

Alternative Therapies of the Banjar People for Children with Fevers

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Abstract

Fevers often occur in children under five years of age due to the immature formation of their immune systems. Such fevers signify that something unusual is happening in the body, often due to illness. Parents conduct various management techniques, such as medical or traditional treatments, based on their beliefs. Banjar society has a health culture known as *bapidara*, which is used to treat children with fevers presumably attributable to supernatural disturbances. This exploratory research aimed to discover what alternative therapies the Banjar people use to treat children with fevers. This qualitative study used a transcendental phenomenological design. Data collection was conducted with eight mothers who had children under the age of five using in-depth interviews. Five themes were identified based on the findings: the mothers' actions in treating children with fevers, the mothers' understanding of *bapidara* as local wisdom, the procedures for performing *bapidara*, the health progress of the children after *bapidara*, and factors that influence the choice of *bapidara* as a traditional treatment to relieve fever. This research can be used as the initial basis for cultural nursing care decisions in the development of complementary therapy for the initial treatment of children with fever at home using medicinal plants tested for their effectiveness as family-centered care.

Keywords: alternative therapies, Banjar people, children, fever

Abstrak

Terapi Alternatif Masyarakat Banjar dalam Penanganan Anak Demam. Demam sering terjadi pada anak usia di bawah usia lima tahun karena pembentukan kekebalan tubuh yang belum sempurna. Demam juga menjadi penanda sesuatu yang tidak biasa sedang terjadi di dalam tubuh, seringkali disebabkan karena adanya penyakit. Orang tua melakukan berbagai tindakan pertolongan seperti pengobatan medis ataupun tradisional berdasarkan sudut pandang kepercayaan mereka. Masyarakat Banjar memiliki budaya kesehatan yang dikenal dengan *bapidara*, yang dipercaya sebagai pengobatan untuk anak demam akibat gangguan supranatural. Penelitian eksploratif ini bertujuan untuk mengetahui terapi alternatif apa yang digunakan masyarakat Banjar untuk mengobati anak yang demam. Penelitian ini menggunakan penelitian kualitatif dengan desain transenden fenomenologis. Pengumpulan data dilakukan pada delapan ibu yang memiliki anak balita melalui wawancara mendalam. Ada lima tema yang diidentifikasi berdasarkan temuan, yaitu: tindakan ibu dalam menangani anak demam, pemahaman ibu tentang *bapidara* sebagai kearifan lokal, prosedur melakukan *bapidara*, perkembangan kesehatan anak setelah *bapidara*, dan faktor-faktor yang memengaruhi memilih *bapidara* sebagai pengobatan tradisional untuk meredakan demam. Penelitian ini dapat digunakan sebagai dasar awal keputusan asuhan keperawatan budaya dalam pengembangan ilmu pengetahuan di bidang terapi komplementer untuk penanganan pertama anak demam di rumah dengan tumbuhan obat yang sudah teruji efektivitasnya sebagai perawatan berpusat pada keluarga (family centered care).

Kata Kunci: anak, demam, masyarakat Banjar, terapi alternatif

Introduction

Children are the successors to the family, society, and state. Consequently, their physical, mental, social, and spiritual health must be considered at every stage of their growth and deve-

lopment. However, during this growth period, children often experience fevers caused by their immune systems, which are not optimally formed. In addition, one symptom that often signifies a child's illness is fever (Anggeriyane, 2019; Anggeriyane et al., 2021; Haryani et al., 2018).

Fevers generally make parents anxious and afraid because they think the fever is a serious illness. Parents will be calm if the child's fever is successfully reduced, because they believe the child's illness will be cured (Krisnanto et al., 2016).

