culture (Ball et al., 2012). Socio-cultural practices are laden with significant values, norms and meanings in different societies, which are then incorporated into everyday social expectations of what a particular society expects mothers to do (or not to do) during the days following birth (Sharma et al., 2016). It is important to understand variations and similarities in cultural practices in order provide culturally competent care (Douglas et al., 2014).

Whilst similarities in newborn care practices between some cultures are evident, the beliefs ascribed to those practices can vary by culture (Ball et al., 2012; Latha et al., 2017). In Tanzania, for example, mothers believe that applying oil to their newborn’s skin is an intervention for preventing harm or protecting newborns against evil; whereas, mothers apply oil to their newborn’s skin in rural southern Nepal to promote stronger and healthier newborns (Thairu & Pelto, 2008).

Most ethno-medical practices are not associated with potential health risks. Recent results from randomized clinical trials reveal that some folk remedies promote health such as breast-milk application to treat conjunctivitis (Ghaemi et al., 2014), atopic eczema (Kasrae et

al., 2015), or for umbilical care (Mahrous et al., 2012). However, other practices are linked to negative health outcomes. For example, delaying the first feed, pre-lacteal feeding (food given to newborns before breastfeeding is initiated) (Berde et al., 2017; Parashar et al., 2017), supplementary feeds of honey, water and sugar or salt (Fikree et al. 2005, Kara et al. 2012), immediate bathing (Lund, 2016; Thairu & Pelto, 2008) and the application of ash or ghee to the umbilical stump (Coffey & Brown, 2017; Fikree et al., 2005).

The relationship between health beliefs and newborn care practices have been studied in several countries including African societies in Nepal (Kara et al., 2012), Uganda (Waiswa et al., 2015), and Nigeria (John et al., 2015), as well as in Turkish societies (Ayaz & Efe, 2008), and Maori and Pacific Islander societies in New Zealand (Jones et al., 2016). Health beliefs and practices have not been explored within Middle Eastern societies, including practices in Jordan or other Arab societies. In Jordan, the majority of the population are Arab (98%), with some Circassians, Chechens and Armenians (2%). More than 92% of the population embrace the Islamic faith and approximately 6% of the population are Christian (Baer, 2016). Due to the varieties of health care practices of infants in Arab cultures, the purpose of this study was to identify the cultural variations in newborn care practices, self-management of common illnesses, and their potential impact on infant welfare of mothers in Arab societies.

Method

Design

A qualitative design using an exploratory study via a focus group approach was used to explore newborn care and self-management practices employed by Arab women in Jordan. The decision to conduct focus groups as the methodology for the study was based on the

notion that it offers optimal outcomes for examining social norms and personal opinions that are difficult to obtain with many other methodological procedures (Stalmeijer et al., 2014). Focus groups are defined as “group discussions organized to explore a specific set of issues. The group is focused in the sense that it involves some kind of collective activity that distinguishes from the broader category of group interview by the explicit use of the group interaction as research data” (Kitzinger 1994, p. 103). Crucial features of this approach are that experiences, opinions and expectations of participants can be obtained to explore ways of framing knowledge.

Sample

All participants in this study were selected using snowball sampling or network sampling where mothers referred other mothers who wanted to talk about their newborn care practices. The inclusion criteria were mothers and grandmothers from an Arab country and able to converse in Arabic. Efforts were made to obtain variation of the respondent’s age, country of origin, and education. In total, 37 mothers participated, 15 from Amman, 8 from Zarqa, 7 from Salt, and 7 from Karak. Most of the participants were aged in their mid-30s or early-40s and educated (Table 1).

Setting

All focus groups were conducted in the participants’ local city. Three of the focus groups were conducted at a local community setting, and two within a university setting in Amman. The focus group facilitator was female to ensure that the groups were conducted in a culturally and gender specific manner.

Procedure for Data Collection

This study was commenced in June 2016, after receiving permission from the Institutional Review Board of the university. The group facilitator informed participants of the purpose of the study explaining that the findings of the study would be used to explore how Arab families enact health beliefs and care practices in relation to treatment and self-management of illness in newborns. The participants were informed that they had the right to decline participation at any time and all who were asked consented to participate in the study with no declines.

