

## The effect of parenting type on anxiety level of hospitalised children: A cross-sectional study

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### Abstract

**Objective:** To determine the influence of parenting type on the anxiety level of hospitalised children.

**Method:** The cross-sectional, observational study was conducted in June 2021 at the paediatric ward of Arifin Ahmad General Hospital, Pekanbaru, Riau, Indonesia, and comprised inpatients and their parents. The Data analyses was performed with SPSS 16.0. Statistical test results were considered significant at a  $p < 0.05$  level when 95% confidence intervals did not include zero. A personal Chi-Square test was applied to determine the influence of parenting type on the anxiety level of hospitalised children.

**Results:** There were 25 children with mean age  $4.04 \pm 4.84$  years, while the mean age of 25 parents was  $34.87 \pm 36.89$  years. Among the parents, 15 (60%) were mothers. A significant influence was found between the type of parenting and the anxiety levels in hospitalised children ( $p = 0.037$ ; odds ratio: 2.750; 95% confidence interval: 1.33-18.89).

**Conclusion:** Good parenting patterns during treatment could reduce anxiety levels in hospitalised children.

**Keywords:** Odds Ratio, Anxiety, Sadness, Emotions, Anger, Confidence, Parenting (JPMA 74: S-1 [Suppl. 5]; 2024)

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### Introduction

Hospitalisation can be a planned or emergency process that requires a child to remain in the hospital for treatment and care until discharged home.<sup>1</sup> Hospitalised children tend to experience social, psychological and developmental problems caused by diagnostic and therapeutic interventions, and changes in their social environment.<sup>2</sup>

During a child's hospitalisation, children and their families often experience many events, including trauma and stress, that cause anxiety, anger, sadness, fear and guilt.<sup>3</sup> The phenomenon of separation and the experience of hospitalised children shows that when children are hospitalised, they experience changes in their emotional state similar to their parents.<sup>4</sup>

According to Centres for Disease Control and Prevention (CDC) data, 3-10% of children receiving treatment in the United States experience stress during their hospitalisation.<sup>5</sup> In Germany, around 3-7% of school-age children in care have the same experience,<sup>6</sup> while in Canada and New Zealand, it is applicable in 5-10% cases.<sup>7</sup> The corresponding prevalence in Indonesian children is >45%.<sup>8</sup> According to a study,<sup>9</sup> hospitalisation of children is on the rise since 2017. The effects closely related to hospitalisation, especially in children, include anxiety, feeling uncomfortable in a new environment, dealing with

many unfamiliar people, changes in lifestyle, and the need for painful treatment or therapy.<sup>10</sup> Some studies have shown that children who are hospitalised for more >2 weeks are at risk of suffering from language disorders,<sup>11</sup> decreased cognitive development<sup>12</sup> and gross motor disorder.<sup>13</sup> Children who are hospitalised are isolated from their families, friends, and home.<sup>14</sup> The stress experienced by children is due to separation from parents and peers.<sup>15</sup>

Additionally, negative experiences in the hospital can damage the close relationship between the mother and her child. Children who have never received treatment have more difficulty adjusting to hospital conditions than children who have received treatment earlier. The important role of family members, especially parents, who accompany a child during hospitalisation is to provide the child with a sense of security, comfort and love, and to provide a strong motivation to accept all medical and other measures, including nursing care. A child's willingness to seek medical care can be very helpful in the healing process.<sup>16</sup>

To ease a child's fear of hospitalisation, parents should also participate in games and other fun activities. Games are free and are essentially activities that focus on the process of doing something one enjoys. Playing is also a way for children to express their feelings about something, such as joy, sadness, disappointment, etc. Playing allows children to feel safe, learn a lot, and have new experiences. A technique to reduce anxiety is listening to music, but one can also use pictures to tell stories. Pictorial storytelling techniques can be taught to keep children from getting

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bored while listening, and can add humour and entertainment to the story.<sup>17</sup>

Research on the role of parents in managing the impact of hospitalisation on children shows that forms of parental involvement during a child's hospitalisation ensure cooperation between parents and health professionals, and provide a sense of security to the child. It has been shown that ensuring the presence of a parent who can support children is important.<sup>18</sup> The type of cooperation between parents and health professionals includes involvement of parents in the care process, providing emotional support to the child, participating in simple activities, explaining the child's condition to the child, and attending to the child's needs during treatment. All this is reflected in the response to treatment.<sup>14</sup> Research has proven that anxiety occurs when children are hospitalised, and requires steps to help them overcome their fears. Hospitalisation puts a child's life at risk and is often associated with excessive anxiety. Therefore, children need to play to reduce the fear and anxiety they experience as a tool to cope with anxiety.<sup>9</sup>

The role of parents is critical in supporting the health and wellbeing of children. Acceptance plays a motivating role in this regard.<sup>19</sup> The role of parents is very important in reducing anxiety levels in children during treatment, and research is needed to explore the phenomenon.<sup>20</sup>

The current study was planned to determine the influence of parenting type on the anxiety level of hospitalised children.