Most studies in Africa show that 80% of pediatric and adult patients visit primary care facilities with a fever, and 40% have a cough. Moreover, 20% have diarrhea. Meanwhile, regarding children under the age of five at the community level, 90% have a fever, 20–60% have a cough, and 30% have diarrhea (World Health Organization [WHO], 2013). These fevers can subside; however, in a small percentage of cases, these fevers signify serious illnesses that result in child fatalities. In the UK, an estimated 20–40% of parents report that their children experience body temperature increases yearly (National Institute for Health and Care Excellence [NICE], 2019). Based on data released by Coimbatore Medical College Hospital (CMCH), 407 cases of children with high fever were treated as outpatients on September 2022 (Sathish, 2022). The symptoms of fever in children are mainly caused by respiratory tract infections, measles, typhoid fever, and digestive tract infections. In 2022, the proportion of children under five years old worldwide with fever requiring intervention or treatment was 60–80% (WHO, 2024).

Children's health efforts are expected to reduce children's mortality. The aim of efforts to maintain children's health is to reduce child mortality and prepare a future generation for health, intelligence, and wellness. Children's, under five years old, mortality rates, infant mortality rates, and neonatal mortality rates all measure mortality specific to children (Dinas Kesehatan Kota Prabumulih, 2019). The strategic plan target achievement of indicators for children under five years of age in health services was 75% in 2022. In reality, the achievement of indicators for children under five years of age in health services was 78.3%, and South Kalimantan is one of the provinces in Indonesia that reaches

80.6%. It can be concluded that the 2022 strategic plan target has been reached, and the 2024 strategic plan will target 85% (Kementerian Kesehatan Republik Indonesia [Kemenkes RI], 2023b). A fever of unknown origin (FUO) was the third most common cause of disease for children under five years of age in 2017. This shows an increase from 2016, which was fourth place (Dinas Kesehatan Kota Banjarmasin, 2018). Recapitulated data from the Community Health Center's Integrated Childhood Illness Management (IMCI) Program from January to August 2018 show that fever ranked fourth after ear problems, nutrition, and coughing (Anggeriyane, 2022).

Some parents immediately take their children to health services upon detecting a fever. However, some parents think that fevers are normal because the symptoms will go away on their own. Others take their children to traditional medicine because they believe spirits are disturbing them. Indeed, most parents have different perspectives on dealing with a child's fever (Astutik et al., 2016; Resmi et al., 2017). However, the level of maternal knowledge varies greatly, resulting in differences in the management of fevers in children. Research results have shown that the first treatment for a child with a fever is applying a compress, taking a child to a doctor, giving the child an antipyretic medication, or doing nothing (Sudibyso et al., 2020). A mother's experiences enhance the handling of fevers, because the mother's experiences largely control a child's world. A mother's ability to care for her children is influenced by various family, social, and cultural factors (Masdiana et al., 2016).

Traditional health services can be integrated with children's health services to support promotive, preventive, curative, and rehabilitative efforts (Kemenkes RI, 2023a). Moreover, in 2018, 31.4% of households used traditional health services. In South Kalimantan, the highest proportion of households using traditional health services was 54.1%. The types of traditional health measures most frequently utilized by households are ready-made concoctions (58.4%),

homemade concoctions (17.9%), manual skills (83.3%), thinking skills (1.6%), and energy skills 1.8% (Kemenkes RI, 2019).

One of the complementary traditional medicines that the Banjar people employ for children with fever is *bapidara* (traditional treatment for fever). *Bapidara* comprises a prayer and the ritual of applying turmeric (*Curcuma Longa*) and lime to certain parts of the body, such as the forehead, palms, chest, back, and soles of the feet, with the cacak burung mark (Astutik et al., 2016). Several experimental studies and clinical trials have examined curcumin as a component of turmeric. The benefits of curcumin include antinociceptive, antiviral, anti-inflammatory, antifatigue, and antipyretic effects (Babaei et al., 2020). Asian traditional medicine has used curcumin for many years to treat a wide range of illnesses. Curcumin has a breadth of natural and pharmacological properties, according to numerous studies, and there is no evidence that the compound is poisonous (Praditya et al., 2019).

