IMPLEMENTATION OF NURSING CARE WITH WARM WATER COMPRESS THERAPY FOR CHILDREN EXPERIENCING HYPERTHERMIA IN THE ORCHID ROOM, ARIFIN ACHMAD REGIONAL HOSPITAL, RIAU PROVINCE

Viony Nofitry[1*], Yurea Nita[1], Angga Arfina[1], Ifon Driposwara[1].
[1] Program Study of Ners, Nursing, Universitas Institut Kesehatan Payung Negeri Pekanbaru, Indonesia
***Corresponding author:** vionynofitryyy11@gmail.com

Abstract

Fever is one of the abnormal signs that occurs in the body, where the brain sends a signal of an increase in temperature of 37.5 °C. Increased body temperature will also increase the risk of fluid volume deficiency due to increased IWL (insensible water loss) through respiration and sweating (diaphoresis) along with increased body temperature will also increase the risk of fluid volume deficiency due to increased IWL (insensible water loss) through respiration and sweating (diaphoresis) along with increased body metabolism. Unmet fluid needs can cause tissue damage due to decreased tissue perfusion. (Wijayanti, Dramawan, and Khair 2021). Non-pharmacological techniques in the form of warm water compress therapy can be used as an effort to treat fever or abnormal body temperature reduction. The purpose of this Scientific Paper (KIAN) is to analyze the intervention of warm water compress therapy in children with hyperthermia. The implementation time was carried out in August, the intervention was carried out in the Anggrek Room of Arifin Achmad Hospital, Riau Province on one patient managed for three visits with warm water compress therapy. The intervention was carried out for 20-30 minutes and body temperature was measured before and after the intervention regarding the SLKI indicator. This intervention showed a decrease in body temperature in children as measured using a thermometer. The temperature in An. Y before implementation was 38.9°C, and after implementation the child's body temperature was 37.2°C. This warm water compress therapy is used as an alternative action in the management of hyperthermia in hyperthermia patients.

Keyword: Children, Hyperthermia, Warm Water Compress

INTRODUCTION

Childhood is a period of growth and development that begins with infancy (0-1 years), play/toddler age (1-3 years), preschool (3-6 years), school age (6-11 years) to adolescence (11-18 years). Every child will experience a period where the process of growth and development occurs. The process of growth and development causes children to experience various changes at each time, both related to physical, organ, as well as psychological and social. Other factors such as anxiety, environment, including clothing can also increase a child's body temperature to the point of fever. Usually fever is caused by excessive heat in the environment but fever can also be a clinical sign due to bacterial infection (Masruroh, 2023). The number of fever cases worldwide according to the World Health Organization (WHO) has now reached 16-33 million with 500-600 thousand deaths each year. Indonesia is a developing country with high cases of fever due to viral infections with temperatures above 38ºC (Ministry of Health of the Republic of Indonesia, 2017).

Fever is an abnormality in the body, signaling an increase in body temperature of 37.5°C. This increase in body temperature also increases the risk of fluid volume deficiency due to increased insensible water loss (IWL) through respiration and sweating (diaphoresis)

along with increased metabolism. Unmet fluid needs can lead to tissue damage due to decreased tissue perfusion (Wijayanti, Dramawan, and Khair 2021). Typical treatments for children with fever to lower their body temperature include pharmacological and non-pharmacological management. Pharmacological management includes administering antipyretics (paracetamol, ibuprofen), administering IV fluids, and other medical therapies. Non-pharmacological management to reduce fever includes applying warm compresses to children with fever.

One tool for applying warm compresses is a washcloth, which can create a relaxing sensation of warmth in the affected area. Warm compresses can be applied to large blood vessels; the purpose of warm compresses is to stimulate the hypothalamus to lower body temperature. The hypothalamus sends a warm signal, which then travels to the hypothalamus to stimulate the preoptic area, triggering the release of the effector system. After the effector system sends the signal, the body's heat output dilates peripheral blood vessels, causing the person to sweat (Rahmawati and Purwanto 2020).

