

# The influence of parenting style and mother's mental health from mental health in children who have siblings with autism



Elsye Maria Rosa<sup>1\*</sup>, Rizkiana Putri<sup>2</sup>, Djauhar Ismail<sup>3</sup>, Ekawaty Lutfia Haksari<sup>4</sup>

## ABSTRACT

**Background:** Mental health is a good emotional and psychological state. Globally 10-20% of children and adolescents experience mental health disorders. Risk factors for mental health problems in children are the mental and physical health of poor/poor parents, problems in childcare and lack of support from neighbors/ neighborhoods. Children who have autism are prone to mental problems.

**Objective:** know the influence of parenting and maternal mental health on the mental health of children who have autism.

**Methods:** The study used a mixed, cross-sectional method to find out the relationship of free variables and bound variables and qualitative secondary data analysis. The analyses used are chi square and multiple linear regressions. The respondents in this study numbered 35 people.

**Results:** Maternal parenting does not affect a child's mental health, while the mother's mental health significantly affects the child's mental health. Maternal acceptance is influenced by family support, professional, and family autism networks. Coping mechanisms that mothers apply are positive thinking, understanding children, and activities with children.

**Conclusion:** The child's mental health condition is affected by the mother's mental health, but simultaneously the mother's parenting also affects the child's mental health. Early treatment in mothers who have mental health problems can reduce the risk of children experiencing mental health problems, so the negative impact on the child can be reduced.

**Keywords:** Child Mental Health, Maternal Mental Health, Parenting Style.

**Cite This Article:** Rosa, E.M., Putri, R., Ismail, D., Haksari, E.L. 2021. The influence of parenting style and mother's mental health from mental health in children who have siblings with autism. *Bali Medical Journal* 10(3) Special Issue ICONURS: 1181-1185. DOI: 10.15562/bmj.v10i3.2879

<sup>1</sup>Master of Hospital Management, Universitas Muhammadiyah Yogyakarta, Indonesia;

<sup>2</sup>Faculty of Health Science, Universitas Aisyiyah Yogyakarta, Indonesia;

<sup>3</sup>Departement of Pediatric, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Indonesia;

<sup>4</sup>Departement of Pediatric, Faculty of Medicine, Public Health, and Nursing, Universitas Gadjah Mada, Indonesia;

\*Corresponding author:

Elsye Maria Rosa;  
Master of Hospital Management,  
Universitas Muhammadiyah Yogyakarta,  
Indonesia;  
[elsye@umy.ac.id](mailto:elsye@umy.ac.id)

Received: 2021-10-30

Accepted: 2021-12-16

Published: 2021-12-30

## INTRODUCTION

Mental health is a good emotional and psychological state. According to WHO data globally 10-20% of children and adolescents experience mental disorders.<sup>1</sup> Mental health problems in children can be caused by several things, among others: families with low incomes are more at risk of causing children to experience mental health disorders than children in high-income families, poor/ poor mental and physical health of parents, problems in child care and lack of support from neighbors / neighborhoods.<sup>2</sup> Other risk factors that can cause mental health problems in children include: spousal conflicts in front of children, children have health problems, and children have problems at school.<sup>3</sup>

According to Indonesian Pediatricians, it is estimated that in 2015 there were more than 12,800 children with autism and

134,000 people on the autism spectrum in Indonesia. Children who have siblings with autism are at high risk for autism, autism threats, and other developmental differences. These developmental problems include decreased intelligence and social, delayed behavioral and neurocognitive development.<sup>4</sup>

The mental health problems of a child who has an autism sibling are not only influenced by autism behavior but also influenced by parenting applied by the mother in daily parenting. Authoritarian parenting is negatively associated with a child's mental health, while democratic parenting is positively related to a child's mental health. Authoritarian parenting is associated with the child's problems with peers and recurring child behavior problems.<sup>5</sup> Other research has shown that authoritarian parenting affects externalizing behavior (aggressive, hyperactive, and defiant) in boys and

girls, while permissive parenting affects externalizing behavior only in boys.<sup>6</sup>

Parents with personality disorders affect children's behavior problems, 13.2% of children's behavior symptoms and 2.9% of children's internalizing symptoms.<sup>7</sup> There was different stability and safety of children from mother with and without mental health problems.<sup>8</sup> This study aims to understand the effect of parenting style and mental health of mother on the sibling of autistic children mental health, furthermore, this study wants to explore how mother acceptance and coping mechanism from having autism children.