In August 2018, researchers conducted a preliminary study on mothers who had treated their children for fever. The mothers said that the Banjar people believed in modern scientific and traditional medicine as the mothers often chose between *bapidara* and modern medicine or both. If their child has typical fever symptoms, they believe that their child is disturbed by the supernatural and should be treated by *bapidara*. Health workers confirmed that most children with fever had been brought by their parents to traditional healers, both before and after further control at the community health center. This can be seen in children's orange turmeric and lime cacak burung marks.

Based on cases that have explained, an appropriate and fast treatment of children under five with fevers is necessary to avoid worse conditions, such as complications of dehydration, decreased consciousness or neurological function, febrile seizures, and even death. The *bapidara* culture of the Banjar community is

still the first alternative for mothers to treat their toddlers with fevers because they assume that supernatural beings caused their children's sicknesses, which cannot be explained medically. Therefore, this study explored Banjarese mothers' experiences with choosing alternative therapies when children have fevers.

Methods

The research purpose was to explore the Banjarese people's choice of alternative therapies when their children have an FUO. This qualitative study used a transcendental phenomenological design with purposive and snowball sampling techniques to determine the participants. Eight mothers with their children were selected based on the research objectives and criteria. Data retrieval stopped when there was no new information regarding the research theme. The individuals included in this research identified as Banjarese, lived in the North Kuin village, had children under five, had brought children with fevers for *bapidara* treatment, communicated well, had information and experience concerning the research's themes, and agreed to engage in this research.

North Kuin of Banjarmasin city, Indonesia, was the research site. From April 2018 to January 2019, data were collected through in-depth interviews and field notes. In this study, the analysis took place using structured analytic methods from Creswell (2015). The researcher clarified the verbatim transcripts obtained from the interviews (participant check) and the results of the field notes to all participants to ensure the credibility of the study's results. The researcher also maintained the data's credibility with source triangulation. Sources were triangulated by clarifying the results of transcripts and analytic results regarding traditional healers, health workers, and families living in the same house. The data collection protocol was approved by the ethics committee of the University of Muhammadiyah Banjarmasin; see certificate number 144/UMB/KE/X/2018.

