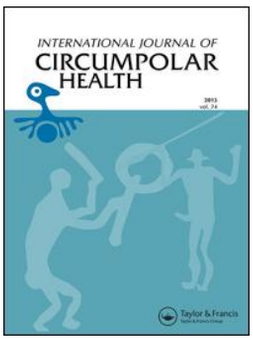

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"Catching a Child": giving birth under nomadic conditions. The methods of pre- and postnatal care of the Nenets mothers and babies

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ABSTRACT

Objectives: The term "Catching a Child" is used by the Tundra Nenets people for the process of giving birth. The author is providing a description of the preparations for giving birth on the tundra in the Nenets nomadic culture, and practice of pre- and postnatal care of mothers and babies. According to the requirements of the child-care system in Russia, the authorities consider the conditions for giving birth in nomadic dwellings in the tundra as unhealthy and unsuitable because they are not considered to meet the acceptable hygienic and safety standards found in a modern well-equipped hospital. Therefore, the official policy is to get as many indigenous Nenets women as possible to give birth in their nearest hospitals and to transport them there by helicopter.

Methods: Anthropological research (four field work stages), in-depth interviews, participant observation and questionnaires.

Results and conclusions: The Tundra Nenets women are in possession of unique knowledge of pre and postnatal care. This is a system that can be categorised as IKS – indigenous knowledge system. This research area shows the efficiency of the IKS, especially in conditions of climatic changes, which are affecting the infrastructure, transportation and general health-care system in the Arctic.

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motherhood; Tundra Nenets; indigenous knowledge system; new-born; postnatal care; utero-placentalsystem; healing substances; culture and reproduction

Introduction: main concepts, geographical and statistical data

As indicated by official statistics [1], the Nenets are not an endangered ethnic group, or in other words, the Nenets population is not at a demographic risk of decreasing.[1] The data produced from the last two Census surveys (2002 and 2010) show that there were 41,302 and 44,640 individuals identified and listed as 'Nenets', published in [1]. They thus represent the largest and increasing indigenous nomadic population in the Russian Federation [2]. However, this statement refers only to the Nenets population of Yamal (The Yamal-Nenets Autonomous Area), which is the major region in terms of the number of reindeer and people actively involved in this unique nomadic culture and way of life. There are a number of reasons for this. According to the Russian state officials, the Nenets are increasing because of the effective and progressive policies of the authorities in their region [3]. These state policies are, among others, providing medical care services, the transportation of pregnant women to their nearest hospitals for giving birth, the development of the health care system and an increasing number of available medical doctors [4, p.196–197].

However, there are other, much more significant reasons for the current stability of the Nenets population. First, the enhanced social status of being 'married' in a nomadic Nenets community. Second, large families with many children are more common for the nomadic Nenets communities, compared to settled Nenets families [5,p.23]. Third, the continuous existence of extended families with grandparents who are moving/living together with their nuclear families and immediate relatives. These traditional family and social structures help to maintain traditional customs and values in nomadic Nenets communities.

Administratively, in the Russian Federation, the Nenets are designated as living in three main regions: The Nenets Autonomous Area (NAO), The Yamal-Nenets Autonomous

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Notes to transliteration

The Transcription of Nenets (The Big Land Tundra dialect) and Russian words (both written in Cyrillic) to English (written in Latin) is done according to the «The scholarly transliteration». The common geographical names and places, family names and first names are written according to ISO 9-system (except for well-known names like Yamal and Yenisei). The original words are given in the body of text written with upper case letters. The translation to English and re-writing of all the specific determinations, words, terms, geographical and personal names from Cyrillic to Latin script is made by the author. When done by another researcher, it is specified in brackets.

[1]According to the law of the Russian Federation, the Nenets classified as "Small-numbered indigenous peoples of the North, Siberia and Far East" along with other 40 different ethnic groups.

No.	Name in Nenets language	Name in Russian *(ISO transliteration)*	Name in English	Translation *of original place name segment*
	Nenets Autonomous Area [Neneckij avtonomnyj okrug]			
1	Jabta-Sale Ja	Kaninskij poluostrov	Kanin Peninsula	long, narrow cape
2	Timenskoj Ja / Tim Vy'/ Timečkoy	Timanskaja tundra	Timan Tundra	*From* timbja *(split) referring to rocks split along shistosity; word origin from legendary* Sihirtâ *people*
3	Ŋudi Ja / Nudi Ja	Malozemel'skaja tundra	Little Land Tundra	little land
4	Ŋarka Ja	Bol'šezemel'skaja tundra	Big Land Tundra	big land
5	Jugor	Jugorskij poluostrov	Yugor Peninsula	*ambiguous origin* Yugra*: historical name of land and people between Pechora River and Urals*
6	Holŋgov ŋo	Ostrov Kolguev	Kolguyev Island	corner, hill island
7	Vajhabc'	Ostrov Vajgač	Vaygach Island	death island
	Yamal-Nenets Autonomous Area [Jamalo-Neneckij avtonomnyj okrug]			
8	Ɲorvoš rajon	Šuryškarskij rajon	Shuryshkarsky District	*(from Khanty lang.)*
9	Pe"hevyhy rajon	Priural'skij rajon	Priuralsky District	by the Urals
10	Njadei Ja	Nadymskij rajon	Nadymsky District	lichen land
11	Pur'rajon	Purovskij rajon	Purovsky District	mighty river
12	Njaryj mačy rajon	Krasnoselkupskij rajon	Krasnoselkupsky District	*(from Selkup lang.)*
13	Ja'mal	Jamalskij poluostrov	Yamal Peninsula	end of the Earth
14	Sèr ŋo	Ostrov Belyj	Bely Island	white island
15	Tasu'Java"	Tazovskij rajon	Tazovsky District	flooded river
	Taymyr Dolgan-Nenets District [Tajmyrskij Dolgano-Neneckij rajon]			
16	Tajmyr Ja	Tajmyrskij Poluostrov	Taymyr Peninsula	*ambiguous origin*

