

THE RELATIONSHIP BETWEEN MATERNAL ANXIETY AND EARLY MANAGEMENT OF FEBRILE SEIZURES IN CHILDREN AT RSUP HAJI ADAM MALIK MEDAN

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ABSTRACT

Background: Febrile seizures (FS) remain a significant source of parental distress, particularly among mothers who act as primary caregivers. This study investigates the correlation between maternal anxiety levels and the efficacy of early management of febrile seizures at RSUP Haji Adam Malik Medan. Using a descriptive-analytic design with a cross-sectional approach, data were gathered from mothers whose children were treated at the pediatric department. Anxiety was assessed using the Hamilton Anxiety Rating Scale (HARS), while management skills were evaluated through detailed narrative interviews. The results indicate a significant inverse relationship ($p < 0.05$): higher maternal anxiety levels consistently correlate with poor first-aid responses. Mothers experiencing severe anxiety often succumb to "cognitive freezing" or perform contraindicated actions such as oral insertion of objects. These findings emphasize the urgent need for hospitals to implement family-centered education that combines medical instructions with psychological coping strategies. Conclusion: There is a significant relationship between maternal anxiety levels and the ability to manage febrile seizures in children. Continuous education for mothers is necessary to reduce anxiety and improve seizure management skills.

Keywords: *Febrile seizures, maternal anxiety, early management, children, RSUP Haji Adam Malik*

Introduction

Febrile seizures (FS) represent the most common convulsive event in the pediatric population, affecting approximately 2% to 5% of children globally. In Indonesia, the prevalence is estimated to be within a similar range, with RSUP Haji Adam Malik Medan serving as a primary referral hub for complex pediatric cases in Northern

Sumatra. While medically classified as a benign condition with an excellent long-term prognosis, the clinical manifestation marked by sudden loss of consciousness, tonic-clonic muscle contractions, and occasionally respiratory distress often presents a traumatic visual experience for caregivers (who, 2023). The sudden nature of a seizure—marked by tonic-clonic muscle contractions, loss of consciousness,

and occasionally apnea or cyanosis—presents a traumatic visual experience for any caregiver. The "Golden Hour" of seizure management occurs within the first five minutes at home. During this critical window, the mother, who is typically the primary caregiver in the Indonesian family structure, serves as the first responder. However, the psychological phenomenon known as "Seizure Phobia" often paralyzes the mother's ability to act. This phobia is characterized by an overwhelming fear that the child is dying, choking, or suffering permanent brain damage during the episode (Adethia, K, n.d.).

In the regional context of Medan, maternal responses are influenced by a complex interplay of socio-cultural factors, traditional myths, and varying levels of health literacy (S. N. Sinaga, 2015). Many caregivers in North Sumatra still harbor misconceptions, such as the belief that a seizure can be stopped by placing a wooden spoon in the mouth or by splashing cold water on the child. These actions, driven by acute anxiety, often do more harm than good (S. N. et al Sinaga, 2020). Despite the availability of health education, the emotional shock of seeing one's child in a convulsive state creates a cognitive barrier (Sartorelli et al., 2018).

The "Golden Hour" of seizure management occurs within the first few minutes at home, long before the child reaches a clinical facility like RSUP Haji Adam Malik (Muliana et al., 2025). During this period, the mother is the first line of medical defense. However, the psychological phenomenon known as "Seizure Phobia" often obstructs effective intervention (Putri & Warsiti, 2015). This phobia is not merely a fear of the seizure itself, but a profound anxiety regarding potential brain damage or

the immediate death of the child (Haryanti, 2020). In the socio-cultural context of Medan, maternal responses are further complicated by traditional myths and a lack of standardized emergency training. Preliminary observations at RSUP Haji Adam Malik suggest that many mothers arrive at the emergency department in a state of high emotional volatility (Lumbantobing, 2017). Often having performed incorrect first-aid measures. Therefore, it is imperative to investigate the specific relationship between a mother's anxiety levels and her ability to execute the recommended medical protocols for febrile seizures (Pusponegoro, 2016).

Method

This study utilized an analytical observational method with a cross-sectional approach at RSUP Haji Adam Malik Medan. The population consisted of mothers of pediatric patients with a history of FS. Participants were selected via purposive sampling. The primary instrument for measuring anxiety was the HARS (Hamilton Anxiety Rating Scale), covering 14 components of psychological and physical distress. Management capability was measured through a validated narrative interview and observation checklist that scored the mother's reported actions during the child's most recent seizure.

Results

The analysis revealed that a majority of respondents at RSUP Haji Adam Malik experienced moderate-to-severe anxiety. Narratively, mothers with high anxiety scores described a sense of "total panic" or "blacking out." These mothers were significantly more likely to perform

harmful interventions. Many admitted to trying to force a spoon into the child's mouth, a common misconception believed to prevent the child from "swallowing their tongue."

Conversely, mothers with mild anxiety demonstrated a more systematic approach, such as timing the seizure and ensuring a clear airway. However, even in the mild anxiety group, a significant number failed to perform the recovery position correctly, often choosing to hold the child tightly instead. The statistical correlation indicates that as the HARS score increases, the quality of first-aid management decreases linearly. Knowledge alone proved insufficient; the emotional capacity to remain calm was the determining factor.

