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Efektivitas Konseling Terhadap Pengetahuan Pencegahan Tifus Bagi Ibu dari Pasien Rawat Inap Pediatri

The Effectiveness of Counsling on Mother's Typhoid Prevention Knowledge Among Pediatrics' Inpatients

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Abstrak

Di seluruh dunia, penyakit tifus mempengaruhi antara 11 hingga 20 juta individu setiap tahun. Risikonya lebih tinggi bagi pria, bagi mereka yang berpendidikan rendah, dan bagi mereka yang berusia di bawah empat belas tahun. Studi ini bertujuan untuk meneliti dampak konseling terhadap pengetahuan pencegahan tifus di kalangan pasien di Rumah Sakit Muhammadiyah. Pendekatan preeksperimental satu kelompok pretest-posttest digunakan untuk mewawancarai 30 peserta guna mengevaluasi tingkat pengetahuan mereka sebelum dan setelah konseling. Uji Homogenitas Marginal menunjukkan peningkatan tingkat pengetahuan rata-rata dari 2,03 menjadi 2,80. Temuan tersebut menunjukkan bahwa konseling meningkatkan pemahaman tentang pencegahan tifus, menekankan pentingnya pendidikan kesehatan dasar bagi pasien dan keluarga mereka.

Kata Kunci:
Anak Dirawat
Pengetahuan Ibu
Penyakit Diare
Promosi Kesehatan

Keywords:
Diarrheal Disease
Health Promotion
Hospitalized Toddler
Mother Knowledge

Abstract

Worldwide, typhoid disease affects between 11 and 20 million individuals annually. The risk is higher for men, for those with less education, and for those less than fourteen years old. This study aims to examine the impact of counseling on typhoid prevention knowledge among patients at Muhammadiyah Hospital. A pre-experimental one-group pretest-posttest approach was employed to interview 30 participants to evaluate their knowledge levels prior to and following counseling. The Marginal Homogeneity Test indicated a rise in average knowledge levels from 2.03 to 2.80. The findings indicated that counseling enhances understanding of typhoid prevention, underscoring the necessity of basic healthcare education for patients and their families.

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INTRODUCTION

Maternal Typhoid fever, caused by the bacterium Salmonella Typhi, remains a significant public health issue both globally and in Indonesia. Worldwide, typhoid fever accounts for approximately 11-20 million cases annually, with an estimated 216,000 to 600,000 deaths each year (Atzmardina, Darmawan, & Satyanegara, 2023; Purba, Wandra, Nugrahini, Nawawi, & Kandun, 2016). In Asia, the incidence rate is notably high at 267.6 cases per 100,000 people per year (Atzmardina et al., 2023). Indonesia, in particular, faces a substantial burden from this disease, with a morbidity rate of 500 per 100,000 population and a mortality rate of 0.65% (Herawati & Ghani, 2009a; Raflizar & Herawati, 2010). The Ministry of Health in Indonesia reported 41,081 cases of typhoid fever, highlighting its endemic nature in the country (Atzmardina et al., 2023). The disease is prevalent across various regions in Indonesia, with significant genomic diversity of Salmonella Typhi strains observed, indicating both localized endemic strains and the movement of strains across the archipelago (Moehario, 2009). The epidemiology of typhoid in Indonesia is influenced by several factors, including poor water quality, inadequate sanitation, and insufficient personal and food hygiene practices (Herawati & Ghani, 2009a; Raflizar & Herawati, 2010; Verliani, Hilmi, & Salman, 2022).

The difference in maternal knowledge about the prevention of typhoid before and after development is influenced by several factors, including education, socioeconomic status, access to health resources, and targeted health education programs. Studies have shown that maternal education plays a crucial role in understanding and preventing typhoid. Mothers with higher education levels are more likely to have better knowledge about typhoid prevention compared to those with lower education levels (Mutalikdesai, 2015; Qomah, Tazkiah, Hardiyanti, & Nurmuliana, 2023). Socioeconomic conditions also significantly impact maternal knowledge. Families with higher income levels and better living conditions, such as proper sewage systems and garbage disposal, tend to have mothers with higher self-efficacy in preventing diseases like typhoid and diarrhea (Oliveira et al., 2017). Access to health resources, including the presence of health surveillance assistants in communities, enhances maternal knowledge by providing necessary information and support (Masangwi et al., 2012). Additionally, targeted health education programs have proven effective in increasing maternal knowledge (Mutalikdesai, 2015). The presence of health education campaigns, also plays a vital role in disseminating information and improving maternal knowledge about disease prevention (Iduoriyekemwen & Osarogiagbon, 2011). Furthermore, the availability of accurate diagnostic tests and effective vaccine campaigns can influence maternal knowledge by providing reliable information and preventive measures (Jones, Darton, & Pollard, 2014; Tahir et al., 2023).