Legend:

Regional boundary

Boundary between region and associated autonomous area

District boundary

Summer pastures

Summer pastures

Summer pastures

Winter pastures

Winter pastures

Compiled by Zoia Vylka Ravna (Norwegian Inst. for Cultural Heritage Research, NIKU) and Winfried K. Dallmann (University of Tromsø)

Figure 1. Map of all the Tundra Nenets.

Figure 2. The Birch fibres used as a diaper inside of a traditional Nenets baby's cradle.

Area (YaNAO) and in Tajmyr Dolgan-Nenets District (Figure 1). In the studied regions, in Jamalkij Rajon, 12,387 Nenets live on the tundra within a nomadic culture and community [6,p.7], in the YaNAO in total 14,600 thousand people, or about 40% of the population are indigenous people leading a nomadic lifestyle [7]. In the NAO, according to the local Government, 840 Nenets reindeer people are living in the Tundra [8], but, according to the data provided by the Union of Reindeer Herders of the NAO (unpublished), the number is actually much higher – according to their calculations, up to 2500 Nenets are involved in reindeer husbandry on a daily basis. These Tundra reindeer herders are constantly moving between 500 and 1800 km per year: during the wintertime they are in forest areas and in the summertime they are on the coast of the Polar Ocean. The reindeer herds are migrating over mighty rivers such as the Ob in the YaNAO and the Pechora in the NAO twice a year, when the rivers are covered with ice during the early spring and late autumn (see map).

Medical treatment is often not immediately available for protracted periods of time or in case of emergencies. In these remote and extreme climatic environments, women are sometimes required to use their own traditional methods for the prevention and treatment of illnesses, injuries and diseases, and significantly, in caring for mothers and children. These traditional methods and knowledge developed and generated by women in some of the most isolated nomadic communities are now at risk of disappearing. However, in an era of digital technologies, ultrasound screenings and painkillers, some of these methods are still of importance today, especially under nomadic conditions, where it is not always possible to receive medical help in time. In this article, the aim is to present previously unknown data on childbearing practices and methods of pre- and postnatal care of mothers and babies derived from field work and research.

The theoretical basis for the article

In anthropology, the process of becoming a mother or the transition into motherhood is not only a physiological but also a cultural process, which is called *Matrescence* and is studied by social and cultural anthropologists since the establishing of these scientific disciplines [9,10]. In the Nenets language, the combination of words *nevtabt-s"ŋeva* (motherhood) is used for defining the process of being and becoming a mother (sojabta(s'); to give birth) and (nja"ma'(s'); to catch). In English, this term can thus be translated as 'to catch a child'.

Descriptions of traditional/indigenous medical knowledge of the Nenets people about diseases, treatment, edible plants, medicinal herbs, preparations for childbirth, supporting a birth-giving woman, maternity and obstetrics can be included in the complexity of traditional/indigenous medicine knowledge systems (hereinafter MT/IK).[2] According to Nenets researchers, the analysed information about the MT/IK of indigenous peoples which has been collected to date cannot be considered as satisfactory [11, p.46]. In general, the Nenets researchers describe birth as a complex, multistage process in which rational and sacred practices are combined. There is a lack of analytical works on the MT/IK in the scientific literature, especially on some of the methods that are attempted to be described in this article as a part of the holistic concept of MT/IK.

The previous research shows that in the past, before the establishment of the Soviet Union and the implementation of medical care services, a Nenets woman gave birth under nomadic conditions only and usually became a parent before she reached the age of 20 years [12]. She gave birth to many children, but due to the high level of infant mortality, the number of children in the Nenets families was considered as low.

Literature review

In historical literature, there are research publications about birth practices among nomadic Nenets, published mostly by male researchers, because at that time, only men could travel and do research [13,14]. One work is remarkable since it offered a very detailed sketch of many traditional Nenets rites related to women [15]. After the Russian Revolution in 1917, the Soviet government, before starting social transformations in the North, sent

[2]The simple search on "MT/IK", or "IKS" (indigenous knowledge system) in English gives about 22 million results and in the Russian language about 6 million. The search on the "Nenets IKS" gives about 35 thousand. www.google.com (visited 7.8.2018).

ethnographers to study, among other issues, family relationships and systems of pre- and postnatal childcare of the indigenous population. At that time, the first works by female researchers were published [16,17]. With the appearance of Nenets schools and, most importantly, the written Nenets language (1930s), the works of indigenous writers about pregnancy, birth and the period after birth and care of the new-born became available [11,12,18,19].