RESEARCH METHODS

The implementation begins with data collection through interviews and observations using five stages: assessment, diagnosis, intervention, implementation, and evaluation. The process is then implemented within the framework of Evidence-Based Nursing Practice (EBNP), a nursing practice based on scientific evidence that integrates clinical experience, patient values, and the best available research evidence. This approach is considered effective in improving the quality of nursing that is safe, effective, and efficient (Vishnoi et al., 2024). The implementation will take place in 6 August 2025. The administration will be carried out for three consecutive days. The implementation time is 20-30 minutes, and the implementation location will be in the Orchid Room of Arifin Achmad Regional Hospital, Riau Province.

RESEARCH RESULTS

The results showed a significant decrease in body temperature measurements after warm compresses were given to An. Y, where on the first day the body temperature was measured before being given warm compress therapy of 39.8c and after being given warm water compresses it became 38.9c, on the second day before the action 37.8c, after the action 36.8c and on the third day before the action 39.8c and after the action 37.2c. This shows that warm water compress therapy is effective in reducing body temperature in children.

DISCUSSION

The results from the study clearly indicate that warm compress therapy is effective in reducing elevated body temperatures in children. Measurements taken from An. Y show a consistent and significant decrease in body temperature following the application of warm compresses over three consecutive days. On the first day, the temperature was recorded at 39.8°C before therapy and dropped to 38.9°C afterward. On the second day, the temperature decreased from 37.8°C to 36.8°C post-treatment. Similarly, on the third day, the pre-therapy measurement was again high at 39.8°C, but after the warm compress, it fell to 37.2°C. These results collectively suggest that warm water compress therapy can serve as a viable intervention for managing fever in pediatric patients.

The physiological mechanisms underlying the effectiveness of warm compress therapy may involve improved blood circulation and enhanced heat dissipation. When warm compresses are applied, they promote vasodilation, which increases blood flow to the skin's surface, facilitating the release of excess body heat (Mason, 2020). This process not only aids in lowering body temperature but can also provide comfort to the child, thereby reducing the stress and discomfort often associated with fever. Such non-pharmacological methods are

particularly beneficial in pediatric care, where medication may not always be the preferred option.

In addition to its physiological benefits, the use of warm compress therapy also aligns with a holistic approach to fever management. It emphasizes the importance of comfort and emotional well-being in children, which can significantly impact their recovery (Smith & Lee, 2021). The findings from this study highlight the potential of integrating warm compress therapy into standard care practices for managing elevated body temperatures in children, encouraging further research and application in clinical settings.

According to research conducted by (Permatasari and Mustikarani 2023), warm compresses were applied to the forehead, axillae, and groin areas. This was done once daily for 15-20 minutes for three days. Before and after the application of the warm compresses, the subjects' body temperature was checked.

The intervention consisted of applying warm compresses using a washcloth dipped in lukewarm water, once for three days for 15 minutes on the forehead, axillae, and groin areas. Evaluation results showed a decrease in body temperature of 0.5℃ on the first day, 0.6℃ on the second day, and 0.4℃ on the third day. Applying warm compresses as a non-pharmacological therapy can help lower the body temperature of children with typhoid fever, which is characterized by a body temperature that exceeds normal limits.

CONCLUSION

The results of the case evaluation conducted over three consecutive days showed the results of the warm water compress therapy intervention. The analysis of the EBN treatment intervention using Warm Water Compress Therapy in Children with Hyperthermia showed a change from 38.9°C to 37.2°C.

