Traditional practices frequently used for the newborn in Turkey:
A literature review

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The aim of this study is to identify some traditional practices used for the newborn babies in Turkey and to discuss the
possible effects of these practices upon the health of the babies. The traditional care practices (salting, swaddling, holluk,
starting breastfeeding late, practices against newborn jaundice, making the forties, etc.) reported to be most prevalent
between January 2008 and October 2012 were examined. Possible risks of these practices were identified as follows:
Hypernatremia due to salting the newborn, tetanus because of wrapping the newborn in holluk, hypoglycemia owing to
starting breastfeeding late, hip dysplasia due to tight swaddling of the newborn, and kernicterus as a result of delaying the
medical treatment of jaundice. Making the forties was regarded positive in terms of psychological relief but negative in
terms of infection.

Keywords: Traditional practices, Newborn, Turkey, Literature review, Nursing

AO1D 7/31, AO1D 7/31, AO1D 7/31, AO1D 7/31, AO1D 23/21, AO1D 23/07- AO1D 23/11, AO1D 23/13, AO1D 20/00

The knowledge, belief and values of the society as well as the living place and cultural features affect the
practices used for the children and the babies. These beliefs and practices may be rational or irrational and
may become useful or harmful behaviors depending on their objectives and outcomes. Some of these
practices cannot be explained exactly in medical terms and their effects are not known accurately. The
traditional practices used at times of either health or disease of the newborn since birth may cause a delay
in the healing process or even death due to the aggravation of the disease because the basic causes of
the diseases are ignored.

In Turkish culture, the newborn children are held very precious. Women want to have a baby as soon as
they get married. However, while they bring up their babies, they tend to opt for many traditional practices
the results of which are often unknown. The frequently used traditional practices for the babies are
as follows: salting the baby, swaddling the baby, wrapping the baby in holluk, waiting for some time to
start breastfeeding the baby, and trying various treatment methods meant to cure newborn jaundice.

According to the 24th article of UNICEF Convention on the Rights of the Child, it is emphasized that
appropriate and effective measures should be taken in order to terminate traditional harmful practices for the
health of the children. Pediatric nurses should be aware of their own cultural values, accept the cultural differences of the
society, and should have the ability to tailor their practical skills in ways to accommodate for the cultural
structure of the children and their families in order to provide care in a culturally competent manner.
Awareness of this issue on the part of the nurses is important in terms of holistic nursing approach and the
quality of the care.

There are different studies aimed at identifying traditional practices common in Turkey and across the
world but only a small number of these studies mention the potentially positive or negative outcomes of these
practices.

Objectives of the study
1 To identify some traditional practices used in
Turkey for the newborn.
2 To discuss the potentially useful and harmful effects of these practices on the health of the newborn.
Methodology

Sources of data

For the aims of the current review; the topic of the study was examined in detail in the databases of Pubmed and Google Scholar via different keywords relevant to the subject. The methods and findings of medical and nursing studies which are believed to have affected the health of the newborn and which were performed during January 2008 and October 2012 in Turkey were included in the study. In Turkey, traditional care practices such as salting, swaddling, holluk, starting to breastfeed late, making the forties, and taking traditional measures against jaundice are common. Information obtained from relevant descriptive studies, reviews, evidence-based researches and books is utilized in the Discussion and Results part of the study.

The review of literature was achieved out of three phases of data collection research. In the first phase, the studies conducted in Turkey and published in either Turkish or English language were sought using bilingual keywords such as Turkey, newborn, and traditional neonatal care practices. The most relevant 14 articles in full text (6 articles published in Turkish and 8 articles in English) were included in the study. In the second phase, commonly used practices for the newborn were screened. In the third phase, literature information that can cater for the Discussion part was gathered from the search through the keywords “newborn, salting, swaddling, making the forties, holluk, jaundice, starting to breastfeed late” was used in the study. Special attention was paid to include the most recently conducted articles at the time of the current study. Full text articles referred in this study were accessed online via the libraries of Bozok University and Uludağ University.

General results

Many articles were found in PUBMED and Google Scholar. Articles published from 2008 and on were assessed in order to refine them and also the word “Turkey” were added in the sought words.