Statistical data on the Nenets fertility levels, birth and child mortality in the 20th Century are analysed by Volžanina [20,21], and more recent data on these developments in general in the Russian Federation by Baranov et al. [22]. Today the indications are clear: there is an increasing age of Nenets women at first birth and decreasing numbers of children being born [23]. The level of infant and child mortality is one of the main indicators of the health and well-being of the population [22,p.31]. Infant and child mortality rates are significantly reduced among the nomadic population due to the modernised health-care system according to Volžanina [23,p.123].

Furthermore, the control of the demographic processes is an essential role of the state [24,p.9]. Also, the mortality rates of Nenets children and mothers born in the tundra can be used to get precise statistical data and thus develop a more accurate picture of the pre- and postnatal care of indigenous Nenets women and children. However, these statistics are still somewhat problematic. The statistics produced on births and infant mortality rates among nomadic Nenets in the tundra are not as precise as those generated by the official hospital systems. The main reason for these statistical inconsistencies is that for women giving birth on the tundra, the actual birth and details of the baby's status are only officially documented at a later date, when the mother and child are transported to a hospital for postnatal care and immunisation procedures. If this does not happen, then the registration of a birth is only completed later when the mother and child eventually arrive at a settlement. If a child is stillborn or dies before being officially registered, then the details may never be recorded and registered, unless and if, the parents voluntarily decide to inform the authorities later.

Therefore, the data on the birth and infant mortality rates in hospitals are much more accurate compared to the statistics on birth rates and infant mortality rates in the tundra. Even though most Nenets women give birth in hospitals, quite a significant number of the Nenets children are to this day born in the tundra with the help of a female helper known as the 'mother of the umbilical cord'.

Methodology: Anthropological field study

In the study there are three different groups: first group is a nomadic community; second group are women from different Tundra regions (see map); and the third group are adolescents (students from boarding schools in NAO and YaNAO).

Group one

The anthropological study was conducted among members of a nomadic camp named 'Brigade No. 5'.[3] In 2015, the '5th Brigade' was one of the 16 brigades within the 'Jar-Salinskij MOP' region. The Brigade No. 5 itself comprised a total of four tents accommodating 43 people. There were approximately 10 people to a tent.

Group two

Women from different tundra regions answered on the set of questions (anthropological in-depth interviews), based on a defined and standardised criterion: they should have been raised in a Tundra Nenets nomadic community. The number of 'in-depth-interviews' with female informants from different regions was 16: they were geographically from the Kanin Peninsula, Little Land Tundra, Big Land Tundra, Nadymskij District, Purovskij District and the Yamal Tundra. The interviews were recorded during four field work periods in 2015, 2016 and 2017. The transcription and translation were done in 2018. The oldest informant was Sata Ne (The Strong Woman), also known by the name 'Big Mother' (born approx. in 1941). She gave permission to use her name in this article. Other women were born between the 1940s and 1970s.

Group three

The data on births in the tundra were collected through a questionnaire (64 respondents) from adolescents from the various reindeer herding communities of the YaNAO and NAO (born in 1998–2000). I found the questionnaire an effective research tool and a method to get data from many

[3]This is one of the basic units within a system of Nenets nomadic reindeer husbandry and collective enterprises. A typical brigade consists of several nuclear families who are not necessarily closely related. The "brigade" system of work units was created during the implementation of Soviet policy on establishing work collectives in USSR. Nowadays the term is used both for collective farms and the "SPKs" (Agricultural Production Cooperatives) or MOPs (Municipal Enterprise of Reindeer Herders).

informants during a relatively short period of time. Data from my field work material show that, of my 64 respondents, born between the years 1998 and 2000, eight respondents were born in the tundra. After the year 2000, fewer babies were born in nomadic conditions (Field work, 2015). There are different reasons for this. The main cause, according to my informants, is that the availability of helicopter transportation in the 1990s was far less than now. Today, with few exceptions, almost everyone gives birth in the hospitals' maternity units. In the Brigade No. 5, in one case, the granddaughter of Sata Ne gave birth to twins in 2010. Then T. and M. (her daughters-in-law) took the responsibility for the preparation, birth and postpartum care of these twins and their mother.

The statements made by previous researchers about the decreasing number of children and the increasing age of women giving birth for the first time is also confirmed by my field studies. The four interviewed women in the Brigade No. 5 (three of them were daughters-in-law of Sata Ne) having become a parent at the ages of 18, 24, 27 and 29–30. This last woman's first male child died in the hospital and she did not specify exactly when he was born. She was reluctant to talk about the death of this child.

Ethical rules and indigenous research ethics

The research was conducted according to the general principles found in *The Guidelines for Research Ethics in the social sciences, law and the humanities* (2006, new revised edition in 2016) published by The National Committee for Research Ethics in the Social Sciences and the Humanities (NESH), Norway. I also adhered to Indigenous Research Ethics, as detailed in §3 of [25, p.22]. A written consent form was signed by all respondents and the featured subjects of the research who were over 16 years of age in 2015. Anonymity was provided, concerning both the names, surnames and ear-marks of the individual reindeer herders and, in some cases, the names of private herding enterprises.

