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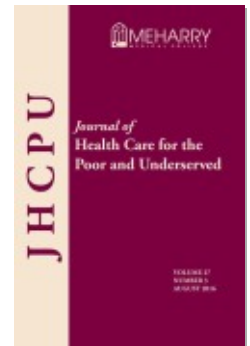
Child Health Care: Practices of a Brazilian Indigenous Population

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Child Health Care: Practices of a Brazilian Indigenous Population

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Abstract: **Purpose.** To understand the health care practices related to children from birth to five years old in an Indigenous population of the state of São Paulo, Brazil. **Design.** The theoretical and ethnographic methodological framework and the Observation-Participation-Reflection model (OPR) were used for data collection. In total, 20 families with 24 children were observed. **Results.** The belief in the healing power of teas generally overlapped the use of drugs. Herbs in the form of extracts or oils were used in the umbilical stump dressing and baths. The Indigenous people were assisted by professionals in their own communities and nearby urban areas. **Conclusion.** The care in daily life of Indigenous families was still informal and provided by women, with beliefs and customs that should be considered by health care professionals in transcultural care.

Key words: Indigenous population, child health, Indigenous health, transcultural care.

The Brazilian population is currently estimated at 201,032,714 people. Indigenous people number approximately 896,963 (0.42% of total population), distributed in 505 Indigenous lands and 305 tribes who speak more than 274 different languages and diversely express their cultures. These lands account for 12.5% of Brazilian territory, corresponding to 411,971,003 square miles.¹

Each Indigenous group has its own customs, beliefs, languages, and history of interaction with non-Indigenous people. The history of this population shows that Indigenous people were forced to leave the nomadic lifestyle to live in villages with fixed housing in a rapid and complex process of change. The different relations with the environment and non-Indigenous society due to these changes and the new lifestyle explain part of their current sociocultural constitution.^{2,3}

Indigenous populations are culturally different from the non-Indigenous and recognize themselves as being different.^{3,4} For survival, they seek to rescue and preserve their traditions, including traditional health practices, while circumstances demand their adaptation to environmental conditions and to the Brazilian health system.⁵

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The adaptation process to urbanization and access to industrialized products cause changes in the habits and customs of Indigenous people that influence their traditional health practices, including the care for children.^{3,6} Such a situation emerges from the proximity of reserves to cities or industrialized urban areas and the urbanization of the reserves themselves.

The various forms and degrees of contact between Indigenous and non-Indigenous people and the access to industrialized products,³ combined with the health service heterogeneity in each Brazilian region or state² combine to make health care practices for Indigenous children a distinct experience. Therefore, it is modified according to the cultural changes of populations or tribes.³

The complexity of the Indigenous health care practices is determined by scientific and empirical knowledge resulting from contact with non-Indigenous people, including health professionals.

Assuming that the experience of Indigenous people with non-Indigenous health professionals due to biomedical model impositions can influence the traditional health practices related to the care of Indigenous children, this research sought to answer the following question: How do Indigenous people take care of their children's health in a tribe localized in an urbanized and developed Brazilian state?

The purpose of this research was to identify the current health care practices to children from birth to five years old in an Indigenous population in the state of São Paulo, Brazil.

Literature review: The health care of American Indians. Very often, Indigenous populations have the worst sociodemographic indicators and the least good access to social and health services among all sub-populations in a country, and this is especially true in Latin America.^{7,8} There are health units inside Indigenous areas or reserves in some American regions, approximating the traditional or popular Indigenous system. However, in technical and scientific knowledge, an ethnocentric position still prevails. Thus, the acceptance and integration of Indigenous medicine in the biomedical or Western health system represents a great challenge for intercultural health, particularly in South and Central America.^{8,9}

For American Indigenous populations, the distance between biomedical and popular knowledge is increased by the geographical location of some reserves, which hinders the access of their residents to health services.^{10,11}

Geographic barriers to access to health services are common in some Brazilian states, forcing the Indigenous people to travel long distances in areas where travel is arduous. Approximately 517,400 Indigenous people, or 57.7% of the total population in the country live in reserves and 42.3% live outside Indigenous lands.¹

On the other hand, the biomedical care model demonstrates inconsistencies regarding the special attention care that considers the Indigenous culture and tradition, as neither the implications of this care nor its development in practice are clear.⁹

Studies have documented that using traditional health practices is culturally appropriate for the majority of American Indigenous tribes.^{12,13} In many of them, traditional Indigenous medicine are used before biomedical treatments and are important for family and the community. The use of traditional healers is common for physical, mental,

and spiritual problems^{9,11,12,13}, but in Brazil there are no studies describing traditional health practices and analyzing their effects.