## METHODS

Research Design in this study are mixed methode with Explanatory Sequential Design. The first stage uses an approach cross sectional research, then conduct a qualitative data collection using case

studies conducted to find out the effects of maternal parenting and maternal mental health on children who have autism siblings. Research Samples are Thirty-five mothers and children who had autism siblings participated in the study. This study was conducted at 5 special needs children's schools in the Special Region of Yogyakarta Province, Indonesia. Participants' inclusion criteria were families with 2 or more children, had children with autism, children who had autism siblings aged 5-17 years, not single parents. Exception criteria are having 2 or more autistic children in the family, family members who have been diagnosed with mental health disorders, and children who have autism siblings who suffer from acute or chronic diseases.

Qualitative secondary data collected from other studies and mass media (newspapers, news articles) and includes information about acceptance, coping mechanisms, and parenting styles of the mother of an autistic child. A total of 18 sources were used, 11 from mass media and 7 from other studies.

Procedure data collection was conducted for 2 months at 5 schools for children with special needs. Informed consent is filled out by the mother after receiving information about the research. The mother completed 3 questionnaires about children's mental health, parenting style, and mother's mental health.

#### 1) Strength and Difficulties Questionnaire (SDQ)

Strengths and Difficulties Questionnaire (SDQ) is a short behavioral screening instrument for children and adolescents (3-17 years old) that provides a brief overview of behaviors that focus on their strengths as well as difficulties. The SDQ questionnaire contains 25 statements that reveal "very true", "sometimes true", "completely incorrect" which are worth 0, 1, or 2. The 25-item statement was categorized into 5 scales measuring emotional symptoms, creating problems, hyperactivity or lack of focus, problems with peers, and prosocial behaviors including helping, sharing, and caring.<sup>9</sup>

In the SDQ version there are 3 categories of incompetence problems, namely a

score of 0-13 is considered normal, a score of 14-16 is a normal limit score, a score of 17-40 is considered abnormal. There are 3 types of SDQ, namely parents, teachers and children (self-reported) if aged 11-17 years.<sup>9</sup>

The validity for the SDQ questionnaire is 0.76. and reliability tests on SDQ questionnaires filled out by parents produce several 0.77 while on questionnaires filled out by teachers is 0.81.<sup>10</sup>

#### 2) The Parenting Styles and Dimensions Questionnaire (PSDQ)

The Parenting Styles and Dimensions Questionnaire (PSDQ) is a questionnaire developed by Robinson and Mandelco in 1995, which is used to measure the parenting scale with the parents who are respondents and fill out the questionnaire. This questionnaire is already used by education around the world to measure parenting and this questionnaire has good validity and rehabilitation.<sup>11</sup> The PSDQ questionnaire reflects 3 models of parenting by Baumrind's, namely authoritative parenting (Democratic), Permissive parenting, and authoritarian parenting with 32 questions.<sup>12</sup> Questionnaires are filled with 5 assessments: 1 never, 2 occasionally, 3 sometimes, 4 often, and 5 always.

Authoritative dimension reliability tests on the parenting styles & dimensions scale yield cronbach alpha reliability coefficients of 0.92, permissive dimensions of 0.78, and authoritarian dimensions of 0.84. Validity test results using correlations between statement scores and total statement scores show statements have correlation coefficients ranging from 0.38 to 0.84.<sup>13</sup>

#### 3) Hospital Anxiety and Depression Scale (HADS)

The Hospital Anxiety and Depression Scale (HADS) is an instrument used to measure anxiety and depression in the general population. The advantages of HADS are simple, quick, and easy to use, HADS assesses anxiety and depression. Hads questionnaires have been validated in different languages, countries, and some places including in general practice and communities. The

questionnaire contained 7 questions for anxiety and 7 questions for depression and took about 2 to 3 minutes to fill out the questionnaire. The score categories of HADS are as follows; Scores below 7 are categorized as not experiencing anxiety and depression, scores of 8-10 mild categories, scores of 11-14 moderate categories, and scores of 15-21 weight categories.<sup>14</sup>

HADS questionnaires can be filled out by individuals as well as health workers. The HADS questionnaire focused on symptoms of anxiety disorders and depressive symptoms. Each item has a score between 0 and 3. The recommended use of the score is for a score of 8-10 categorized in doubtful cases of anxiety and depression, while a score above 11 is a definite case for cases of anxiety and depression.<sup>15</sup>

The validity for this HADS questionnaire was 0.40 for the HADS questionnaire of the anxiety domain and 0.84 for the HADS domain of depression. While the reliability of this questionnaire is 0.92 for HADS anxiety domain and 0.88 for HADS domain depression.<sup>15</sup>

Analysis using Chi square test was used to test the effect of parenting styles and mental health of mother (independent variables) on sibling of autistic children mental health (dependent variable). Multiple logistic regression used to test the effect of parenting styles and mental health of mother in parallel on sibling of autistic children mental health.