The relationship between maternal knowledge and the incidence of diseases like typhoid and diarrhea underscores the importance of continuous education and resource allocation to enhance public health outcomes. Therefore, improving maternal knowledge about typhoid prevention requires a multifaceted approach that includes education, socioeconomic improvements, access to health resources, and targeted health education programs (Darmawan, Basry, & Wahyuddin, 2022; Herawati & Ghani, 2009b). Muhammadiyah hospitals do not have sufficient evidence on the effectiveness of their treatments. The purpose of the study is to provide the patients at Muhammadiyah hospital with the opportunity to counsel for enhancing knowledge in terms of Typhoid prevention.

METHODS

The research was conducted out at Muhammadiyah Palembang Hospital between November 23 and December 18, 2023. This study employed a pre-experimental design, more precisely a one-group pretest and posttest design. The sampling technique employed was complete sampling, with a sample size of 30 respondents who fit the specified inclusion and exclusion criteria. The study's inclusion criteria consisted of mothers whose children were diagnosed with a clinical diagnosis of typhoid fever from a pediatrician and who expressed a willingness to participate by providing written informed consent. The exclusion criteria encompass women who have dementia and mothers who have received or participated in typhoid fever counseling. The inquiry employed a survey comprising of 14 inquiries. Data for the research was collected through conducting in-person interviews with participants. The interviews generated varying degrees of knowledge, ranging from high to moderate to low. The data were analyzed using the statistical software SPSS Version 27.

An analysis was conducted to establish the distribution of characteristics related to the respondents, including the age of the mother, age of the kid, education level, and occupation. A bivariate study was conducted to assess the effect of counseling on enhancing mothers' knowledge levels during their hospital stay. This study employed the Marginal Homogeneity method test. The research received approval by the Bioethics, Humanities, and Islamic Medicine Committee (UBKHI) of the Faculty of Medicine at Universitas Muhammadiyah Palembang. The approval is officially recorded in letter No.151/EC/KBHKI/FK-UMP/XI/2023.

RESULT AND DISCUSSIONS

The research had a total of thirty participants. The majority of participants were between the ages of 21 and 40. The greatest degree of education achieved by most participants was senior high school. The occupation stated by most participants was housewife. Additionally, the largest number of children reported by participants belonged within the 5–11-year age category (as shown in table 1). Respondents had a moderate level of comprehension before receiving counseling, however their level of knowledge significantly improved to a high degree after counseling (Table 2). The marginal homogeneity test resulted in a p-value of 0.001 (p-value <0.05), suggesting a significant change in mothers' awareness of preventing typhoid before and after counseling (Table 3).

Typhoid fever is typically transmitted from one person to another through the ingestion of food and drinks that have been contaminated with fecal matter. Hence, it is crucial to prevent the transmission of typhoid within households, particularly in regions where it is prevalent.

Table 1. Patient's Characteristics (n=36)

Characteristics	Frequency	*Percentage* (%)
Age (years old)		
21-40	27	90
41-60	3	10
Education		
Elementary	7	23.3
School	6	20
Junior HS	11	36.7
Senior HS	6	20
College		
Occupation		
Housewife	27	76.7
Self Employee	3	23.3
Farmer	0	0
Government of	0	0
Child's Age (years old)	7	76.7
0-4	23	23.3
5-11		

Abbreviate: HS: high school; of: officer

Counseling regarding administering typhoid prophylaxis to the mother of an individual undergoing treatment for typhoid fever is a complex matter that necessitates comprehension of the disease transmission, the

vaccine's function, and the broader implications for public health (Owais, Sultana, Zaman, Rizvi, & Zaidi, 2010). The concept of "ring vaccination," which involves administering vaccines to individuals in close proximity, not only safeguards individuals who have received the vaccination, but it also aids in the establishment of herd immunity, thereby reducing the overall risk of infection within the population (Kaplan & Hill, 1992). However, the effectiveness of this approach depends on several factors, including vaccine coverage, the timing of vaccination, and the specific epidemiological context (Tijani, Madubueze, & Gweryina, 2023).