Database searches

A total of 343 articles were identified using the search terms (Fig. 1). Initial scan of the titles and abstracts led to the exclusion of duplicates, editorial and conceptual pieces. Following this, 116 full-text articles were read for inclusion. At the last stage of review, 329 articles were excluded because of incomplete reporting of effects and/or outcomes of the

![Fig. 1—Criteria for the selection of the articles used in the study](image)

Results

The main focus of this study is the basic health problems and issues faced in the newborn in Turkey. Some of the rituals and traditional treatment methods used for the newborn are identified as follows: salting the baby, swaddling the baby, wrapping the baby in holluk, starting to breastfeed the baby late, making the forties, and various treatment methods against jaundice (Table 1).

As seen in Table 1, the most commonly used traditional practices were (a) salting the baby, (b) swaddling the baby and (c) various treatment methods used against jaundice.

In the studies of İşık et al. (2010) and of Çetinkaya et al. (2008), salting the baby was the most widely used practice (86.5% and 74.2%, respectively)\(^1\),\(^2\). Swaddling is the most commonly used traditional practice for the newborn in Turkey. Alparslan & Demirel (2012) reported that this practice was applied for % 84 of the newborn babies\(^3\). Similarly, in the study of Ayaz & Efe (2008) swaddling was found to be widely practiced (% 81)\(^4\). Wrapping in holluk and starting breastfeeding late were the least commonly used practices. As shown in Table 1, holluk, primarily practiced in middle and southern parts of Turkey, was found to be used for % 35 of the newborn in Ayaz & Efe (2008), the highest rate to be reported among all the studies screened\(^5\). Starting breastfeeding late, which is already applied in small scales, is becoming less and less common in all parts of Turkey. The highest rate for this practice (% 19.2) was reported in
Table 1—The rates of the use of the traditional practices identified in previous studies

<table>
<thead>
<tr>
<th>Traditional Practices (%)</th>
<th>Salting</th>
<th>Swaddling</th>
<th>Holluk</th>
<th>Starting Breastfeeding late</th>
<th>Newborn jaundice</th>
<th>Making the forties</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Articles</strong></td>
<td><strong>2012</strong></td>
<td><strong>2012</strong></td>
<td><strong>2012</strong></td>
<td><strong>2012</strong></td>
<td><strong>2012</strong></td>
<td><strong>2012</strong></td>
</tr>
<tr>
<td>Alparslan &amp; Demirel</td>
<td>45.3</td>
<td>84.0</td>
<td>29.3</td>
<td>-</td>
<td>-</td>
<td>62.4</td>
</tr>
<tr>
<td>Yalçın</td>
<td>63.0</td>
<td>66.1</td>
<td>23.5</td>
<td>-</td>
<td>55.3</td>
<td>64.1</td>
</tr>
<tr>
<td>Yılmaz et al.</td>
<td>-</td>
<td>47.3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Kahrıman et al.</td>
<td>31.5</td>
<td>31.3</td>
<td>-</td>
<td>0.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Çalışkan &amp; Bayat</td>
<td>17.5</td>
<td>56.3</td>
<td>8.2</td>
<td>-</td>
<td>48.9</td>
<td>-</td>
</tr>
<tr>
<td>Taşar et al.</td>
<td>21.6</td>
<td>1.4</td>
<td>1.2</td>
<td>-</td>
<td>15.0</td>
<td>-</td>
</tr>
<tr>
<td>Isık et al.</td>
<td>86.5</td>
<td>51.9</td>
<td>21.1</td>
<td>-</td>
<td>46.1</td>
<td>50.0</td>
</tr>
<tr>
<td>Beşer et al.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>7.2</td>
<td>31.4</td>
<td>14.3</td>
</tr>
<tr>
<td>Aliefeinoğlu et al.</td>
<td>0.7</td>
<td>27.2</td>
<td>0.2</td>
<td>2.8</td>
<td>0.8</td>
<td>-</td>
</tr>
<tr>
<td>Bölükbas et al.</td>
<td>-</td>
<td>53.2</td>
<td>-</td>
<td>19.2</td>
<td>12.4</td>
<td>3.5</td>
</tr>
<tr>
<td>Çakmak et al.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>41.9</td>
<td>-</td>
</tr>
<tr>
<td>Geçkil et al.</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>89.0</td>
<td>-</td>
</tr>
<tr>
<td>Çetinkaya et al.</td>
<td>74.2</td>
<td>60.4</td>
<td>-</td>
<td>14.6</td>
<td>6.4</td>
<td>73.7</td>
</tr>
<tr>
<td>Ayaz &amp; Efe</td>
<td>40.0</td>
<td>81.0</td>
<td>35.0</td>
<td>17.0</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
the study of Bölükbaşı et al. (2009)\textsuperscript{16}. Although it is typically used in each part of Turkey, traditional measures taken against the newborn jaundice was reported to be most common in Southern Turkey (\textsuperscript{89}) and Middle Anatolia region (\textsuperscript{55.3}). Making the forties was most commonly observed (\textsuperscript{73.7}) in the West Anatolia regions according to Çetinkaya et al. (2008)\textsuperscript{12}. The studies shown in Table 1 were conducted in cities and rural regions in all parts of Turkey or contained data obtained from the patients who went to the policlinics.