Ethical Clearance (EC) issued by the Health Research Ethics Commission of The University of 'Aisyiyah Yogyakarta with No. 1338/KEP-UNISA/XII/2019.

## RESULTS

Characteristics of participants a total of 35 mothers and children who had autism siblings participated in the study. From [table 1](#), participants can be seen that 68.6% of children who have autism are male. Maternal age between 25-35 years and 36-45 years amounted to 42.8%. Most children who have autism are aged 5-11 years.

From [table 2](#), most mothers apply authoritative or democratic parenting in daily childcare, namely as many as 23

mothers or 65.7%, mothers who have good or normal mental health as many as 14 mothers or 40.0%, Most children have good or normal mental health, which is as many as 16 children or 45.7%, Maternal Parenting Relationship with Children's Mental Health

Parenting Style of Mother with child who has autism siblings result from chi

square test showed that parenting styles didn't affect mental health of sibling from autism children with p value 0.156 ( $p > 0.05$ ). Mothers with non-authoritative style in daily care increase the risk 2.26 times more likely affected mental health of sibling of autistic children (RP: 2.26,  $\alpha$ : 0.05, CI: 95%).

The Chi-square test (table 3) showed

there was a significant link between the mental health of the mother and the Mental Health of Children Who Have Autism Siblings with a p. 0.032 score. Mothers suffering from mental health problems increased their risk 2.5 times affecting children with autism (RP: 2.5,  $\alpha$ : 0.05, CI 95%).

In the multiple logistic regression analysis (table 4), first model variable mother parenting style did not have a significant influence on maternal mental health, and sibling of autistic children mental health, with p-value of 0.084. Second model variable mother mental health had a significant influence on sibling of autistic children mental health with p-value of 0.016. Third model variable mother parenting style model did not have a significant influence on the sibling of autistic children mental health with p-value of 0.176 but mother mental health had a significant influence on sibling of autistic children mental health with p-value of 0.031.

**Table 1. Characteristics of participant identity.**

Characteristic	Frequency	%
<b>Gender of child who has autism siblings</b>		
Male	24	68.6
Female	11	31.4
<b>Age of mother</b>		
25-35 years old	15	42.8
36-45 years old	15	42.8
46-55 years old	5	14.4
<b>Age of child who has autism siblings</b>		
5-11 years old	26	74.2
12-16 years old	8	22.8
17-25 years old	1	2.8

**Table 2. The characteristics of participants are based on PSDQ, HADS, and SDQ.**

Characteristic	Frequency	%
<b>Mother's Parenting</b>		
<i>Authoritative</i>	23	65,7
<i>Authoritarian</i>	6	17,1
<i>Permissive</i>	6	17,1
<b>Mother's Mental Health</b>		
Normal	14	40,0
Borderline	12	34,3
Abnormal	6	25,7
<b>Mental Health Of Child Who Has Autism Sibling</b>		
Normal	16	45,7
Borderline	12	34,3
Abnormal	7	20,0

**Table 3. Chi-Square Test.**

	Child mental health				Total		P value	RP	CI 95%
	Normal		Abnormal		n	%			
	n	%	n	%					
<b>Mother's Parenting</b>									
Authoritative	13	56,5	10	43,5	23	100,0	0,156	2,261	0,796-6,419
Non-authoritative	3	25,0	9	75,0	12	100,0			
<b>Mother's mental health</b>									
Normal	10	71,4	4	28,6	14	100,0	0,032	2,500	1,177-5,039
Abnormal (Anxiety/depression)	10	71,4	4	28,6	14	100,0			

**Table 4. Multiple Logistic Regression.**

Variable	Model 1	Significan (p-value)	Model 2	Significan (p-value)	Model 3	Significan (p-value)
<b>Mother parenting style</b>		0,084				0,176
<i>Authoritative</i>	3.900				3.149	
<i>Non-authoritative</i>	(0.832-18.283)				(0.599-16.555)	
<b>Mother mental health</b>				0,016		0,031
Normal			6.250		5.466	
Abnormal			(1.399-27.925)		(1.171-25.500)	
<b>R<sup>2</sup></b>	0.119		0.223		0.283	
<b>N</b>	35		35		35	

as more confidence, less disruptive behavior, and have good self-control.<sup>5</sup> Authoritarian style considered giving negative outcome to children, like lack of self-control, more disruptive behavior, and lack of confidence in peers.<sup>5,6</sup> The permissive style can make children frustrated, can't show self-control of themselves, and not responsible, permissive also affected children emotionally.<sup>17</sup>