Before 'Catching a Child'

After her marriage, a Nenets woman usually moves from her own home to live with the family of her husband. This change happens immediately after the wedding. Her new married status now requires her to focus and prepare exclusively on her role as a mother-to-be. When she becomes pregnant, then people may comment: Naceky' jad"ma tanja" (there are traces of a child here). Before and after she becomes pregnant, she must follow the many taboos Hèvy/Kivy (prohibition) which were created by women themselves, according to informants, basically to protect themselves from the bad beings (Interview 12). There is no place to get into a discussion on these existing taboos in this article, but these are observed in all the Nenets tundra communities and are also described as a system of the rules, particularly for education of girls, described by Susoj [26,p.40].

Briefly summarised, there is not much modern medical assistance available to a woman, neither during the preparations for giving birth, or during the process of giving birth, except one woman-helper. As one Nenets woman, educated as a professional and qualified nurse, told me:

> *'… In the traditional delivery there is not much help for her. She is only helped when a child is born'. (Interview 13).*

At the same time, despite the little help that she does get, the assistance she receives is valuable and practical.

Preparations for birth are part of the traditional/indigenous medicine knowledge systems (MT/IK) of the Nenets. As suggested previously, the customs and beliefs of Nenets women who assist in prenatal, child birth and postnatal care on the tundra, can be observed and defined as practising two distinct types of help, the 'rational' and 'visible' and the 'sacred' and 'invisible' [27]. At this stage the help of the visible helpers is invaluable. The expectant mother's immediate and/or extended family works in co-operation to help prepare the expectant mother for birth and to 'catch a child'. During pregnancy, three main helpers are active: the future father, the children from the wider community/brigade, especially the girls and elder women. They help by making the necessary requirements, such as a cradle, clothing, collecting and drying the moss (Latin: *Sphagnum*; Nenets: *Njarco*) that is used as diapers for the expected baby, collecting and drying of medicinal herbs/plants and different objects for spiritual cleansing. Since the aim of this article is to show the childbearing practices and methods of birth, I omit the preparations, such as creation of the cradle and sewing of clothing.

Moss (Lat. *Sphagnum)*

The first custom, that is common for all groups of nomadic Nenets, is collecting and drying the moss that is used for making diapers, in addition to being used for other practical purposes.

The *Sphagnum hyaline* or cells of the moss can hold 16–25 times their dry weight of water [28], which indicates that *Sphagnum* mosses have a very high adsorption ability [29] and as such can be used as a good sustainable and organic alternative to the use of manufactured, synthetic diapers. In addition, 10–30% of *Sphagnum* dry mass

comprises uronic acids which are known to possess antioxidative properties [30]. Flavonoids (plant compounds that are found in almost all fruits and vegetables) in *Sphagnum* have also been shown to have antibacterial effects against bacteria like *Enterobacter cloaceae, E. aerogenes* and *Pseudomonas aeruginosa* [31]. Sámi mothers in Scandinavia have used *Sphagnum* moss as 'diapers' for their children, as reported first by Linné [32].

As part of the traditional Nenets cultural belief systems, a pregnant woman should not make any preparations for the child before birth; an older relative, more often a grandmother, should do this. The work and preparations should not be seen by others in the camp, especially not by the men, because these types of preparations for birth are only suitable and appropriate for women's knowledge and thus Hèvy/Kivy (prohibition) for men. Therefore, the women and girls collect as much as possible of the *Sphagnum* moss (Njarco) themselves and then it is dried in the sun some distance away from the camp. Another explanation, more practical, is that the area, where the moss is drying, will not be disturbed by children and reindeer, who are often moving around in the immediate vicinity of the camp. One of the respondents explained the process of preparation of the *Sphagnum* moss:

> *We [older kids] picked up and dried this moss. My mother showed us how to dry it. It can be found in different types and colors, this Sphagnum. The one with long 'hair' is called a 'crow moss'. And there is another one, slightly shorter, which usually grows in a not very marshy place. Our mom looked at the form [of the moss] at first and then showed [us] in what areas to collect it. It is collected simply by hand; it is very easy to get it out of that environment. Then the moss should be turned upside down. The root system must dry out on the hummocks. We usually collected it during the dry period, while there is no rain, and the sun is shining. We collected a lot of it. This material was used not only in the cradle; it was also used for many other purposes*. (Interview 5).

The Nenets women used to dry the moss for about three days. Then all of it was collected in big bags. Since the season for collecting the moss is short, only a few weeks during the summer, all the children and women in the camp were working together to gather it. However, only the women and mothers were involved in packing the moss. The same informant explained this practise as follows:

> *We took big bags, put all the dried moss into them and brought it into the tent. And then there was the work for a woman. Such laborious work! My mother did it always herself, she tamped and packed it into these sewed bags. To get this hard, like sports mats, she stuffed it. We need large amounts of this material. In addition, it lasts longer if it's tamped in bags. Usually, it did not turn out to be very weighty. It's just become a gigantic size, but the mass in total is only about 8 to 10 kg*. (Interview 5).

In general, one family usually needed about two or three such bags because it was also used for other purposes and all year round. In addition to the previously mentioned uses, the moss was also used for drying the household utensils; the dishes were wiped with moss after they were cleaned. The moss is also used as an antiseptic and for general hygienic purposes. Since the nomadic Nenets are on the move all the time, one of the collected bags was left behind, and stored in one of the sledges that are reserved for the next season. Because the nomadic Nenets family will return along the same route before the following year's summer, they will be able to use the previously stored moss. At the beginning of the summer, there will be no fresh *Sphagnum* available; therefore, the Nenets have developed a logistical solution to this problem.