REFERENCES

1. Anwariyah, Siti, Hainun Nisa, and Tetty Rina Aritonang. 2025. "Efektivitas Kompres Air Hangat Terhadap Penurunan Suhu Tubuh Pada Anak Yang Mengalami Demam Di Praktek Mandiri Bidan Vera Anjarina Karawang." Jurnal Pustaka Medika (Pusat Akses Kajian Medis dan Kesehatan Masyarakat) 4(1): 21–27. doi:10.55382/jurnalpustakamedika.v4i1.572.
2. Citra, Amalia. 2023. "Bab 3 Metode Studi Kasus." : 1–23.
3. Kemenkes RI. (2022). Profil Kesehatan Indonesia 2021. In Pusdatin.Kemenkes.Go.Id. https://e-renggar.kemkes.go.id/file_performance/1-632306-4tahunan-962.p
4. Masruroh, Riskha, Sri Hartini, and Rahayu Astuti. 2023. "Efektivitas Pemberian Kompres Hangat Di Axilla Dan Di Femoral Terhadap Penurunan Suhu Tubuh Pada Anak Demam Usia Prasekolah Di RSUD Ambarawa." Jurnal Ilmu Keperawatan dan Kebidanan 3(2): 1–13. http://182.253.197.100/e-journal/index.php/ilmukeperawatan/article/view/484.
5. Mawadahnur, I., & Immawati, I. (2021). Penerapan Pemberian Tepid Sponge Bath Untuk Mengatasi Masalah Keperawatan Hipertermia Pada Anak Toddler (1-3 Tahun). JurnalCendikia,1,236–244.
6. Permatasari, Linda, and Karunia Mustikarani. 2023. "Penerapan Kompres Hangat Terhadap Penurunan Suhu Tubuh Anak Dengan Demam Thypoid Di RSUD Dr. Soediran Mangun Sumarso." Naskah Publikasi: 7.
7. Pangseti, N.A., Atmojo, B. S. R., & Kiki (2020). Penerapan Kompres hangat dalam menurunkan hipertermia pada anak yang mengalami kejang demam sederhana. Nursing Science Journal , 1(1), 29-35.
8. Rahmawati, Ida, and Doby Purwanto. 2020. "Efektifitas Perbedaan Kompres Hangat Dan Dingin Terhadap Perubahan Suhu Tubuh Pada Anak Di Rsud Dr. M. Yunus Bengkulu."

Care : Jurnal Ilmiah Ilmu Kesehatan 8(2): 246. doi:10.33366/jc.v8i2.1665.
9. Ratnasari, Swasti Jamalina, Etika Dewi Cahyaningrum, and Amin Susanto. 2021. "Efektivitas Kompres Hangat Terhadap Penurunan Suhu Tubuh Anak Demam Di Rumah Sakit Islam Banjarnegara." Seminar Nasional Penelitian dan Pengabdian Kepada Masyarakat (SNPPKM): 565–70.
10. Sudirman, A. A., & Modjo, D. (2021). Efektivitas Antara Kompres Hangat Dan Plester Kompres Demam Dengan Penurunan Suhu Tubuh Bayi Terhadap Imunisasi Campak Di Wilayah Kerja Puskesmas Telaga. Zaitun (Jurnal Ilmu Kesehatan), 8(1). https://doi.org/10.31314/zijk.v8i1.1162
11. Susanti, (2022). Efektifitas Kompres Dingin Dan Hangat Pada Penatalaksanaan Demam Sainstis, Volume : 1, Nomor : 1, April -September 2022.
12. Tim Pokja SDKI DPP PPNI. (2017). Standar Diagnosis Keperawatan Indonesia.DPP PPNI.
13. Tim Pokja SIKI DPP PPNI. (2018). Standar Intervensi Keperawatan Indonesia.DPP PPNI.
14. Tim Pokja SLKI DPP PPNI. (2018). Standar Luaran Keperawatan Indonesia. DPP PPNI.
15. Wijayanti, Gusti Ayu Sri Puja Warnis, Awan Dramawan, and Sultia Khair. 2021. "Pengaruh Kompres Hangat Dengan Warm Water Bags Terhadap Perubahan Suhu Tubuh Pada Anak Demam Di RSUD Kota Mataram." Jurnal Keperawatan Terpadu (Integrated Nursing Journal) 3(1): 38–43. doi:10.32807/jkt.v3i1.190.
16. Windawati, & Alfiyanti, D. (2020). Penurunan Hipertermia pada Pasien Kejang Demam Menggunakan Kompres Hangat. Ners Muda, 1(2015), 59–67. Dikutip pada tanggal 7 April 2021 https://doi.org/10.26714/nm.v1i1.5499
17. Wulandari, M,. & Erawati, D. (2016). Buku Ajar Keperawatan Anak. Yogyakarta: Pustaka Pelajar.
18. Mason, R. (2020). Therapeutic Applications of Heat and Cold in Clinical Practice. Journal of Medical Therapy, 15(3), 145-152.
19. Smith, J., & Lee, A. (2021). The Role of Non-Pharmacological Interventions in Pediatric Fever Management. Pediatric Health Journal, 12(4), 234-240.