However, Indigenous medicine—a traditional medicine based on Indigenous knowledge—is practiced in the Americas. According to the World Health Organization (WHO)¹³ definition, it “includes diverse health practices, approaches, knowledge and beliefs incorporating plant, animal and/or mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to maintain well-being, as well as to treat, diagnose or prevent illness.”^[p.1]

Cultural interventions address wellness in a holistic sense in contrast to Western biomedical approaches that focus on the absence of disease and imply mind-body separation when treating illnesses. In order to understand the benefits of culturally-focused treatment, it is necessary to recognize the Indigenous meaning of wellness, which is a harmonious relationship within the whole person, including mind, body, emotions, and spirit.^{14,15}

There is evidence that biomedical and popular treatments alternate in influencing the choices made by Indigenous and even non-Indigenous populations.^{11,12} However, the results of other studies show that biomedical services do not replace traditional healing practices among most members of North American tribes, even when they are geographically accessible.¹¹ The same applies to countries such as Chile, Bolívia, Peru, Argentina and Brazil.^{8,9,16,17}

Health programs that consider cultural differences could reduce conditions of social and cultural marginalization of Indigenous populations. The integration of Indigenous medicine in a Western medicine or non-Indigenous medical system is a great challenge, especially in Brazil and other Latin American countries^{8,9}, given the prevalence of technical and scientific knowledge.

Conceptual framework. The theoretical framework of the American anthropologist Clifford Geertz was used in the present study.¹⁸

According to this theoretical framework and the objective of this study, Indigenous health practices are able to give rise to cultural means—or, mechanisms—for their use.¹⁸ These practices can be influenced by the Indigenous lifestyle and by experience.

Intercultural contact with non-Indigenous people provides varied experiences for Indigenous people. Such experiences can be significant; interpreted and learned by Indigenous people, who may or may not use them, they eventually give life to cultural means.¹⁸

Cultural means (or, mechanisms) are linked intrinsically to culture study in a network of symbols built by human beings. A people's worldview and their environmental context may or may not influence their beliefs, habits, customs, and health practices or other parts of their lives.¹⁹

For Geertz, human beings are not largely dependant on innate behavior in the way other animals are, but instead, build their behavior socioculturally.¹⁹ In the case of Indigenous people, intercultural contact generates an acculturated behavior, with adoption of practices and customs in health care that may reflect both biomedical and traditional Indigenous medicine.

Methods

This descriptive study had its methodological basis in the ethnography of Clifford Geertz and the Observation-Participation-Reflection Model (OPR) of Madeleine Leininger²⁰ for the data collection phase. In general, ethnography enables the discovery of meanings recognized and used by individuals in their practices and representations. It aims to interpret various situations and social relations.¹⁹

The ethnographic method requires a period of residence in a given society for contact with and observation of its people, during which the researcher will collect data on different facets of social life, in this case, on child care practices.¹⁸ Hence, the use of care practices related to children's health was observed (in a participatory form and not) during residence at the Indigenous reserve.

Ethical considerations. This research was developed according to Brazilian Resolutions 196/1996 and 304/00 for studies involving human beings and Indigenous people. It was approved by Research Ethics Committee of the School of Nursing of the University of São Paulo, National Commission of Ethics in Research and National Foundation of Indigenous.

Study setting. The cultural group studied was the Indigenous population called Vanuïre Village located 13.67 miles far from the city of Tupã and 6.83 miles far from the city of Arco-Íris, in the Western region of the state of São Paulo. This reserve was chosen because of its inter-ethnic constitution, daily contact with non-Indigenous people, and location in a Brazilian state that predominantly adopts Western medicine.

Unpaved county roads pass by the reserve that is surrounded by agricultural and livestock farms. It has its own unit of health care, with nursing and dental care provided by a non-Indigenous nurse and a dentist, and an Indigenous nursing technician. There is no medical personnel, so the medical visits take place in the cities of Arco-Íris and Tupã.

Sample. The study participants were all families with children from birth up to five years old, living at the Vanuïre Village, totaling 117 (58.5% of total reserve residents) participants, living in 20 households with between three to 10 people each, and an average of 4.62 members per household.

Among the 117 individuals, 24 (20.51%) were younger than five years old. In six (30%) of the 20 households, there were children living with grandparents and uncles in the same home.