Some of the *Sphagnum* is also ground into a powder. This powdered moss becomes a necessity, as in this form it is used as a talcum powder. In addition to the *Sphagnum*, the Nenets also used dry birch wood (Figure 2). It should be a special type, from an older birch tree, and only inside compounds are used. By using a sharp knife woman cut some thin and soft pieces from a dried tree. Then the mothers will put reindeer hair that grows under the neck of the reindeer over these wood chips.

Medicinal herbs/plants and healing substances

The healing substances can be divided into three types: plants and herbs, including berries, lichens and mosses and different organs of animals and birds. According to Susoj, the Nenets women use different types of plants for medicinal purposes [26, p.19]. Some of these are also used during the pre- and postnatal stages: Birch (*Bétula*), larch (*Lárix), Rhododendron tomentosum* (*Ledum palustre* L.) and juniper (*Juniperus sibirica*) among others [26,33]. Most of the plants were and are used as disinfectants, as tea and as an addition to tea for medicinal purposes, some of them are used against insects and some for the treatment of rheumatism.

However, the main plant used as a medicine is a mushroom, known as tjunjac' (n) or chaga [čaga] (Latin: *Inonotus obliquus*). It is a medical mushroom that indigenous peoples in the Artic often use for different purposes. The useful properties and qualities of chaga are mostly described in medical literature, for instance, in [34]. However, the usage of the chaga mushroom by the Nenets as a historically traditional

medicine has not been described in detailed, analytical anthropological works to date.

The following description is based on the concept of the Nenets MT/IK. The Nenets women explained the qualities of this traditional medicine, based on their own experience. The chaga was only picked during the winter and early spring in forest areas because there is a specific place where the mushroom grows and can be found. Women and children of preschool age, usually with the help of an axe or sometimes a big knife, cut the chaga from the tree and collect it in big sacks. Then it was packed in sledges and used for the rest of the year. One of the informants told me about the gathering of the chaga and how she gathered it during the winter season:

> *[I] was four or five. I took a big bag, my little hatchet and went to a forest nearby. If I could not get it [the chaga] myself, because it was too high, I pestered my uncles to do it for me. To avoid that I went too far, other adults or parents said to me that a bear with cubs was seen, they might be dangerous. I did not see a single bear then. Apparently, they invented it. At a time, when my little skis were packed away, I took my father's skis… A chaga was then used for tea. When someone was sick, I remember, they brewed a strong tea from chaga and let the sick [person] drink it*. (Interview 4).

Chaga is also used by Nenets men in the production of different handicraft items, as well as for healing from whooping cough [35,p.806]. The way to prepare the chaga depends on the usage: to make a drink it is mixed with clean boiling water; to use it for the cleansing or washing body, the chaga is mixed with some pieces of the embers and cooled down to the comfort temperature.

The process of giving birth: practices of the Tundra Nenets

In the scientific literature and in the notes of travellers it is often noted that the Nenets isolated a future mother in a special tent before the birth of a baby [15]. According to the recollections of the respondents, it was a long time ago, and this would only be the case if the husband had several wives living in different tents (Field work, 2015). Polygamy is still practised in adherence to traditional norms [36,p.229]. However, polygamy in Nenets culture is not the subject of this article and as a research subject could only be adequately addressed in a specific article based on detailed research on the issue. Nevertheless, my research did confirm that the practise of polygamy continues in nomadic Nenets culture, according to my Nenets informants (Interview 21).

Nomadic Nenets may also give birth on ordinary transport sledges, which would then be destroyed because of traditional beliefs. There are special rituals that follow the labour and birth of a baby on sledges: a man/a father should, on the first day of his wife's labour, make a sacrifice of a reindeer and later, after the birth is finished and the sledges are burned, the skull and insides of the sacrificed reindeer should be placed at the specific location where the woman gave birth to her child [19]. For more details about the sacred beings and the gods of the Nenets, see the comprehensive work of researcher Leonid Lar [37].

However, most of the births take place in an ordinary nomadic dwelling, the mya tent.

Usually, at the first sign of the labour pains, Sojavtavamba pja (the birth begins), all the people are expelled from the tent, leaving only the expectant mother and an older woman Sju'nebja (Mother of the Umbilical Cord). This is usually a woman of status njaromy (a spiritually pure woman who can no longer have children), and she cares for the pregnant woman during childbirth (Field work, 2015). As a conclusion of my own research, I have to disagree that a woman of the status of a njaromy is someone who is seen as being somewhere between a male and female as proposed by [38,p.750]. In my opinion, wisdom and worldly experience, as well as the sacred knowledge of an older woman, inaccessible to the young, gave her the right to be a midwife or 'umbilical cord mother' and that this social status and role within traditional Nenets culture is uniquely female.