The focus groups were conducted using open-ended questions to promote discussion around immediate care of the newborn, self-management of common childhood illnesses, and the meaning assigned to these practices. Examples of the questions used were ‘can you tell me how you take care of your newborn’s skin and his/her umbilical stump’, ‘are there certain care practices that you have followed for preventing and managing illness in your newborn?’, ‘if so, what are they?’, ‘do you believe these practices were helpful?’, ‘who helped you perform it?’, and ‘why do you think these were helpful/not helpful?’. Participants were asked to discuss their own experiences and compare these to their perceived cultural norms within their family networks. For the purpose of this study, religious practices associated with the newborn’s immediate care in Islam were excluded. This included male circumcision, making the call to prayer “Adhaan” in the newborn’s ear shortly after birth and the “Aqeeqah” where a sheep is sacrificed and the newborn’s head is shaved.

Data Analysis

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All the focus group sessions were audio-taped, transcribed and a thematic analysis was undertaken in Arabic. A thematic analysis method described by Braun and Clarke (2006) was used following a 6-step approach. Firstly, reading and re-reading the focus group data was conducted. Secondly, generating an initial list of interesting features of the focus group data was constructed. Thirdly, collating initial codes into potential themes was commenced. A thematic map of the analysis was generated, with relation to the coding extracted at level 1, and then the entire data set was collated at level 2 coding. Researchers named and defined the themes, and researchers reported the selected themes.

Results

Sample Characteristics

In total five focus groups in four different cities were conducted, involving 37 female participants. Each focus group consisted of 7-9 participants per discussion group. The demographics of the focus groups revealed the women were homogeneous, in terms of country in which the woman was raised or originated and included their ages and education levels (see table 1).

[INSERT TABLE 1 ABOUT HERE]

Major Themes Identified

Themes and sub-themes identified in this study are presented in table 2. The three major themes were: 1) immediate care of the newborn; 2) general practices; and 3) practices for cosmetic.

[INSERT TABLE 2 ABOUT HERE]

Theme 1: Immediate care of the newborn

All mothers from all groups acknowledged the value of breastfeeding. Yet some mothers (n=7) were wary of, or avoided breastfeeding newborns in the first two days' post birth, or discarded their colostrum. Perceived milk insufficiency or "Milk Expiry or Impurity" was one of main reasons given by mothers for giving up exclusive breastfeeding or delaying breast feeding. Some mothers reported feeding newborns honey and fenugreek (herbaceous plant of the pea family) at the first feed. Those mothers believed that it was good to start the newborn's life with something sweet, and that Fenugreek was good for the newborn's immunity and wellbeing.

I didn't have any [breastmilk]. For the first couple of days there were few bad drops of it [colostrum]. My husband's family brought some honey and homemade butter to the hospital and gave her some.

Another common practice amongst the participants was giving the newborn a bottle of anise and water. There was a common belief that colostrum produced post birth was insufficient to meet the newborn's needs.

I had insufficient milk, and I can tell as it took me a while to start having a good supply of milk. In the first few days after birth I started giving all my kids some herbal tea, mainly anise. It cleans their tummy and prevents colic and constipation.

With few exceptions, immediate bathing of the newborn was the norm amongst parents. This usually meant that if the newborn was not bathed by the midwives at the hospital, the mother or the mother-in-law would help with bathing the newborn.

It's filthy to leave the baby without a bath. Once we received the baby from the nursery, I asked the nurses to give him a bath.

Many mothers described applying salt to their newborn's skin and a few participants said that they left the salt overnight on the newborn's skin before bathing the next day. It was performed to clean the newborn's skin and was believed to purify the body from maternal blood and secretions.

I have seven children and I have rubbed their skin with salt after birth, my friend is a midwife and she performed the same to her four daughters and I will do the same for my grandchildren as well. I remember feeling so guilty because I did not massage one of my babies with salt after he was born, as he was preterm baby. ...Old ladies (participant start laughing) used to say in my city that those who you do not massage them with salt will end up to be shameless and rude...I know it make nonsense.

Newborn massage was a widespread practice and most mothers reported using olive oil in performing newborn massage. This was used for both cosmetic and therapeutic purposes.

Olive oil is a blessing oil from a blessing tree. It is always good to use it for babies and for grownups.... All my children were massaged with olive oil after birth. It makes their skin soft and gives them extra strength....I used to do it daily and sometimes I will do it for the legs and tummy and expose the baby to sun so the body can better absorb it.....

Theme 2: General Practices in The Early Post-Partum Period

The most common subcategories of traditional care practices among participants was swaddling newborns by tightly wrapping the legs straight and binding both arms by the side of the newborn's trunk. Several mothers indicated that they used a special abdomen pelt to prevent hernia. Tight swaddling was performed to generally strengthen the newborn's muscles and to prevent any injury when carrying the newborn. All mothers believed that swaddling their newborn in the first few months of life was essential for the newborn's wellbeing.