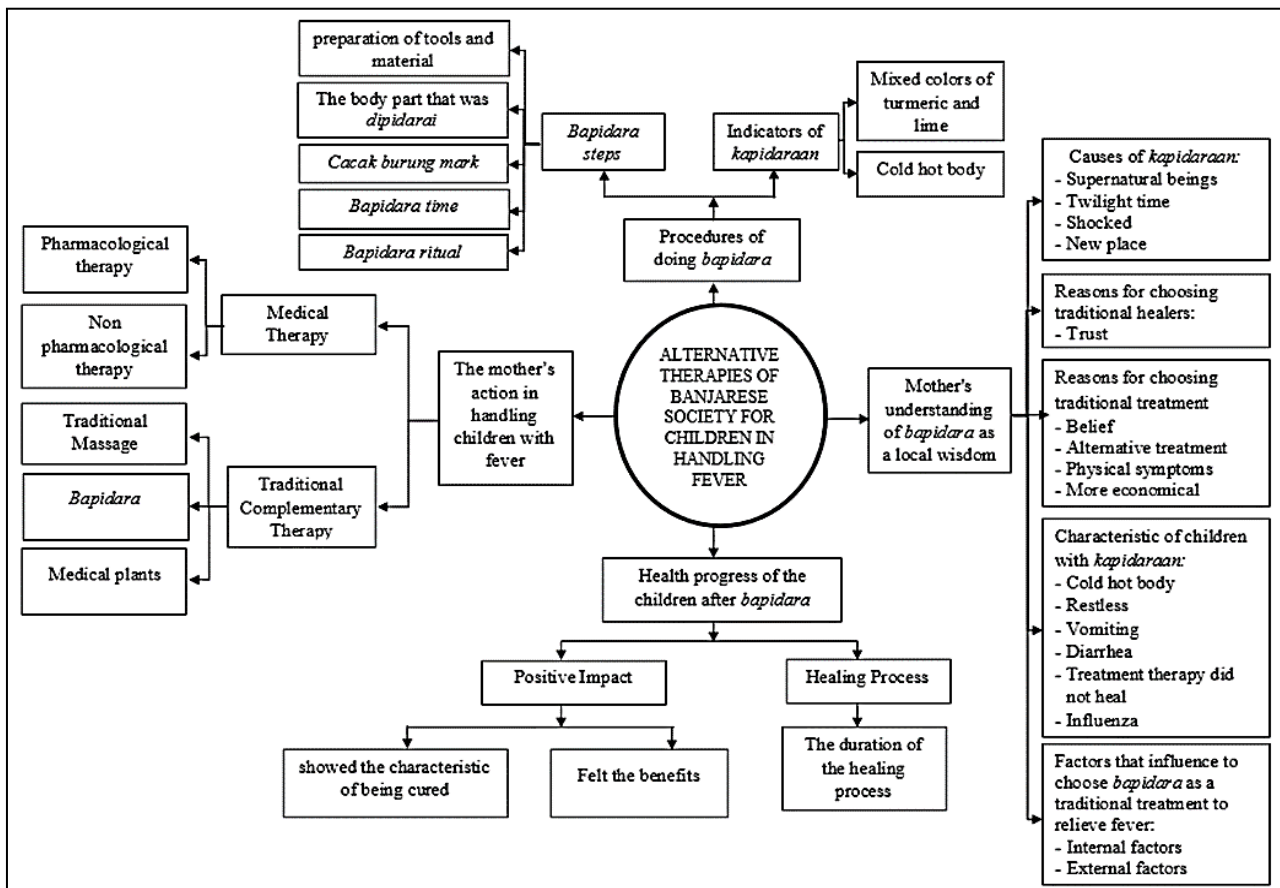


Figure 1. Themes of the Mother’s Experience with Handling Children with Fever

Results

The participants in this study included eight mothers who were at least 21 years old, had completed elementary school through junior high school, and were housewives with one to four children. Five themes were identified based on the findings: the mother’s actions in handling children with fevers, the mother’s understanding of *bapidara* as local wisdom, procedures for performing *bapidara*, the health progress of children after *bapidara*, and factors influencing the choice of *bapidara* as a traditional treatment to relieve fevers (Figure 1).

Bapidara is a unique therapy not found in other traditional treatments. The participants in this study believed that their children can be healed through *bapidara*. The classification of comple-

mentary health approaches based on the National Center for Complementary and Integrative Health (NCCIH) is derived from natural products and mind and body practices. The complementary therapy field is dynamic and constantly changes as new findings emerge. Some originate from indigenous cultures (Lindquist et al., 2018).

Nowadays, with increased living standards, the influence of the health culture has become more important because people conditionally use resources in their lives. Culture can influence people’s thinking and behavior, thereby affecting their health. Based on existing research, it is essential to comprehend the factors influencing health outcomes to more thoroughly assess the influence of health culture on health outcomes (Jia et al., 2017).

Discussion

Mothers' Actions in Handling Children with Fever. Mothers have several choices when dealing with a child with fever, namely, medical and complementary therapy. Even though medical treatment is a top priority, if parents notice no improvement in their children's health, they may take them to traditional complementary therapies, such as *bapidara*, because they believe that supernatural beings are disturbing the child or that traditional medicines are thought to lower fevers. They may also believe that their child has sprained an ankle and may use traditional massage to treat it. Participants considered *bapidara* the last alternative in the traditional management of children with fever because they thought that supernatural beings instigated their children's illnesses, the cause of which could not be explained scientifically. However, some participants immediately gave children *bapidara* procedures if certain physical symptoms appeared, such as *kapidaraan* (disturbances by supernatural beings). The results revealed a fast-healing process believed to be among the main treatments for children under five with fevers.

Parents play an important role in caring for children with fevers, especially mothers (Anggeriyane, 2022; Mora et al., 2020). A mother's role in parenting is mandatory, so children become intelligent and remain physically and mentally healthy. A mother with good knowledge and attitudes about fever can be successful in treating fevers in her child (Doloksaribu & Siburian, 2017).