The future mother will try as far as she is able to be self-reliant, but she knows that help is available, when and if she really needs it. There will always be helpers present and available, some of them are visible, human helpers and some are the invisible, sacred beings. There are several sacred female helpers present: Ja nebja (the mother of earth) and Tu hada (an old woman, the protector of fire). Then, the two visible beings are the little doll Mâd Puhuča (owner of the tent). And there is a real person, usually an elderly woman, the midwife. All together, we can talk about four 'females' that are taking care of the woman and the new human being. This suggests that not just mortal men, but male sacred beings/spirits are specifically excluded from the process of giving birth/experience/responsibility and activities.

In other cultures, female helpers have different names, but they also should have the same unique qualities and life experience. For instance, the Sami name for a midwife is 'ćalbmeeadni' (the eye mother) [39,p.8]. One explanation of this notion is that she (the eye mother) is the one who sees most of all [39]. Based on my research that this implies that she has the power to see the things, objects and processes that are invisible to 'ordinary' people.

The process of giving birth may sometimes last for many hours or days. In such extreme conditions on the tundra, where only the thin tent walls made from reindeer skins are protecting a pregnant woman in labour from, the Nenets people have developed a set of rules for behaving during the process of giving birth.

Nenets women do not have a habit of complaining about pain, they cannot allow themselves to ask for help, shout, scream or demand any assistance. They usually give birth on their knees, facing the walls of the tent during the labour. When the child is coming, then she should turn, so she and the child see the fire, which symbolises the life itself. She is sitting up on her knees with her back straight, facing the fire, and the child is then turned to face the fire.

Hopefully, with the help of the visible and invisible helpers, the birth will go well. At the same time, the future mother is also preparing herself, as much as possible, both physically, but also emotionally, before going into labour and giving birth. As one of the informants, a Nenets professional formally trained and qualified as a midwife, told me:

> *Once, one of the women began to give birth unexpectedly quickly. I worked as a medical assistant then. She started to give birth in the tundra, where nothing [was prepared], no firewood, nothing. She says: Let me give birth in the traditional way. I replied: I didn't learn how to assist in the traditional way. I have never seen it, you know. Let's try to give birth as they give birth at the hospitals. It turns out to be that she had already tied a rope to the poles [inside of the tent]. Well, I did not carefully consider the rope, maybe it was a special one, made from reindeer sinews. Well, it's short, tied to only two poles. She holds it with both hands, and squats. Her body is covered with an everyday Âguška (a women's winter coat made from reindeer skins). She has also prepared a bowl with boiled water and a bowl with chaga. The reindeer sinews for tying the umbilical cord was also there. The navel will be treated also with the same chaga water.* (Interview 13).

This birth went well. Right after she gave birth to her child, she sat on her knees and under her she put the same type of *Sphagnum* moss as she had picked and dried for the cradle. According to Linné, the Sámi women also used the *Sphagnum* moss as pads [32].

Traditional practices in postnatal care

There are a few practices that are developed by the Tundra Nenets that I was told about during the in-depth interviews. The first one can be described as *a special position after the birth* and the second I called as the *postnatal walking tradition*. As one of the informants explained to me about the first practise:

> *…And she sits, tucking her legs up into her belly, not stretching, and squeezing. This way the uterus shrinks more quickly. Well, they do not say that themselves, because they do not know, but that was what was happening. But somehow, they had tried. And by a method of trial and error, they have found out that this is the way to do it and not otherwise*. (Interview 13).

This special position was also described in another interview:

> *And you know, they [old women] told me to sit as you are now sitting. Everything is flowing there [after the birth]. It was also prohibited to eat at the common table. The food was served on the board used for the work with reindeer hides*. (Interview 8).

Usually, after childbirth, especially if the process was long and painful, the body needs rest. Some of the women are so weakened that they cannot even rise. Still, they must raise themselves and walk. Interestingly, this tradition has never been described before.

The postnatal walking tradition:

> *… immediately after childbirth, I received from the Sju'nebja (Mother of the Umbilical Cord/midwife) a stick for support and an order to walk. The Sju'nebja said: just a few, tiny steps, but you need to walk*. (Interview 8).

The Nenets custom of making mothers walk after giving birth has an explanation in western scientific medicine.

According to professor Ellen Blix (personal correspondence),[4] in Norway, before the war (WW II) it was common practise to prescribe bed rest for all women who gave birth, regardless of the severity/ease of delivery. Ellen Blix's own grandmother gave birth in the 1920s and 1930s, in a small village near Alta fjord (Northern Norway). As everybody did at that time, during the first week and up to ten days after childbirth, according to the doctor's and nurse's rules, she was obliged to spend it lying in a bed. [40, p.207].

As a mother of several children and as a busy wife, she could not afford to spend weeks in a bed. She found a solution to avoid the problem. She asked her eldest son to see if the midwife was on a daily inspection. When he, seeing the midwife, shouted to his mother, that the midwife was on the way, she immediately went back to bed. This common practise being ordered to stay in bed continued in Norway up to the end of World War II.

[4]Professor Ellen Blix is specializing in Health Sciences, the subjects of research are among others Epidemiology, Normal Birth, Fetal Monitoring and Place of Birth.