In the village, residents are grouped in extended families, which favors survival and mutual assistance in home and financial care, a common custom among Brazilian Indigenous people. The Indigenous ethnicities of Kaingang, KrenaK, Atikun, Fulniô, Caiuá, and Terena were observed.

Role of the principal investigator. The process of introducing the researcher in the community occurred primarily through contact with the local nursing staff in the days and hours of public service, after providing information about the researcher's presence in the village, her academic formation, and research.

Data collection. Data were collected during the year 2013 through observation of the daily life of the families participating in the study and the Indigenous people in general, writing objective reports in a field diary.

The health facility at the village served as a reference point during the researcher's

stay at the community. It was possible to observe and have contact with the village routine and the health service, keeping the distance necessary at this stage. The health team helped to find the location of houses (none of the research authors was health team member), some of them scattered within the reserve area. There was no need to involve a translator because the residents spoke Portuguese, the official language in Brazil. In some households, the residents were fluent in Indigenous languages, too.

The first phase of the OPR Model started after the researcher's presence became routine. In this observation phase, she sought to sharpen her vision and listening skills, evolving from general perceptions of the culture to some specific characteristics of childcare. The daily life of the residents was observed, as was the health care provided by the nursing staff. Sometimes, this step occurred in the period of introduction in the field, with a duration of 30 days. Initially, the researcher maintained an attitude of detachment, as the local people gradually noticed her presence in the reserve.

The second phase involved participant observation using a semi-structured guide; whenever necessary, points were clarified with women in the reserve. In this phase, the main illnesses presented by children were observed, as were the type of treatment used, who performed it, and what determined the choice of the type of therapy.

The researcher began to participate in some home visits with the health team of the reserve, interacting with the Indigenous people. The participation continued until the end of data collection, evolving to an increasing interaction, without losing sight of the research focus, and the condition of being a researcher. This phase lasted approximately 60 days.

The effective participation of the researcher in the village occurred with her official introduction to women. Such activities were essential to foster more interaction with the study informants, in order to reduce the strangeness of the Indigenous people in relation to the researcher, break some interpersonal barriers, and help with the comprehension of socio-cultural aspects related to child health care.

The third phase, called Reflection, was part of the whole observation. It involved reflection about the ideas or observed phenomena that could help the researcher to focus on the contextual elements of the research.²⁰

Data analysis. Initially the field diary data were transcribed, reorganized, read twice, and the themes were grouped by similarities in "major themes" by the first or principal author, according to the research objective. Then, the contents of each theme were read and interpreted, in an effort to uncover the meanings and symbols that made up child health care practices, and subsequently were regrouped into two anthropological categories.^{18,19}

The kind of analysis employed here involved discovering the conceptual structures that inform the subjects' actions and the conduction of a categorization and reflection system to interpret the information obtained. Methodologically, the comprehension aims to perceive the symbolic forms used by the Indigenous people through an ongoing alternation between Indigenous ideas and those used by anthropologists to achieve their scientific purposes of building anthropological categories.¹⁹

Results

The following anthropological categories emerged from data analysis: *Interculturality in children's therapeutic practices* and *Infant practices and rituals of daily care and hygiene*. No differences were found among the care practices of the observed ethnic groups (Kaingang, KrenaK, Atikun, Fulniô, Caiuá, and Terena).

Interculturality in children's therapeutic practices. There were no formal healers in the reserve because of the prevailing Evangelical or Christian religions, which oppose faith healing or spiritualist practices. Although rituals or sympathies related to religion for curing diseases were not observed, they were alive in the memories of grandmothers and great-grandmothers.

Women often went with their sons to the town of Arco-Íris for medical care. The health facility of the city is a reference for doctor visits. They used the community car or public transportation to get there.

The following procedures were carried out at the reserve: dressings, blood pressure measurement, blood glucose control, inhalations, vaccination, monthly antropometric measurement of children under five years old, weekly supplementation with ferrous sulfate for children under two years old, breastfeeding support, and introduction of complementary food orientation, especially for mothers with children at nutritional risk.

Worms in general, diarrhea, flu or colds, anemia, constipation, allergies with rashes, fever, and urinary tract infection were among the diseases or health problems presented by the observed children.

The Indigenous people related the occurrence of anemia to sugar consumption and defined it as a hereditary disease (a genetic disorder) or of intrauterine causes (caused by the women's sugar consumption in the prenatal period). It could be prevented with restricted consumption of sugar and by feeding the child with cassava soup as a treatment. They opposed using ferrous sulfate syrup because it is a drug, and instead preferring foods rich in iron. All the observed families believed industrialized remedies were too strong for children because of their side or adverse effects.