Discussion

The differences observed in Table 1 in frequencies (in percentages) of the traditional practices may be due to different times (year of the study) and settings of the studies (the regions, urban vs. rural areas). The geographical characteristics of Turkey considerably differ from region to region (e.g. northern and eastern parts of Turkey are very mountainous). Particularly in eastern regions, winter is harsh and long and people usually have inadequate socio-economical facilities, which results in insufficient and poor use of health care services and an increase in the use of traditional practices.

Salting babies

As indicated in Table 1, the study of Işık et al. (2010) revealed salting practice as the most widely used practice, the reason for which may be that the study group involved older women (aged ≥ 50 years)\textsuperscript{16}. Salting practice includes rubbing the baby’s body with moist salt and putting the salting in his mouth for about one hour. Different methods of salting are used in Turkey as well as other parts of the world such as Middle East, India, China. This practice was performed with the assumption that it would (a) avoid the bad smell of the body sweat of the newborn, (b) decrease sweating, (c) strengthen the muscles and bones, (d) prevent infections, and (e) ensure that injuries would heal fast. Believed to deter supernatural beings and evils, salt is traditionally used with the assumption that it would not bring disease and death\textsuperscript{5, 13, 17}.

Studies in the previous literature revealed that extensive amount of salt may cause absorption of the sodium through skin and thus epidermolysis and hypernatremia, which is a life-threatening disease with symptoms of dry or burnt-like skin\textsuperscript{15}. In many cases of salting in which the newborn babies were brought to hospitals, it has been observed that numerous medically dangerous conditions such as hypernatremia, renal failure as a complication of hypernatremia, dehydration, neonatal convulsion\textsuperscript{19, 20}, skin lesions, hyperbilirubinemia, intracranial bleeding, and even death\textsuperscript{17} can occur. Fournier's gangrene cases have also been observed among the newborn babies due to salting\textsuperscript{21}. As dehydration that develops after hypernatremia may endanger the life of the baby, nurses should be attentive to salting practice and its results while in their evaluation of the newborn.

Swaddling

Swaddling is the practice of wrapping infants in blankets or similar cloth so that movements of the head and limbs are tightly restricted. Swaddling is known for ages. The oldest practice of swaddling dates back to the time of Soranus of antique Rome (around 100 AD)\textsuperscript{22} . Later, in Sweden, in a painting belonging to the New Age, it was discovered that a picture depicted a baby swaddled\textsuperscript{23}. Rejected by modern medicine, swaddling is still applied as part of a tradition in Turkish society.

As can be observed in Table 1, the studies of Alparslan & Demirel (2012) and Ayaz & Efe (2008) exposed swaddling as the most widely used practice. It is a possibility that swaddling was meant to protect the babies from cold\textsuperscript{5, 13, 16, 24, 25} owing to the heating problems caused by high altitude, cold climate and low socio-economical status of the places where the studies were conducted. People swaddle the babies as tightly as possible assuming that the more tightly they swaddle the babies the stronger they will become. Swaddling also aims at keeping the baby’s body in symmetry and preventing the baby doing dangerous movements\textsuperscript{5-13, 16, 24, 25}.

In the studies investigating the effects of swaddling, it was demonstrated that the practice of tight swaddling was harmful because it trigger hip dislocation among those with a tendency of congenital hip dysplasia as well as causing feelings of unease and unrest for the newborn\textsuperscript{16, 23, 26}. Besides these, swaddling prevents skin contact between mother and her baby, which fosters mother-baby interaction, decreases baby-cry and thus positively affects their health\textsuperscript{22, 27}.