My mum and my mother-in-law advised me that I should never carry my baby without swaddling him first. My mother used to swaddle my baby so tight that he looked like a tall stalk or like a cigar wrap. I often loosen it up once she leaves the room.

The majority of mothers believed that they should take preventive measures to care for their newborn's umbilical stump. Most participants reported applying ethanol or an antibiotic powder to their newborn's umbilical stump.

My mother-in-law asked me to use ethanol to speed the separation of the baby's stump. I was afraid for the baby that it may hurt so I have diluted it with water. Few days later, it started oozing with a rotten smell. The doctor told me that it is infected and that I should not have diluted with water.

Some participants, especially those living with extended family and in rural areas, reported the use of old coffee grounds or Kohl powder (galena / lead sulfide) over the newborn's umbilical stump.

In the old days, people used the red earth soil and sometimes coffee grounds Yet with my grownup children, my mother in law, God bless her soul, used kohl powder, and then you may use a coin over the stump to prevent it from being herniated. It [refers to stump] dried and fell off a few days later. These days we have good Arabic Kohl, not like the commercial and low quality one at the markets now.

Theme 3: Practices for Cosmetic Reasons or Protection from Harm

The practice of putting an amulet on the newborn in the shape of a hand was described by some participants. They believed it could help banish evil or negative energy away from their newborn. Also a blue Pit with blue eyes was used as a symbol of protection from envy.

I did not buy this golden palm; it was a gift from my friend after my little baby was born I used to put it on my baby's swaddling blanket to protect him from envious eyes I had another golden piece carved with phrases of the Quran.

In the above situation, using a golden palm was mainly for its financial value, where the five fingers of the palm represents the five pillars of Islam (faith, fasting, pilgrimage, prayer, and tax). Some mothers described the use of agate, bead or gemstone for protection and healing properties. While this was not a common practice, it was a traditional practice supported by previous generations within the family.

I used these items for my children, as well as for myself and for my house and care. I was simply ignorant as I learned now that it is forbidden in Islam and it is simply a useless amulet... this is simply an

ignorant belief and in the old days my grandma used to believe that gemstones had healing properties; agate to get rid of distress, as well as using a bead stone with garlic over the baby's head for protection and healing properties.

Another common practice noted among some participants was the use of kohl on the newborn's eyes. This practice was used in both boys and girls, mainly for cosmetic reasons. Yet, some mothers believed that applying kohl on the newborn's eyes may protect the newborn from the evil eye.

It is just good for the baby. My mother-in-law kept telling me to apply kohl for my child's eyes when they were babies and I simply see no harm in that.

Traditional beliefs reported by three participants, but not commonly practiced were also noted:

In this city, we used to do ear piercing for male babies born on a Friday, my brother had one.... he was supposed to wear earrings until he was 5 years old.

For preventing the baby from becoming jaundiced, my mother used to dress me and my brothers in yellow clothes....

She [refers to her mother] had nine children die before reaching seven years of age so she started using an old cloth of another live baby as they believed at that time that this would bring health to her newborn and they will survive.

Discussion

The first part of this study identified cultural variations in newborn care practices among an Arab society. The cultural information elicited are discussed with reference to the meaning assigned to these practices and the potential impact on a newborn's health. In general, the results revealed some incongruity between traditional practices and global health recommendations. This includes practices related to areas of newborn feeding, bathing, swaddling and umbilical stump care. While these practices might be perceived as harmless or safe, the impact on the health of the newborn is controversial. For example, while newborn swaddling has been practiced in many countries for centuries, recent evidence suggests that the manner in which newborns are swaddled may be harmful (Day, 2015). This may include an increased risk of overheating, Sudden Infant Death Syndrome (Day, 2015), and hip dysplasia (Blatt, 2015). In Jordan, the practice of newborn swaddling is common, and it is important for mothers to be aware of the potential risk of restrictive swaddling and encourage mothers to adopt safe swaddling practices.

Generally, all mothers reported placing a high value on breastfeeding during the first two years of life. Yet, there were discouraging findings with respect to knowledge regarding colostrum. For example, discarding of colostrum or the belief that colostrum is “bad” or “insufficient” was noted. Similar findings were reported in studies conducted in Africa (John et al., 2015), Turkey (Ayaz & Efe, 2008), New Zealand (Jones et al., 2016), and Pakistan (Sohail & Khaliq, 2017). This finding highlights the need for further education for mothers on the nutritional value of colostrum for newborns. Other traditional feeding practices noted among a few participants included the use of honey, butter or herbs fed to newborns.