Despite this, every week at the health facility, 11 children between six and 30 months of age received ferrous sulfate supplementation together with vermifuges from allopathic origin administered by the nursing staff to ensure treatment completion.

Health professionals provided only medications such as those for cough for use at home, but families also used teas as a therapeutic option, with the view that teas are good because they are natural. Biomedical care was chosen only in the occurrence of intestinal cramps or tonsillitis because they cause pain or when others disease symptoms did not improve with the use of homemade herbal teas.

Flu was the most frequent adverse occurrence among the observed children. They were still considered healthy by their family members, who believed this was a common alteration caused by contact with drizzle or cold weather.

Chamomile or *Matricaria recutita* L. and anise or *Pimpinella anisum* teas were used for bellyache; *Mikania glomerata*, *Mentha pulegium*, *Cymbopogon citratus* and *Mentha* sp teas for colds and flu; *Hypericum perforatum* teas for infection; pomegranate peel and *Ocimum basilicum* L for tonsillitis; *Myroxylon peruiferum*, and *Solidago marginella* DC teas for coughs. All theses were Indigenous remedies used in the tea form.

A homemade beet syrup was also used for coughs. The beetroot was cut and exposed to the night fog on the residence roof, on a plate with sugar, following the myth that the night fog made the syrup.

The teas, used as tranquilizer for infant colic or colds and flus, were prepared with honey produced by beekeeping in the reserve. The other teas had little or no added sugar, regardless of children's age, according to the teachings of older Indigenous people.

Women prepared most herbal mixtures used for healing only some beverages were prepared by men, who also collected the herbs at home or in the woods. Only the grandparents cultivated the plants.

Herbal immersion baths were used mainly for colds or flus with *Myroxylon peruiferum* or *Solidago marginella* DC. As these herbs relieve the discomfort caused by colds, they were known for their ability to "tirar a gripe da cabeça" (literally, pluck flu from the head).

Baths with the *Bidens pilosa* herb were a therapeutic option for neonatal jaundice and the *Ocimum basilicum* L herb was used for fever. Immersion in cold water was also part of the Indigenous therapeutic itinerary to cure fever.

Infant rituals and practices of daily care and hygiene. During the observations of social environments and homes, the existence of mutual assistance relationships in activities involving the care of children and exchange of consumption goods became clear. Some even contributed to the family income by developing activities for economic purposes. Maternal and fraternal support with childcare, cooking, and breastfeeding was an inter-ethnic tradition.

Newborn care was performed by grandmothers or great-grandmothers after hospital discharge because the births occurred at hospitals located at 13.67 miles from the reserve. The experience of great-grandmothers was different because they gave birth in the traditional Indigenous way in their households assisted by traditional midwives, who cared for the newborns.

Regarding children's hygiene practices, there were some myths and beliefs among families, especially about baths of newborns, infants, and older children. They believed cold showers made the children stronger, transforming them into warriors when becoming adults. However, the newborns' first baths were given by their grandmothers with warm water after hospital discharge. After the babies were eight months of age, they started having baths with cold water.

After hospital discharge, grandmothers dressed the umbilical stump of newborns after baths, with products such as ethyl alcohol, and copaiba, castor, or cotton oils. The cotton seeds were roasted and tamped until becoming powder, and then mixed with mineral oil. Alternately, the castor bean fruit was first crumpled to obtain the oil, which was then cooked. Some women saw ethyl alcohol as a non-Indigenous product and a cause of dryness of the umbilical stump. The use of oils was part of the village traditions, and castor oil was considered better than ethyl alcohol.

Discussion

The observed Indigenous families were extensive in following a tradition that is common in various Indigenous population of different ethnicities.^{3,21} This facilitates the

occurrence and maintenance of family care and a traditional therapeutic system in which women supported each other in the care for children.

Women practiced ancient art of traditional healing when children of their family had any signs of illness, providing culturally specific holistic healing and health care, as in other Indigenous tribes.^{22,23,24}

The herbal tea or mixes for oral intake are commonly used by women of the observed families, followed by immersion baths and oils for topical use. These traditional healing practices differ among Indigenous tribes. For example, in Peruvian and Ecuadorian tribes it is common to use herbal baths.^{16,25}

The traditional healing or care practices of Indigenous women, their arts and their gifts are different from those of non-Indigenous medicine because of distinct worldviews related to health, illness, and therapy practices,²² although the use of plant teas and homemade remedies for children with symptoms or signs indicative of disease is also common in other populations from different cultures. Teas were offered for children under six months, despite the recommendations of health professionals concerning the importance of exclusive breastfeeding for this age group.^{26,27,28,29,30}