In the guiding study of Van Sleuwen et al. (2007) on swaddling, it was emphasized that the position of hips and legs tightly and straightly wrapped in a conjoined way would lead to hip dysplasia as well as
lack of vitamin D, tendency for acute respiratory infections, risks of overheating and SIDS (if laid or turned in prone position). The experimental study of Manaseki-Holland et al. (2010) reported that swaddling did not have a significant effect upon mental and psycho-motor growth of the children during the first years of life. The experimental study of Meyer & Erler (2011) indicated that swaddling provided a more peaceful sleeping. The study of Karp (2008) pointed out that wrapping the lower extremities in a loose way caused the babies to wake up less and decreased their colic cry while swaddling in supine position decreased the risk of sudden infant death syndrome. As a result, although partial and loose swaddling practice may be used in cold regions during winter, it should be born in mind that tight swaddling – as done in some regions of our country - is medically unacceptable due to above mentioned dangers.

**Wrapping the baby in holluk**

The highest rate of wrapping the baby in holluk occurred in the study of Ayaz & Efe (2008). The fact that this study was conducted in rural regions on an earlier date than the other ones may have affected this result. Holluk is a kind of soil which does not turn into mud easily, which feels like silt and which contains clay. Holluk is heated up to a certain degree not to harm the skin of the baby. It is manually scattered on a piece of a second cloth placed on swaddling cloth and the baby is swaddled in a manner that holluk can touch lower parts/hips of the body. Holluk, with its high rate of absorption, eliminates dampness causing nappy-rash and therefore prevents both mothers and the babies from being restless and uneasy. It is also believed that holluk is also useful because it warms up the baby against common cold. When compared to baby nappy, holluk is a pure example of self devotion in terms of its difficult and time-consuming preparation.

The aim of wrapping the baby in holluk comes from the idea that baby can get strength from the soil and adapt himself to the nature. However, if it is not burned before use, it can lead to fatal infections, especially tetanus, due to microorganisms living in the soil. In a study made by Özen & Özgör (2006), it was reported that every two of the three children wrapped in holluk and brought to hospital due to severe infection caused by different pathogenesis died of tetanus or Eschericaciolisepsia.

**Waiting for some time to start to breastfeed the baby**

The study of Bölükbaş et al. (2009) indicated that nearly one fifth of Turkish mothers start breastfeeding their babies late. A vast majority of the mothers in Turkey breastfeed their babies. Traditionally, however, there are very different starting times for breastfeeding such as after 1-8 hrs, 1 day, 1 week after birth or 3 or 5 azans (a kind of call to prayer made five times a day). There are different opinions within the society about feeding the newborn. Clinical guides emphasize that supplement food is not needed even if the newborn cannot be fed adequately for 24-48 hrs but in cases of severe illnesses of mothers and babies supplementary food may be required together with breastfeeding. This is recommended in order to prevent insufficient breastfeeding and compensating this through supplementary food in early stages.

It is stated in the literature that breastfeeding the baby right after birth plays a vital role in secretion of milk from mammary glands and in the continuity of breastfeeding. Starting to breastfeed late may decrease lactation and duration of breastfeeding of mothers and may hinder development of the emotional bond between mother and baby in the early period. With premature babies with low birth weight, late breastfeeding can increase the risk of hypoglycemia and hypothermia, causes of early neonatal death.

A randomized controlled study of Garcia et al. (2011) with Indian mothers with newborn babies revealed no correlation between breastfeeding and neonatal mortality within the 1st hour and 12th hour of birth but it was demonstrated that breastfeeding applied later than within the first 12 hrs due to various reasons may increase neonatal mortality.

In Turkey, the first foods given to babies after birth differ, too. Sugared water/fruit juice, baby food/ground rice, zemzem water (water believed to be sacred for Muslims and to spring around Mecca), dadak (bread dipped into tea), honey, sweetened fruit juice are given to the newborns in Turkey after hodjas’ (muslim priests) prayers pleading for the baby a religious and gentle and kind life. These foods given to the babies affect breastfeeding negatively. Literature points out that giving prelacteal foods to the newborn before colostrum may cause allergy, diarrhea and other infections.