## Subjects and Methods

The cross-sectional, observational study<sup>21</sup> was conducted in June 2021 at the paediatric ward of Arifin Ahmad General Hospital, Pekanbaru, Riau, Indonesia, and comprised inpatients and their parents. After approval from the ethics review committee of the State Health Research Institute, Payung Negeri, Nomor, the sample was raised by purposive random sampling technique<sup>21</sup> from among the paediatric inpatients after the sample size was calculated using the Slovin formula.<sup>22</sup> Those included were the patients accompanied by their parents.

Before starting the study, informed consent was taken from the parents. Data collection was carried out using a questionnaire with a Likert scale type<sup>23</sup> for the parental role, and a Facial Image Scale type questionnaire to measure stress level variables.<sup>24</sup> Parenting style was considered good if during the hospitalisation, the parents always accompanied their child and provided support. The parenting style was considered bad if during the parents did not pay maximum attention during the care.

**Table-1:** Characteristics of the patients and respondents.

Variable	Results
<b>Mean Age of Children</b> (years)	4.44±9,61
<b>Age Range</b> (years)	3-6 year
<b>95% CI</b>	4.04-4.84
<b>Mean Age of Parents</b> (years)	35.88±2.455
<b>Range</b>	30-40
<b>95% CI</b>	34.87-36.89
<b>Gender</b>	<b>n (%)</b>
Male	10 (40%)
Female	15 (60%)
<b>History of Being Treated</b>	
Once	9 (36%)
Never	16 (64%)

CI: Confidence interval.

**Table-2:** The influence of parenting style on anxiety levels in hospitalised children.

Anxiety Levels	Role of Parents			p-value	OR/ 95%CI
	Good n (%)	Bad n (%)	Total n (%)		
<b>No Anxiety</b>	3 (12)	0 (0)	3 (12)	0.037	2.750/
<b>Anxiety</b>	8 (32)	14 (56)	22 (88)		1.33-18.89
<b>Total</b>	11 (44)	14 (56)	25 (100)		

OR: Odds ratio, CI: Confidence interval.

The Data analyses was done with SPSS 16.0. Statistical test results were considered significant at a  $p < 0.05$  level when 95% confidence intervals did not include zero. The author conducted a person Chi-Square test to determine the influence of parenting type on the anxiety level of hospitalised children.

## Results

There were 25 children with mean age 4.04±4.84 years, while the mean age of 25 parents was 34.87±36.89 years. Among the parents, 15(60%) were mothers (Table 1).

Good parently style was found in 11(44%) cases. A significant influence was found between the type of parenting and the anxiety levels in hospitalised children ( $p=0.037$ ; OR:2.750; 95% CI: 1.33-18.89) (Table 2).

## Discussion

Hospitalisation of paediatric patients can cause anxiety and stress which is influenced by many factors, including staff factors, like nurses, physicians and other healthcare workers.<sup>25</sup> The reaction to hospitalisation affects not only the child, but also the parents and siblings. Children often experience behavioural changes, feelings of loneliness, and a desire not to be separated from their parents.<sup>26</sup>

Parents play a very important role, especially for children during hospitalisation, especially for children facing a transition period in case of illness, as they face a new atmosphere and strangers.<sup>27</sup>

During hospitalisation, preschool children seek to develop a sense of independence to control their environment and deal with physical and emotional problems that arise.<sup>15</sup> The support of families, especially parents, is urgently needed, as families play an important role in care, especially in the care of preschool children.<sup>28</sup> Family provides a sense of security and influence that can maintain a person's positive self-esteem through expressions of warmth, empathy, approval and acceptance.<sup>29</sup> With this support, children can calmly face the challenges, allowing them to proceed optimally through the treatment process. A patient's response to treatment depends on family factors.<sup>26</sup>

The current study found a significant influence of parents during hospitalisation on the level of anxiety in children. The finding supported earlier research pointing out that hospitalisation of children is a process that may entail traumatic experiences, and that the role of parents is as essential as the provision of appropriate health facilities.<sup>30-34</sup>

The close relationship between the mother and her child is as important as the relationship between the father and his child. This is how gender influences a parent's role when a child is hospitalised<sup>28</sup> as both mother and father have different roles to play. The role of parents in the care of hospitalised children is to increase their involvement in the care process.<sup>31</sup> The form of parent involvement starts from communication between children and nurses, and accompanying children during treatment procedures. This makes children feel safe and not afraid to face medical care. The role of parents cannot be maximised if it is not supported by the nursing staff.<sup>32</sup> The role of parents during a child's hospitalisation is to collaborate between the families and health professionals, and the presence of the parents that can provide a sense of comfort to the patient.<sup>33</sup> A study showed that appropriate parental involvement had a positive impact on children's hospitalisation, as nurses involved both parents and children in decision-making during the treatment.<sup>34</sup> Children develop as individuals, and parents gain a sense of being part of a team providing optimal care to the child during the hospital stay.<sup>35</sup> Parental involvement should be increased when caring for hospitalised children. Without caregiver support, optimal use of the parental role cannot be achieved.<sup>36</sup>

## Conclusion

The role of parents was significantly associated with the level of anxiety in children undergoing hospitalisation, and indicated that a child's care during hospitalisation requires parental attention to reduce anxiety.

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