In the reserve, men were responsible for harvesting herbs in the woods, but women made most of the homemade remedies and performed others types of childcare. In some Brazilian tribes, the knowledge and practice of traditional Indigenous medicine is shared among men and women, as in other countries.³¹

Ideas taken as truths in the Indigenous community emerge from common sense understood as a cultural system—i.e., from a body of beliefs and judgments. All those who believed in this cultural system had full conviction of its value and validity.¹⁹ The wisdom of Indigenous people is manifested in ways of knowing, seeing, and thinking that are passed down orally from generation to generation.²³

In addition to the belief in herbal teas in the village, there were also symbolic conceptions about the temperature of the food ingested and the immersion baths. According to what can be called the “theory of hot and cold diseases,” in order to maintain health there should be balance in the internal body temperature. Hence, for warm states or diseases, one should ingest cold food or take cold baths, and for cold diseases, the opposite, by ingesting hot food or taking hot baths.³²

Another common practice in the village that exemplified mutual female help in childcare was the tradition of the first bath and the umbilical stump dressing. Both are typically carried out by the grandmother or great-grandmother using oils made from fruits grown in the reserve and with powers of drying and healing. This also occurs in other American Indigenous, African, and European populations. The effect of these oils was scientifically compared with the use of alcohol and human milk, and there was no increase of infection incidence, nor did the stump take longer to fall off.^{33,34,35}

The influence of professionals is perceived in treatments using vitamins and other medicines for the cure or prevention of illness, such as in the use of ferrous sulfate supplementation.

However, ferrous sulfate in the form of syrup (used in Western medicine) was a secondary option to the intake of iron-rich food, reinforcing the choice for natural products and homemade remedies used in the traditional Indigenous medicine.

The need to travel to nearby urban areas for medical or health care is a common

feature of reserves or American Indigenous villages located near urban centers.^{11,36} This situation influences children's health from birth and undergoes changes over time. A practice that was once domiciliary and performed by traditional Indigenous midwives became hospital-assisted and performed by non-Indigenous health professionals.

Generally, the researcher observed that health professionals provide assistance based on their own culture instead of understanding the cultural dimensions and movements between biomedical and holistic knowledge to change their attitudes and develop their cultural skills.³⁷

However, in the health-disease process, the Indigenous people base their actions more on significant habits, traditions, and customs than on the forms of care proposed by the biomedical health model. They also exert strong influence and show autonomy in most decisions of women, who determine the childcare trajectory. An example of this autonomy, is the use of homemade remedies as the first option, with a resort to drugs only when the expected results are not obtained. Individuals with a strong Indigenous identity are more likely to use traditional healers for health problems.¹¹

This study demonstrated the importance of conducting research with the various Indigenous populations worldwide with a cultural focus, in order to know the differences among people and adapt scientific procedures for each culture, considering the particular ethnic and racial characteristics. Human beings need care, but each culture has its own vision of health, disease, and care.²⁰

Hence, nurses and the Indigenous reality must work together to reduce disparate relative visions of health, as well as ethnocentrism, to foster the development of cultural competencies.³⁸

Intercultural health services should be created to form a network among local communities, traditional healers, and culturally sensitive biomedical professionals for Indigenous people.

Conclusions. Despite the influence of care provided by non-Indigenous health professionals in the reserve and nearby urban centers, and considering the environmental and cultural indigenous context, the practices of child health care in this Indigenous community in Brazil are still based on informal and empirical knowledge. The first practices of healing and care of children are carried out in the family context.

Family social networks had a central role in the choice of therapeutic resources during the process of sickness events.

The scientific and technical content currently used by the health system is inconsistent with Indigenous traditions and customs. Therefore, it is necessary to take action aimed at professional updating based on Indigenous cultural constructs, and consider the local reality of each tribe to promote basic care for infants and children.

In order to build differentiated strategies of care and attention in Indigenous health, it is essential to strengthen the autonomy and role of Indigenous people according to the concepts of ethnodevelopment.⁵ The construction and development of policies to promote quality of life and the adoption of sustainable solutions to enhance traditional knowledge may show the positive side of interculturalism.

Study limitations. The results of this study cannot be generalized to other Brazilian or global Indigenous populations, considering the diversity and the sociocultural and environmental specificities of these people in each region or country.

The data in this study were collected through a unique technique (observation). The use of other methods in the future could deepen and clarify more about this research theme.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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