Table II. Anxiety Level Baseline Analysis (murottal =16, classical music=16)

Variables	Intervention	Freq-uency	Percen-tage (%)
Not Anxious	Pre treatment	9	30
	Post treatment	25	83.3
Mild Anxiety	Pre treatment	13	43.3
	Post treatment	4	13.3
Moderate Anxiety	Pre treatment	8	26.7
	Post treatment	1	3.3

Table III. Anxiety Level Improvement Analysis (murottal =16, classical music=16)

Variables	Interven tion	Counseling		*p-value*
		Mean	SD	
Knowledge	Pre treatment	2.03	0.765	0.001
	Post treatment	2.80	0.484	
Marginal Homogeneity Test		44.5	2.693	<0.001

Additionally, the potential for asymptomatic carriers within the household, who can continue to shed the bacteria, poses a challenge to controlling the spread solely through vaccination (Ghai & Paul, 1984). Furthermore, there are logistical and economic considerations, while implementing a vaccination program targeting household contacts requires resources and infrastructure needs to be evaluated against other public health priorities (Irena & Gakkhar, 2022). In conclusion, while counceling regarding comprehensive strategy that counseling includes improving sanitation, hygiene, and access to clean water, the success of this approach also hinges on the availability of vaccines, public health infrastructure, and community engagement (Engels & Lau, 1998). Policymakers should consider these factors when designing interventions to control typhoid fever in endemic regions (Buongiorno & Schiraldi, 1984).

Through meticulous analysis and interpretation of the research findings, we can ensure that the conclusions drawn precisely represent the efficacy of counseling in enhancing maternal knowledge about typhoid prevention, while considering these limitations and confounding factors. Without a control group and solely relying on pre- and post-intervention data, it is challenging to attribute the increase in knowledge solely to the counseling session. This is due to the lack of certainty on the hypothetical outcome if therapy had not taken place. The interval between counseling and the testing of post-counseling knowledge may impact the outcomes. Immediate effects of counseling may enhance knowledge, but it does not ensure sustained comprehension in the long run. Diversity in counseling approaches, such as variations in counselors or methods used, can lead to differences in information acquisition, which may introduce a complicating element. Low baseline knowledge may lead to greater improvements compared to high baseline knowledge among mothers, which can impact overall outcomes. The instruments utilized for knowledge assessment may lack the necessary sensitivity to fully capture all dimensions of comprehension about typhoid prevention, resulting in either underestimation or overestimation of improvements in knowledge. Mothers may experience a strong inclination to provide responses that researchers consider socially acceptable or desirable, especially after receiving counseling, which can affect the accuracy and reliability of the research results. The hospital environment can provide supplementary exposure to health information, such as

through posters, brochures, or conversations with medical staff, which may enhance knowledge but is not directly related to the counseling session. Mothers with a familial history of typhoid may possess prior knowledge about the disease, perhaps resulting in a diminished learning experience during therapy compared to moms without any previous exposure. The results did not take into consideration the potential impact of mothers' exposure to additional information sources, such as the media, family, or communities, during the research period, despite the possibility that it may have increased their knowledge. Mothers who come from higher socioeconomic backgrounds may derive greater advantages from counseling materials tailored specifically for them, whereas mothers from lower socioeconomic backgrounds may require a more intricate approach. The stress and concern that mothers feel about their child's hospital treatment can have a negative effect on their ability to concentrate and remember things. Consequently, the results of knowledge assessments may be impacted.

CONCLUSION

The study demonstrated differences in mothers' knowledge of typhoid prevention before and after counseling. As a result, it is recommended that primary healthcare centers educate patients and their families about typhoid and its prevention measures.

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