**Newborn jaundice**

The highest rate of use of various traditional treatment methods against jaundice emerged in the
study of Geçkil et al. (2009) (89.5%)\textsuperscript{40}. These practices were as the following: putting a yellow cover on the baby’s face, using yellow objects (gold, yellow beads, yellow clothes), stopping breastfeeding, cutting the forehead, upper lips, or lower part of tongue for a little bleeding, prayers of hodjas and bathing the babies with water ornamented with golden objects\textsuperscript{8-12,16,34,40,41}.

In a study conducted to explore the same issue in Iran, it was reported that mothers, in order to treat the newborn jaundice, stop breastfeeding, and do not give colostrum - a yellowish and thin fluid\textsuperscript{42}. Dressing the baby with yellow clothes is not recommended because it may prevent the mothers from detecting baby’s yellowish discoloration. The practice of cutting the forehead, lips or the lower part of tongue is dangerous as it may lead to infection\textsuperscript{34,43}.

Another practice is doing nothing but waiting so that the jaundice will heal spontaneously without seeing doctor. Sreramardeedy et al. (2006) found out that 2.7% of the mothers do so\textsuperscript{44}. This practice is accepted dangerous because it delays the treatment of newborn jaundice and causes kernicterus and even death.

Making the forties

The frequency of the practice of making the forties in Turkey was found to be the highest (73.7%) in the study of Çetinkaya et al. (2008)\textsuperscript{12}. In the Turkish society, as part of a tradition, mothers and their babies are not allowed to go out for forty days and the babies are not shown to strangers. In addition, the newborn is bathed on either the 3\textsuperscript{rd}, or the 20\textsuperscript{th}, or the 40\textsuperscript{th} day following birth. It is believed that babies become stronger and are saved from evil spirits when mothers and their babies have a bath at the end of the 40\textsuperscript{th} day. Although it is thought that this belief may provide a psychological relief, waiting for bath as long as for 40 days may cause infections. Similar practices are seen in Chinese, Indian and Iranian societies, too and mothers and their babies are not allowed to go out before the ritual of forties is held\textsuperscript{15}.

There are also other practices about the first bathing of the newborn such as reading the Mevlit (a kind of praise poem for prophet Mahomet) prayer onto the bath-water, and putting a stone, fork, a piece of broom, nigella, a peel of an onion, golden ring, or 40 barley corns, 40 wheat kernels, 40 peas, 40 lentils and 40 stones and fragrant green leaves into the baby’s bathing water\textsuperscript{5, 6, 10,12,25,34}.

In the studies conducted in Turkey; it was understood that mothers’ old age, low income level and low educational status, their living places (rural vs. urban, mountainous areas, etc.), their staying with elder members of the family increase the frequency rates of using traditional newborn practices\textsuperscript{5,9,12,13}. Likewise, in the studies conducted in other countries, it was noted that high socio-educational level of mothers increased the possibility or mother’s taking the newborn diseases seriously, rejecting traditional practices, and opt for medically appropriate interventions instead\textsuperscript{44, 46, 47}.

Conclusion

Traditional practices used for the newborn have been found to have the following negative effects on their health:

1. Hypernatremia may occur due to salting the newborn.
2. Risk of tetanus may emerge because of wrapping the newborn in holluk.
3. Hypoglycemia may happen owing to starting breastfeeding late.
4. Hip dysplasia may occur as a result of tight swaddling of the newborn.
5. Kernicterus may occur due to delaying medical treatment of jaundice.
6. Despite providing psychological relief, bathing the newborn late as part of the rituals of the forties may lead to infection risks.

The current review of literature indicated that, though not widely used, traditional practices for the newborn babies are still common in the Turkish society despite the advancements in health services. The necessary interventions should be made to preserve healthy traditional practices and to terminate the harmful ones in collaboration with the Turkish society under the supervision of health authorities and institutions.

Nurses and midwives, on the other hand, should learn cultural values, modern and traditional practices used in the regions they work in, should encourage the mothers to make medically proper choices in the care of their babies and organize training programs to help mothers become aware of the outcomes and side effects of the traditional newborn practices\textsuperscript{15, 48}. Particularly, the training programs to be provided for the mothers in rural areas during prenatal and postnatal periods should be planned in a way to include wide populations and should be advertised and promoted by means of the instruments of the mass media, posters and school announcements because so that these educational projects and
campaigns can reach to wide a range of people from all walks of life. It is recommended that mothers should be warned against the widely-used harmful traditional practices before hospital discharge as part of the holistic patient care given to them.

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