Fevers can be handled by pharmacological therapies, non-pharmacological therapies, or a combination of both (Rodriguez & Martin, 2019; Wardiyah et al., 2016). Mothers tried to treat children's fever with methods of measuring it, such as using a thermometer, touching their skin, soaking their feet, fanning them, removing children's clothes, cooling the room's air, bringing their children to a doctor, or self-handling drug therapy using medicinal plants (Tafti et al.,

2017). These herbal remedies were discovered based on their personal experiences. After a home care procedure that they considered ineffective for their child, most parents consulted a doctor (Tafti et al., 2017). Cultural status, social class, economic status, and maternal education all affect how mothers handle fever (Tafti et al., 2017).

The Banjar people believe in herbal plants to treat fever in children under five using the *bapidara* method, namely, turmeric (*Curcuma Longa*). Traditional medicine is derived from knowledge, skills, and practices based on a community's pre-existing theories, beliefs, and experiences and is used to maintain health as well as to prevent, diagnose, and treat physical and mental illnesses. Traditional medicine based on local knowledge raises the standard of living for a local community's health and economy. Community access to treatment will be easier because it is adapted to the local ancestral heritage to overcome health problems if the community can optimize traditional medicine. The WHO launched its traditional medicine strategy to acknowledge the crucial role of traditional medicine around the world. This initiative integrates traditional medicine into the global healthcare discussion (Pan American Health Organization [PAHO], 2023). In 2023, the Health Assembly decided to extend the WHO Strategy on Traditional Medicine (2014–2023) by two years and requested that the director general formulate a new strategy for 2025–2034 (Cramer, 2023).

A Mother's Understanding of *Bapidara* as Local Wisdom. Culture refers to the patterned way of life, values, beliefs, norms, symbols, and practices of an individual, group, or institution that has been learned, shared, and usually passed from generation to generation (Alligood, 2017). The traditional healers who use *bapidara* are one's "mother of grandmother and grandmother." People who can heal are not careless because the criteria for traditional *bapidara* healers include older people who know the prayers said during the *bapidara* process, have

the ability for *mamidarai*, descend from previous ancestors of Banjar society, and hail from Banjar society.

Traditional healers can cure their patients using methods inherited from their ancestors (Astutik et al., 2016; Megawati et al., 2022). *Bapidara* is one way that the Banjar people have treated fevers that has been long passed from generation to generation. *Bapidara* is a customary Banjarese cure for children's fevers that are caused by disturbing hereditary occultic creatures (Resmi et al., 2017).

Participants believed that these supernatural creatures caused children aged five and under to experience fever because the children went outside at dusk, experienced a shock, or visited new places, such as a pilgrimage to a grave. Magical creatures or people invite a baby or child to play. In small children, this usually occurs due to the accidental appearance of supernatural beings when the child sees the presence of spirits somewhere, resulting in shock. For the Banjar community, there are three types of diseases: medical, psychological, and magical. Even though magical diseases concern visible signs of physical and psychological ailments, magical diseases must be treated magically using typical rituals, certain requirements (offerings, speeches), and the leadership of a *pananamba* (Nugraheny, 2021). Most parents did not know the exact causes of their child's fever—that is, whether the fever was due to *kapidaraan* or other causes. An FUO is defined as a fever that lasts more than one week, with negative examination results (Barbi et al., 2017).

Participants believed in traditional *bapidara* healers based on their experience with children recovering from fever with the aid of traditional healers. The reasons for subjects choosing traditional treatments varied. Individuals chose the traditional *bapidara* treatment because they believed that a child with a fever would recover with *bapidara*. After medical treatment and antipyretic drugs have been used, *bapidara* is an alternative treatment. Due to their previous

experience with the typical symptoms of a child's fever, subjects believed that the correct handling of it employs *bapidara*. Another reason for treating a child's fever with *bapidara* is that it is more economical. No participants disclosed the relatively lower effects of toxicity with the use of traditional medicinal plants.