Practices related to ingestion of herbal tea and honey are contravened by current global health recommendations. It is suggested that feeding newborns with herbal tea or sugared water may lead to malnutrition (Thairu & Pelto, 2008), herbal toxicity (Dambisya & Tindimwebwa, 2003; Hannan, 2014; Kaplowitz et al., 2016; Ghorani-Azam et al., 2018), or induce botulism via honey ingestion (Mckenna et al., 2009).

In this study, there was also similarity in the reported use of salt when bathing newborns and the use of traditional olive oil massage for cosmetic or healing properties. Bathing the newborn in salt water to improve the smell of newborns has been reported in other parts of the world, including Turkish communities (Ayaz & Efe, 2008) and some Indian societies (Rahman & Ali, 2015). Various studies have argued that bathing newborns in salt water is related to dehydration (Atasay et al., 2003). The application of olive oil to the newborn's skin to strengthen muscle tone and enhance immunity has been linked to concerns of increasing the risk of infection through disrupting the epidermis and enhancing the entry of pathogens through the newborn's skin (Thairu & Pelto, 2008).

Finally, it was noted that several participants and their family members placed a blue beaded amulet in the newborn's bedding to provide protection from the 'Evil Eye'. While such practices are considered a superstition in the Islamic religion, it remains common among Muslim communities in Turkey (Altiparmak & Aktas, 2015), Greece (Hardie, 1923) and Jewish cultures in the modern period in Israel (Sagiv, 2017). This study did not attempt to quantify participant's beliefs or practices; rather, it intended to explore the range of traditional caring practices among mothers in this society. Our findings show similarities between mothers across countries of origin, education, and employment.

Implications for Practice

The findings from this study highlight the significance of early identification of high risk newborn care practices to provide awareness and tailored interventions. Midwives and nurses working with Arab and Middle Eastern families should be aware of their client's health beliefs about newborn care practices. Adding this process to routine antenatal care may help improve health outcomes, and demonstrate cultural competency in newborn care.

The education of mothers should therefore include the effects of restrictive swaddling on newborn's hips and respiration. Mothers should also be advised on the risk of the ingestion of herbal tea and honey in newborns, and instead initiate early and exclusive breastfeeding during the first six months of newborn's life. Midwives and nurses should also initiate awareness regarding the short and long-term impact of adding salt to water to baths, applying kohl, or perfume to newborns.

Rigor and Limitations

Research rigor was established for this study by peer review and debriefing to ensure the credibility and trustworthiness of the findings, with thorough member checking conducted at the end of each focus group session (Elo et al., 2014). All interviews were conducted in the participants' native language (Arabic), for optimal elaboration of health care practices and transcript analysis was performed for verification. Confirmability was guaranteed through audit trails and reflexivity. An external audit was established with an external researcher to secure dependability. This included a variety of geographic variables of the participants to ensure that the data was representative of the sample selection, which included rural and urban areas, and a diversity of socio-demographic Variables. However, there are some

limitations in terms of selection bias that may have occurred while using snowball sampling, as well as the possibility that our findings may not be applicable to other Arab societies who have different demographic profiles. Further research is required to see if our findings are replicable in other Arab societies. Until then, the results of this study can be used as a guidance to inform health promotion for newborn care practices among Arab societies.

Conclusion

In conclusion, several aspects of cultural and traditional beliefs and practices among Arab societies are incongruent with global health recommendations for evidence-based practice. Some of the cultural beliefs and norms may have the capacity to negatively impact on the newborn's health and wellbeing, while others appear safe, or the impact is uncertain.

Midwives and nurses are a pivotal source of advice and information for childbearing women. In addition, awareness of local cultural practices within midwives and nurses' working environments are vital in providing culturally competent care and in working with women and their families to promote safe, evidence-based practice. It remains impossible to know the actual impact of these practices without performing clinical research or longitudinal studies for individual cultural practises. The need for further clinical research and culturally sensitive interventions are recommended.

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TABLES

Table 1. Demographic Characteristics of the Participants Involved in The Study (N = 37).

