



## Management of Warm Compresses in Typhoid Fever Children

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**Abstract.** School-age children are easily targeted for various diseases, especially gastrointestinal diseases because school-age children have not paid much attention to their health, including the snacks they eat. Digestive diseases that most often infect school-age children due to poor schoolchildren's snacks include typhoid fever. Typhoid fever is a disease caused by *Salmonella Thypi* bacteria. The priority of treatment in typhoid fever patients is hyperthermia management with the application of warm compresses that can help lower the body temperature of patients with typhoid fever. Purpose: From this case study, it is to help reduce body temperature against hyperthermy in school-age children with a medical diagnosis of typhoid fever at Arjawinangun Hospital Cirebon. Method: This scientific paper uses a descriptive qualitative design with the number of subjects as many as 2 respondents of school-age children with a medical diagnosis of typhoid fever who were given an intervention, namely a warm compress. Data collection techniques use interviews, observations and documentation studies. Conclusion: after the cooperative action, one experienced a temperature decrease of 1.1°C from 37.8°C to 36.7°C while patient 2 experienced a temperature decrease of 1.7°C from 38.3°C to 36.6°C. Suggestion: the patient's family can perform the very conflict act independently that has been taught by the nurse and in accordance with the standard operating instructions for warm compress procedures in the manual.

**Keywords:** School-Age Child, Typhoid Fever, Fever, Warm Compresse

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### INTRODUCTION

Various diseases efficiently target children; in school-age children, curiosity is very high, so they try to interact with those in their environment. School-age children have not paid much attention to their health, including the snacks they eat. School-age children tend to like snacks that are not good. The selection of snacks that are not good for school-age children can affect their health, especially putting them at risk of damage to their digestive organs. Digestive diseases that most often infect school-age children because of poor schoolchildren's snacks include typhoid fever.

Typhoid fever is a long-lasting and prolonged fever, an acute infectious disease of the digestive system caused by *Salmonella typhi*. Typhoid fever can be transmitted directly through feces, urine, or secretions from typhoid sufferers and can also be transmitted through food and drinks contaminated by *Salmonella typhi* bacteria (Levani & Prastya, 2020).

Typhoid fever cases in Indonesia currently reach around 760-810 cases per year, and the mortality rate of 3.1-10.4% even ranks third in typhoid among countries in the world. Typhoid fever sufferers in Indonesia tend to increase yearly, with an average of 800-100,000 population (Ministry of Health RI, 2018).

The priority of fever treatment in typhoid fever patients is that patients are recommended to do hyperthermia management with the application of warm compresses that can help to facilitate blood circulation and can reduce the body temperature of patients with typhoid and can be done periodically to prevent complications and accelerate the healing of typhoid fever patients (M.Awa, 2019).

Warm compresses are effective for lowering the body temperature of feverish children. Various studies proved it. Thus, research from (Nofitasari Wahyuningsih, 2019) obtained results in patient one. The initial temperature was 38.8 ° C, and after warm compress therapy for three days, there was a decrease in temperature to 37.6 ° C. Patient 2's initial temperature was 38.5 ° C. After warm compress therapy for 3 days, the temperature became 37, 8°C.

## **METHOD**

The design of this scientific paper is qualitative in the form of a case study to explore nursing care in typhoid fever children, especially the implementation of warm compresses with the main problem of body temperature disorders at Arjawinangun Hospital. The approach used is a nursing care approach which includes assessment, diagnosis, intervention, implementation and evaluation.

## **DISCUSSION**

The results obtained after a warm compress on two school-age pediatric patients with typhoid fever were after a warm compress for five days. This warm compress action is carried out 2 hours before the drug is given to patients one and 2. In patient 1, the original body temperature results before the warm compress action were 37.8 ° C. After five days of warm compress action, the final temperature was 36.7 ° C, so the results of a decrease in body temperature were obtained, which was 1.1 ° C. In patient 2, the temperature measurement results before the warm compress action was 38.3 ° C, and after five days of warm compress action, the results were 36.6 ° C, and the results of the temperature decrease were 1.7 ° C.

Analysis of the patient's response after a specific warm compress action obtained data on both patients experiencing a decrease in body temperature, decreased pulse, decreased redness of the skin, and decreased skin temperature, patient one on the first day, his body temperature was

37.8°C, pulse 112 x / minute, his skin color was reddish, and his skin temperature was warm, after a warm compress action for five days the temperature became 36.7 °C, pulse 78 x / minute, skin color mature and average skin temperature so that it experiences a decrease in temperature of 1.1 C, a decrease °in pulse 34x / minute, a decrease in redness in the skin and a decrease in skin temperature.

In patient 2, on the first day, the temperature was 38.3 C, pulse 127 x / minute, skin color was reddish, and skin temperature was warm. After a warm compress for five days, the temperature was 36.6° C, the pulse was 88 x / minute, the skin color was yellow, and the skin temperature was expected so that it experienced a decrease in temperature of 1.7 C, a decrease in °pulse 39x / minute, a decrease in the level of skin redness and a decrease in skin temperature.

This study proved that five-day warm compresses for 15-20 minutes each can reduce the child's body temperature during typhoid fever. This is evidenced by the research results on two febrile child subjects with typhoid fever who carried out warm compress actions and obtained results on patient one on the first day. His body temperature was 37.8° C, pulse 112 x / minute, his skin color was mature, and his skin temperature was warm; after a warm compress for five days, the temperature became 36.7 C, pulse 78 x / °minute, His skin color is mature and his skin temperature is average so that he has a temperature decrease of 1.1°C and a pulse drop of 34x / minute.

In patient 2, on the first day, the temperature was 38.3 C, pulse 127 x / minute, skin color was reddish, and skin temperature was warm. After a warm compress for five days, the temperature was 36.6 C, pulse °88 x / minute, skin color was yellow, and skin temperature was expected so that it experienced a decrease in temperature of 1.7 C and a decrease pulse of 39x / minute. The possibility factor of children's body temperature dropping can also be because of bed rest, which can decrease cell activity and metabolic processes, which can reduce body temperature (Marni, 2016).

Analysis of the change response obtained in inpatient one and patient two after a warm compress action for five days, namely a decrease in body temperature in patient 1 experienced a decrease in body temperature of 1.1 C. Patient 2 experienced a decrease in body temperature of 1.7 C, in addition to decreased body temperature, skin temperature also decreased from warm to normal °in patient one and patient 2.° This event is a warm effect of the washcloth can facilitate blood vessels so that blood flow becomes smooth and body temperature decreases (Pebrianto et al., 2017).

In addition, the changes that occur are also pulse pressure; in Patient 1, the pulse, initially 112x / minute, changes to 78x / minute, which initially the pulse quickly becomes routine, and in Patient 2, the pulse, initially 127x / minute, change to 88x / minute, which initially pulse quickly becomes routine. The decrease in pulse is directly related to the child's body temperature because fever is a factor causing astringent heartbeat, so when the child's body temperature decreases, the child's heart rate also returns to normal (Anisa, 2019).

## CONCLUSION

Nursing care was carried out on 2 school-age pediatric patients with a medical diagnosis of typhoid fever who performed warm compresses for 5 days to lower the child's body temperature. After the implementation of warm compresses for 5 days, an evaluation was obtained, namely the child's body temperature decreased, as evidenced by objective data from temperature measurement results and hyperthermia problems resolved. So that nursing care in typhoid fever school-age pediatric patients with hyperthermia can be resolved.

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