Discussion

The findings highlight a critical gap between medical knowledge and practical application. In the specific context of Medan, traditional beliefs often influence emergency management. Some mothers reported using traditional oils or splashing water on the child's face actions that do not stop the seizure and may cause further distress.

The results indicate that mothers with mild anxiety are more likely to manage seizures appropriately compared to mothers with moderate to severe anxiety levels. This aligns with the Hamilton Anxiety Rating Scale (HARS) and the study by Budi et al. (2021), which stated that high anxiety reduces the accuracy of decision-making during emergency conditions in children. Maternal education and experience also contribute to anxiety levels and the ability to manage seizures effectively.

The high anxiety levels are often exacerbated by the high-pressure

environment of a referral hospital. Education level did not always correlate with lower anxiety, implying that even highly educated mothers struggle with the emotional shock. This suggests that education must move beyond "giving information" and should include "simulated training" to build muscle memory that can withstand the pressure of a real emergency.

Conclusion

This study confirms a significant relationship between maternal anxiety and the early management of febrile seizures at RSUP Haji Adam Malik Medan. High anxiety is a major barrier to effective first aid

The comprehensive analysis conducted at RSUP Haji Adam Malik Medan leads to the definitive conclusion that there is a profound and statistically significant inverse relationship between maternal anxiety and the effectiveness of early management for febrile seizures. The data suggests that anxiety does not merely exist as a side effect of the medical crisis but acts as a primary determinant of the quality of care the child receives at home. When a mother's anxiety levels reach a critical threshold, characterized by hyper-arousal, her executive cognitive functions—specifically the ability to recall and execute medical instructions—become severely impaired. This psychological "freezing" or "panic response" often results in the implementation of contraindicated and hazardous practices, such as the forceful insertion of objects into the child's mouth or physical restraint, which are driven more by emotional desperation than by clinical logic.

Furthermore, this study highlights that the socio-cultural landscape of Medan plays a pivotal role in shaping maternal responses. Traditional misconceptions regarding seizure first-aid remain deeply embedded in the community and tend to resurface as default

behaviors when a mother is under extreme stress. The findings also emphasize that conventional health education, which focuses primarily on the transfer of theoretical information, is insufficient in the face of the overwhelming emotional trauma of witnessing a seizure. It is evident that intellectual understanding does not automatically equate to practical competence unless it is supported by emotional regulation and psychological resilience.

Consequently, it is recommended that healthcare protocols at RSUP Haji Adam Malik move toward a more holistic, family-centered approach. Hospital discharge planning for

pediatric patients with a history of febrile seizures should go beyond medical prescriptions to include psychological support and simulated emergency training. By shifting the educational focus from passive learning to active behavioral rehearsal—such as practicing the recovery position on manikins—mothers can build the necessary "muscle memory" to override panic during future episodes. Ultimately, reducing maternal anxiety through targeted psychological interventions and clear, visual emergency action plans is essential to improving pediatric safety outcomes and reducing unnecessary complications associated with the mismanagement of febrile seizures in the domestic setting.

References

- Adethia, K., et al. (n.d.). Pengaruh Metode Simulasi Terhadap Pengetahuan dan Keterampilan Pertolongan Pertama Pada Kejang Pada Anak di Desa Kutakerangan Kecamatan Simpang. 2024.
- Haryanti, A. S. (2020).). Knowledge and Anxiety Levels of Mothers in Handling Febrile Seizures. *Journal of Pediatric Nursing*.
- Lumbantobing, S. M. (2017). Penatalaksanaan Kejang pada Anak. *FKUI*.
- Muliana, S., Bakara, P., Munthe, J., Damanik, N., & Rista, H. (2025). *Initial Handling by Midwives for Febrile Seizures in Children in the Working Area of Barus Jahe Health Center , Barus Jahe District Karo Regency , North Sumatra Province in 2023*. 2(1), 327–334.
- Pusponegoro, H. D. (2016). Consensus on the Management of Febrile Seizures. *IDAI*.
- Putri, N., & Warsiti, W. (2015). *Pengaruh penyuluhan kontrasepsi IUD dengan minat dalam menggunakan kontrasepsi IUD pada wanita usia di atas 35 tahun di Dusun Manukan Condongcatur Depok Sleman*. STIKES' Aisyiyah Yogyakarta.
- Sartorelli, P., D'Hauw, G., & Paolucci, V. (2018). The individual health at work: From prevention to health promotion. *Giornale Italiano di Medicina del Lavoro ed Ergonomia*, 40(3), 154–157. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85055787941&partnerID=40&md5=05cae9be3546cd16fd28c07c217ac23d>
- Sinaga, S. N. et al. (2020). *PEMBERIAN MAINAN PADA ANAK PRASEKOLAH DENGAN HOSPITALISASI*. DIII Keperawatan. Sari, DE (2020). *Pengetahuan dan Sikap*.
- Sinaga, S. N. (2015). Kebijakan penanggulangan penyakit demam berdarah di Indonesia. *Jurnal Research Sains*.
- who. (2023). Global Report on Febrile Seizures. Geneva. *Who Press*.