Characteristics		Total No. (%)	
Age (in years)			
≤ 20	1	02.7	
21 - 35	9	24.3	
36 - 45	21	56.8	
≥ 45	6	16.2	
Level of education			
No Schooling	none	00.0	
Primary School	2	05.4	
Secondary School	11	29.7	
University	15	40.5	
Postgraduate	9	24.4	
Occupation			
Housewife	15	40.5	
School teacher	9	24.4	
Engineer/agriculture	5	13.5	
Clerical worker	3	8.1	
University lecturer	5	13.5	
Parity			

	1-2	10	27.0
	3-5	20	54.1
	6-7	5	13.5
	≥ 8	2	05.4
Place of residence			
	Amman	15	40.6
	Zarqa	8	21.6
	Salt	7	18.9
	Karak	7	18.9
Country of Origin			
	Jordan	13	35.1
	Palestine (citizens)	19	51.4
	Syria (citizens)	5	13.5

Table 2. Common Themes and Subthemes for Care-Giving Practices among Participants, Meaning Assigned to these Practices, Prevalence and Possible Health Impact.

<i>Themes/ Sub-Themes</i>	<i>Description of Care-Given Practice</i>	<i>Beliefs Assigned for Practice</i>	<i>Commonness of practice</i>
<i>Immediate care of the baby</i>			
Discarding of colostrum milk	Delaying breastfeeding in the first two days, or discarding colostrum	Perceived milk insufficiency or “Milk Expiry or Impurity”	Common ^a
Ingestion of anise, Creole, or fenugreek (herbaceous plant of the pea family)	Giving a bottle of anise, or water until milk supply is established	To prevent colic pain and to enhance digestion. In addition to beliefs that Fenugreek is good for the newborn’s immunity and wellbeing.	Widespread ^b

Ingestion of honey and ghee (clarified butter)	Rubbing the newborns' gums with honey and ghee.	To start life with a taste of something sweet, and to provide the newborn with energy.	Limited ^c
Immediate bathing	Washing the newborn immediately with water and soap to remove vernix caseosa and blood.	To be clean the newborn, as blood and vernix are dirty and full of germs.	Widespread
Adding salt to the bath water.	Using salt (alone or with olive oil) directly to the newborn's skin and left overnight before giving the newborn a bath the next day. Or through adding salt to the bath water before bathing the newborn.	To clean the newborn and avoid bacterial contamination.	Widespread

Massage with olive oil	Using olive oil in performing newborn massage, with special stretching to the newborn's limbs and muscles.	To moisturise the newborn's skin, enhance immunity and to make the newborn stronger.	Widespread
Umbilical cord care with alcohol or antibiotics	Application of ethanol or antibiotic powder to the newborn's umbilical stump after every diaper change.	To clean the umbilical stump and prevent infection.	Widespread
Umbilical cord care with kohl powder, ash, coffee grounds.	Applying used coffee grounds, ash, or Kohl powder over the umbilical stump.	To help the umbilical stump dry and speed separation without smelling.	Limited

General practices in the early post-partum period

Restrictive swaddling	Tightly wrapping the newborn's legs straight and binding both arms by the side of the newborn's trunk.	To strengthen the newborn's muscles and to prevent any injury when carrying the newborn.	Widespread
Corset/ strap for the umbilical cord	Strapping the newborn with a special abdomen belt to prevent hernia. Sometimes, placing a coin over the umbilical stump.	To prevent hernias and to push in the protruding umbilical stump.	Widespread
Ingestion of herbs or water	Adding anise, chamomile, or fenugreek to warm water and give it to newborns and infants in feeding bottles, with sugar often , added to increase the taste	To prevent and treat colic and to help bowel movements.	Widespread

Practices for protection of harm “envy” and cosmetics

Amulets of Blue Pit or agate place	Wearing an amulet in the shape of a hand containing a blue pit. Usually placed into the newborn's clothing by a safety pin.	To help banish evil or negative energy or as a protection from envy.	Limited
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on to the

newborn's cloths

Kohl	Applying Arabic kohl on the newborn's eyes and eyebrows	To improve the newborn's vision, strengthen eyelashes- protecting against envy or evil eyes.	Widespread
Using Alum	Apply Alum powered mixed with rose water to female newborn's groin and under arm folds.	To prevent excessive body hair and enhance body smell.	Limited
Incense and perfume	Using special aloeswood or burning dried agarwood to create a nice smell in the home.	For incense and perfume, as well as keeping negative energy away from the house and children	Widespread
Bat blood, breast milk or ice.	Applying bat's blood over the baby's body. Others may use breast milk or ice mainly under the armpit or groin area.	To prevent excessive hair growth in female newborns.	Rarely (cited but was never practiced)

^a Common: described and practised by two or more participants in three groups or more.

^b Widespread: described and practised by two participants in two groups.

^c Limited: described and practised in one group only.

^d Rarely: described but not practiced.

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