The finding of this study stated that the parenting styles of the mother were not significantly affect sibling of autistic children's mental health. In line with the study by Rezvan and D'Souza (2017), parenting styles were not significantly affected the mental health of children.<sup>18</sup> There was no significant relationship between behavior problems and the emotions of children with any type of parenting style.<sup>19</sup> But the contrast with the study from Hanafi and Thabet (2018)<sup>5</sup>, a study in China showed the same result.<sup>20</sup> Authoritarian style aggravates children's mental condition (symptomatic problem, self-function, increase the risk for themselves and others, and psychological well-being).<sup>21,22</sup> Behavior control and abusive behavior related to children's mental condition even though the correlation was low.<sup>23</sup>

2. Mental Health Mother with Mental Health Child Who Has Autism Siblings  
Mental health conditions are affected by biology, psychology, behavior, social- economy status, environment, and employment status factors.<sup>24</sup> The increment of anxiety and depression risk higher on mother with child autism compared with mother with typical development children.<sup>25</sup> This study showed mother with anxiety and

depression problem was 60%, which consist of 34.4% borderline and 25.7% abnormal. The result from this study showed that there was a significant relationship between the mental health of mother and sibling of autistic children mental health. Mothers with mental health problems affecting children's development, including brain development, behavior, hypothalamic-pituitary-adrenal function, and decrease of brain volume also affected the function of the amygdala was found.<sup>26</sup> A mental health problem on mother creates negative interaction between mother and child/ sibling of autistic children. The negative interaction affected children's oxytocin system. Higher levels of oxytocin are related to pro-social skills, reduction of stress, and sensitive parenting, while the lower level of oxytocin causes high internalizing and externalizing problems in children.<sup>27</sup> Negative interaction also creates a toxic environment for children, this persistent condition will activate the stress response of children, increment of stress hormone will damage the neurology structure of children.<sup>28</sup>

The result from this study in line with a study undertaken in Spain, risk of children having mental health problem increase when the mother has a mental health problem.<sup>29</sup> The mental health of the mother affected pro-social behavior, behavior problem, hyperactivity, and problem with peers on the sibling of autistic children.<sup>30,31</sup>

The poor mental health of parent-related with mental health problem on children aged between 4-15 years old.<sup>11</sup> The study from Cents et al (2013)

showed a similar result, psychological function of children significantly different between mother with and without depression.<sup>32</sup>

Study limitation in this study a difficulty faced is the difficulty of finding respondents. Where the respondents of this study who met the inclusion criteria were mothers who had children with autism and children with normal development and growth. The second difficulty was licensing with the school to conduct research with mothers of children with autism. The next difficulty is that mothers are not willing to ask questions about economic conditions and privacy, such as household income, occupation, and other privacy matters.

## CONCLUSION

The mental health of the mother was one of the factors affecting the mental health of siblings of autistic children, the mother with mental health problems increases the risk 5.5 times affected sibling of autistic children mental health. Factors affecting mother acceptance were professional support, autism family group, and family support. The coping mechanism that the mother used was positive thinking, joint activity with the child, and understanding the child. Acceptance and coping mechanism of the mother related to the stress level of the mother. Finding from this study can be a reference that mothers and siblings of autistic children are vulnerable to mental health problems.

## CONFLICT OF INTEREST

The authors declare no conflict interest.



## FUNDING

The study was privately funded by Rizkiana Putri.

## ETHIC APPROVAL

This research ethics approval was approved by the health research ethics committee of the University 'Aisyiyah Yogyakarta, No. 1338/KEP-UNISA/XII/2019.

## AUTHOR CONTRIBUTION

Conceptualization: Rizkiana Putri; validation: Elsy Maria Rosa, Djauhar Ismail, Ekawaty Lutfia Haksari; format analysis: Elsy Maria Rosa, Rizkiana Putri, Djauhar Ismail, Ekawaty Lutfia Haksari; writing-original draft preparation: Rizkiana Putri; writing-review and editing: Elsy Maria Rosa.

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