The belief in the efficacy of traditional medicine, itself, is because these drugs have been used from generation to generation. Although contemporary beliefs have eroded trust in traditional medicine, it survives today because of the belief in the positive effects of traditional medicines and medicines derived from natural ingredients. In addition, the reasons for supporting the use of traditional medicines are economic factors and ease of access (Situmorang & Harianja, 2014). Leininger theorized about how to facilitate a culture's use of alternative therapies in a transcultural nursing model using cultural preservation, cultural accommodation, and cultural re-patterning (Allgood, 2014).

Characteristics of children under five who are believed to experience *kapidaraan* felt heated within their torso while their ears and feet left cold. These typical symptoms can be accompanied by anxiety, vomiting, or medical and complementary medical therapies that cannot reduce fever, diarrhea, and influenza. Based on the participants' signs and symptoms of fevers, they did not mention all categories of infection without local signs or accompanied by local signs, a fever accompanied by rashes, or a fever lasting over seven days. An infection or inflammation caused by bacteria, viruses, or other pathogens stimulates the release of endogenous pyrogens (interleukin, tumor necrosis factor, and interferon). Pyrogen works in the hypothalamus, triggering the production of prostaglandins and increasing the temperature set point. Consequently, the body experiences a cold response, which results in shivering, vasoconstriction, and decreased peripheral perfusion to help prevent heat loss. This also enables the body temperature to increase to a new set point (Kyle & Carman, 2015).

Bapidara Procedures. Treatments attempt to cure a disease. Generally, experts perform treatment, such as medical personnel (doctors) or healers (shamans). Both professions have their own ways of healing a person's disease (Setyoningih & Artaria, 2016).

The use of tools and materials for the *bapidara* process from each traditional healer was inherited from the previous generation. The main ingredients used are lime and turmeric, which were agreed upon in an oath with the disturbing ghosts or spirits. The reddish-yellow color of crushed turmeric implies "hit by supernatural disturbances" and is used if the child's condition has long persisted and is quite severe (Astutik et al., 2016). Lime water is an alkaline solution, while turmeric originally is orange. Indicators of acids and bases made by mixing lime water with turmeric extract produce red. Thus, the quality and quantity of alkaline solutions will change with the scouring of turmeric and lime during *bapidara*.

The use of turmeric as an antipyretic is widely prescribed orally by mixing it with plants or other ingredients. However, there is no explanation for using turmeric with betel lime in *bapidara*, which is used topically. Lime has the chemical formula CaCO_3 , so its main content is calcium. The contents of turmeric include essential oils, curcumin, turmerone, and zingiberene, which are beneficial because they are antibacterial, antioxidant, and anti-inflammatory. As with lowering a fever, this mixture can also enhance strengthen the immune system. Generally, orange-colored rhizomes are used (Hidayat et al., 2015; Khalandar et al., 2018).

Curcumin can be selected as an anti-inflammatory, antipyretic agent because it works through the inhibition of PGE_2 production induced by lipopolysaccharides (LPS) in macrophage cells. Curcumin inhibits the change of arachidonic acid to PGE_2 using the enzyme cyclooxygenase-2 (COX-2). Decreased PGE_2 will decrease cyclic Adenosine Monophosphate (cAMP), which will lower the hypothalamic setpoint so

the body will carry out a mechanism to decrease and normalize the body's temperature (Ashraf & Sultan, 2017). Accordingly, turmeric's curcumin has an antipyretic effect. The treatment of fever may be based on this potential effect (Azis, 2019).

The body part applied with a turmeric and lime mixture shows the area of the lymphatic system in the body of the child. The lymphatic system transports a liquid called *lymph*. This fluid disperses immune components and cells throughout the body. To remove fluid from cells and body tissues, the lymphatic system works with the blood circulation system (Wardhani & Kentjono, 2015).