Studies have now shown that for a woman who has just given birth, lying in horizontal position increases the risk of a thrombosis. When walking, the uterus begins to contract and thus, the risk of 'blood clotting' in the small pelvis decreases, as well as the risk of postpartum inflammation – endometriosis. This inflammation of the uterus often after childbirth and abortion occurs if the process of contraction of the uterus is delayed. In modern maternity hospitals, a mother with a child, if there are no complications, will be released home after a few hours and encouraged to be as physically active as possible. I have concluded from my research, that traditional nomadic Nenets postnatal practise pre-dates western scientific medical postnatal practise by at least hundreds of years.

However, not all the births documented in my research were easy, as described in the case studies. Significantly, my Nenets informants explained difficult and protracted births, in addition to other, physical problems in giving birth, as being caused by broken taboos and adultery. In such situations, a sju'nebja or mother-in-law carried out of a tent a belt or ties for men's shoes, on which the husband tied knots, corresponding to the number of his infidelities. After that ritual was completed, the same belt was given to the woman in childbirth, so that she confessed infidelity too, tying the nodules. This tradition is also described in historical literature, for instance by [41]. Particularly experienced sju'nebja can change the position of the baby inside in the womb. They also use the technique of acupuncture [15,p.23]. This is also confirmed by [11].

After 'Catching a Child'

When a baby is born, the Nenets say: *Syurmbăda ŋătsekem' nja"măva"*(We managed to catch the running child). Generally, the methods of helping the mother postnatally can be divided into three categories: physical, psychological and spiritual. For successful delivery, as well as postnatal development of the child, among the methods is the ritual of cleansing. According to Nenets tradition, at this postnatal stage, the child and mother do not belong to the 'this' world until they have passed the 'nibtarava/niptarava' (The purification of the nomadic woman). Nibtarava is a process, where the Nenets women are using smouldering embers, the fat of a wild reindeer, twisted and rolled up with a little bit of fur to purify the pregnant woman (Field work, 2015, Interview 5). They can also use the fur of an otter, polar fox and beaver.

The 'nibtarava' is also the 'ball' of fur and fat which is then laid on the burning fire by the older woman. And over the trickle of smoke which then rises, the cleansed person must perform special words for purification. While she breathes over this fire, she says: 'Kyv-kyv'. These are not spelling, but the words of cleansing. Then the female helper will completely fumigate the pregnant woman's body, legs and face. After this procedure is completed, she will make a special mix of chaga (Field work, 2015). The informant explained this process as follows:

> *We mix the chaga with boiling water, then this liquid is cooled to approx. 36 degrees. Then we washed this mix all over her face, hands and body. The remaining chaga mix we splash on the hot coals of the fire three times. It turns into our steam bath or sauna, for the Nenets. This is one of the serious rituals. After this ritual, we dress everything clean, naturally*. (Interview 5).

After this, the elder woman performs the same ritual again: she fumigates the baby, the cradle, all the objects that the woman used, her sledges and all the people in her tent, who return after the birth is finished.

Only after that, can the new mother get food. There is no special food prepared, except the boiled reindeer meat and the stock that was given immediately to her to drink; to learn more about the nutrition of reindeer meat read [42]. In the case of Sata Ne, she was not sure if there was any special food prepared. She was given a lot of tea; this was for lactation, then bread with butter and boiled meat. It was in 1965, when Sata Ne gave birth to her first child, a healthy boy (Field work, 2015).

Such individual physical characteristics as weight, height and size of the head circumference of the newborn, were not recorded after a baby is born on the tundra. Only upon the arrival of the mother with the child in the village, a child was measured and registered. The child may already be several months old by this time.

The food for the child was the mother's own milk. The mother usually gave the breast right after the '*nibtarava*' cleansing. For the start of the lactation, the Nenets women let the child suckle an empty breast, because the milk is usually produced on the third day after the birth. Then they breast-feed the infant for a long time, according to some sources, up to when a child becomes 5 years old. Sometimes an older and younger child are being breast-fed at the same time by the same mother. After the child was cleaned and fed, it was placed in the cradle. According to Sata Ne, she was sometimes needed to express her own breast milk, because it was too much. She raised the question herself during that interview, whether it was prohibited to do it. I could not answer that question, but I told her that in western countries the mother's milk is considered very healthy and beneficial and in some countries breast milk is collected in a special milk-bank to be used for sick babies.

After the birth of her first child, a Nenets woman will get a new name, and she will also, in return, give a new name to the different things inside the family's mya-

tent. For instance, the pole, that is now used for the cradle is called a 'pynkèj ngu' (the pole for the cradle). And the rope for the cradle gets the name 'pynkèj ine' (the rope for the cradle) (Interview 5).

The birth of a boy in the family is especially significant. In a nearby tent, a mother with scarcely hidden pride, said to me once, that she had five sons and no girls. Women, giving birth only to girls, were not as respected as those women who gave birth to boys. If a woman could not give birth at all, then her husband could take a second wife. Childlessness was considered a disgrace to the Nenets and was a punishment for one's sins or the sins of their ancestors [15]. Regarding the birth ritual on the Tundra or in the hospital, women still honour certain rituals, even though most births are nowadays taking place in medical institutions. In addition to the enhanced status of marriage, children and the role of extended families in nomadic Nenets culture; motherhood is so important for the nomadic Nenets woman, that she, from the moment she becomes a mother, will be given a new name. She will, from that moment, be named after her children. For instance, she will be called the Mother of the girl with the name Pèdavane, or the Mother of the boy with the name Khasava. The same will happen with a man, when he becomes a father (Field work, 2015).

The name for a child was never given before the birth, but he/she could already have a song dedicated to them. The child was given a temporary name, until one year old (Field work, 2015).

> *Mom, when laid down her child as probably any mother on the earth, was singing a song… His mother lulled him. In this song, all her love for this baby, she is singing with tender words. Maternal love was manifested in this song. She sang in her own language*. (Interview 5).

Sometimes, when the child is crying too much, the Mother can decide to change the name.

> *Her little son (at that time he already got name …) was crying constantly, and then Lavosoma Nebja said that he needed to be given an ancient name .. And when this name was given to him, he stopped crying. So, he got the right name that he was looking for*. (Interview 8).

The status of a woman would change again, after several subsequent births. For instance, Sata Ne, after giving birth to five children, was renamed as Njuta panoxona mèna ne (By children mature woman) or by children rich woman in the Forest Nenets traditions [43, p.232]. Another woman, M., gave life to nine children. At the age of 43, her youngest was 6 years old, while the eldest was 23 years old. M. also had two grandchildren, who were two and three years old. At her age, M. is still considered capable of becoming pregnant and successfully giving birth. But in reply to my question as to whether she would want it, she said that is not up to her to decide.

The honoured parental status of a Nenets woman continues to develop as she progresses to becoming a grandparent '*hada*'. As with M., sometimes a Nenets woman may continue to have young children and be, or become, a grandmother at the same time. According to my interviews in Yamal, the luckiest number of children for parents to have is from ten to twelve children. There is no specific or detailed evidence available of relative rates of female and male infertility among nomadic Nenets communities. In addition, there are no indicators of whether nomadic Nenets people recognise, accept or understand that men, as well as women, can be infertile.

Celebrating the Catching a Child: discussion

The birth of the child in nomadic communities is celebrated twice. Immediately after the birth of his child, and being informed of its gender, the father of the new-born will go to his reindeer herd. Then he slaughters a young female reindeer if it is a girl and young ox if a boy is born. When the new-born child's part of the umbilical cord falls away, another reindeer will be sacrificed. These rituals are carried out in the belief that this will ensure that the child will grow up healthy, strong and for the speedy recovery of the mother. She is usually returned to her ordinary work approximately after one month.

My research, based on my interviews, indicates that the role of the Russian state concerning the birth, pre- and postnatal care of a nomadic Nenets population is primarily focused on providing helicopter transportation to hospitals for expectant Nenets mothers. Even though a smaller number of women are giving birth at home, in their nomadic dwellings, some Nenets children are still being born on the tundra under nomadic conditions and extreme weather and climates. In such risky nomadic environments, the importance, value and usefulness of traditional Nenets customs and beliefs, together with a historically well developed and proven system of indigenous knowledge, medicine and practise, should not be underestimated. This applies to all the pre- and postnatal stages, from the preparation customs, the birth and immediately after the birth of an infant.

The complex of traditional/indigenous medicine knowledge systems of the Nenets nomads, including their knowledge about birth practices in nomadic and extreme weather conditions should not be perceived as inferior or redundant in a modern age. But on the contrary, as something unique and valuable, because it was

created based on the experience of many generations of nomads, and thus has passed the test of time.

The unique custom of "walking after birth", when the mother's requirement to raise herself and walk after giving birth undoubtedly minimises the risk of blood clots and may on occasion save lives. Concerning the special position after the birth used by Nenets women, according to the observations of the midwives, demonstrates that in an upright squatting position, pushing down on the foetus with the assistance of gravity and using the weight of the foetus to ease the woman's effort in giving birth. It is especially important, if a woman could not stand on her own during birth, that she was tied for additional support with a strap for her armpits to the poles of the tent.

Conclusion

The practise of treatment, using the medicinal plants, described in this article, should be studied in more detail and included in educational literature. During the immediate period after the birth, when there is an increased risk of infection the usage of such materials, like *Sphagnum* moss, which has a very high absorbent ability, antioxidative properties and its antibacterial effects which have been proved by many researchers, should be studied and adapted for usage generally.

Such customs, like long-term breast feeding, of sometimes up to 5 years, contribute to the creation of a close connection between a mother and a child, as well as the development of tactile feelings and senses by the baby. Such vital tactile sensory development and associated emotions will be less probable if a baby spends most of its infancy in a cradle.

Furthermore, in connection with the long transportation times often required under nomadic conditions, it will not always be possible to get qualified and technological medical care to a woman giving birth on the tundra in time. In such eventualities, traditional knowledge and experience, accumulated over the centuries, becomes irreplaceable and may be a critical factor in avoiding illness, injury or even death. MT/IK and methods of childbirth developed by Nenets women over many generations sometimes save lives and thus should become an object of future, more detailed research.

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Special words and connotation in the text

Âguška;16
hada;22
Hèvy/Kivy;10
Ja nebja;15
Mâd Puhuča;15
Naceky' jad"ma tanja";9
Nevtabts"ŋeva;4
Nja"ma'(s');4
Njarco;9
Njaromy;14
Njuta panoxona mèna ne;22
Sju'nebja;14; 17
Sojabta(s');4
Sojavtavamba pja;14
Tjunjac' (n);12
Tu hada;15

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