An indicator of *kapidaraan* that participants trusted was when the child's ears and feet felt cold. During fever, the body has a target core temperature that exceeds the normal value to be achieved by the body, itself. When increasing the body's core temperature, the body's organs make several adaptations, such as shivering and trembling in the body's peripheral parts or extremities, such as the hands and feet, which feel cold and look pale (Astutik et al., 2016).

Health Progress of Children After *Bapidara*.

All participants felt a positive impact after *bapidara*, such as the children under five feeling its benefits and showing recovery characteristics. Participants explained the characteristics of the two- to three-day recovery from the perspective of children under five with fever, such as decreased temperature, ears and feet no longer cold, sweating, not being fussy, and resuming activity after recovery from fever, which immediately cured the child.

The fourth phase of fever is healing phase. The healing phase is phase after prodromal, seizure and fever. In this phase, the set point decreases, and the body releases heat to adjust to the normal set point. Consequently, heat is released through the sweating process. Fever helps develop specific immunity and is nonspecific for assisting with the recovery or defense against

infection and how quickly children's healing process can be affected by microorganisms that enter the body and children's immune system (Chairulfatah, 2017). The recovery time for children with fever varies greatly between traditional and modern treatments. A study explored the factors influencing the use of traditional medicine for children in Ethiopia and found that the use of traditional medicine can be effective in reducing fever and hastening the healing process (Hailu et al., 2020).

Factors That Influence the Choice of *Bapidara* as a Traditional Treatment to Relieve Fever. Sources of support for participants' choosing the traditional treatments of *bapidara* include internal factors, external factors, and both. The internal factor is support that originates from the participants. External factors include outside support, such as a spouse, parent, and people who uphold trust in traditional *bapidara* treatments. Mothers' ability to care for children is affected by various factors, including family and sociocultural factors. Mothers' experiences when caring for a child's fever can have a positive and negative impact on the healthy development of children (Masdiana et al., 2016). Factors that influenced parents' management of fever were previous experience, support from the family environment, working with mothers outside the home, shared responsibility by parents, the child's age, and the parents' health training. Health professional parents perceive an extra responsibility for the diagnosis and treatment of children's fevers (Rodriguez & Martin, 2019).

Limitations. The use of in-depth interviews without the observation method allows biased data collection. To reduce researchers' bias, sources should triangulate each family of participants, traditional healers, and health workers at a pediatric clinic. Interviews with respondents were conducted not just once but repeatedly to obtain complete and in-depth information. Semi-structured interviews used open-ended questions in which the order of questions was not always the same for each participant,

depending on the interview process and the answers of each participant. However, the "Mothers' experience in handling children with fever" guidelines or standards for the interviewer guide (Astutik et al., 2016) ensure that the researcher collects the same type of data from the participants.

Conclusion

Five themes were identified based on the findings: the mother's actions in treating children with fever, a mother's understanding of *bapidara* as local wisdom, *bapidara* procedures, children's health progress after *bapidara*, and factors that influence the choice of *bapidara* as a traditional treatment to relieve fever. Treating children's fevers consists of medical inventions, traditional complementary therapies, and a combination of both. The uniqueness of mothers' understanding of *bapidara* as local wisdom for children's health originated from previous Banjarese generations, which developed explanations for physical and magical diseases. Hence, participants trust traditional healers' *bapidara* procedures. The development of children's fevers after *bapidara* augments children's health and their relatively short recovery process. Factors affecting mothers' choice of traditional treatments for children with fevers comprise intrinsic and extrinsic factors and a combination of both.

Few qualitative or quantitative researchers have explored Indonesian mothers' insights into treating fevers for children dependent on Banjar society's way of life. Therefore, further exploration is warranted. This work has examined significant phenomena not previously investigated, so it tends to be a recommendation for analysts who are keen on quantitatively analyzing the viability of *bapidara* in children under five with a fever. Health workers should develop standard operational procedures for handling fevers in children based on evidence-based practices. Thus, the standard operational procedures for handling fevers in children will become the basis for culturally related parenting decisions

in developing knowledge in the field of complementary therapies.

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