

ORIGINAL ARTICLE

The relationship between children's emotional development tasks fulfilment and Strength and Difficulties Rutter Questionnaire assessment on elementary school-aged children's mental health

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Abstract

Objective: To assess the emotional development of school-aged children.

Method: The descriptive, analytical study was carried out on children of elementary schools in the Semarang City area in January 2022. Included were children aged 6-12 years with active elementary school status. Data was collected using the 25-item Strength and Difficulties Rutter Questionnaire. The questionnaire was filled manually by the subject along with the guardian or teacher. Data was analysed using SPSS 20.

Results: Of the 326 children, 174(53.21%) were girls and 153(46.79%) were boys. Overall, 171(52.3%) subjects were aged <10 years, while 156(47.7%) were aged 10-12 years. There were 295(90.21%) children with normal prosocial behaviour, 206(63%) with normal emotional status, 264(80.73%) with normal conduct, 133(40.67%) with normal hyperactivity level, and 91(27.83%) with normal equation with peers.

Conclusion: Different domains of the Strength and Difficulties Questionnaire showed varying degrees of pro-social behaviour, emotional status, conduct, hyperactivity level and peer interaction among the subjects.

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Introduction

Mental health comprises emotional, psychological and social elements that can be assessed through interpersonal relationships, behaviour and coping approaches, positive self-concept and emotional stability.¹

According to the World Health Organisation (WHO), depression globally affects people aged 15-44 years regardless of gender, but more than 264 million people of all ages experience depression, which can even lead to suicide.²

The prevalence of emotional mental disorders in Indonesia, as indicated by symptoms of depression and anxiety, is 6% for ages 15 years and over, accounting for around 14 million people. The prevalence of severe mental disorders, such as schizophrenia, is 1.7 per 1,000 population, or about 400,000 people. Based on the 2018 data from the Indonesian Ministry of Health, Central Java is one of the provinces with a high number of people with severe mental disorders.³

Depression-related problems can become chronic, and lead to the individual's inability to carry out activities of daily life.⁴ An individual is said to be mentally healthy if he

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is able to control himself in dealing with stressors in the surrounding environment without any physical and psychological pressure, both internally and externally.⁵

School is a formal educational institution that helps children in being able to develop their overall social and intellectual potential. Not infrequently, psychological or psychological problems that occur in children at school are either not seen by the counselling teacher, or are not reported. Children with emotional and behavioural problems are vulnerable to experiencing obstacles in their daily lives. The behaviour pattern varies greatly, depending on the experiences early in life, ranging 6-12 years of age. The current study was planned to assess the emotional development of school-aged children.

Subjects and Methods

The non-experimental, descriptive, quantitative, analytical study was conducted on school children, of elementary schools in the Semarang City area in January 2022, and comprised children aged 6-12 years with active elementary school status. The sample size was calculated using the Slovin formula⁶ in which a greater error rate means a smaller sample.⁷ Purposive sampling technique was used to collect the study participants. The children who did not get parental consent or were not in school on the day of data collection were excluded.

Data was collected using the 25-item Strength and Difficulties Questionnaire (SDQ)⁸ which was filled out by

the subjects manually while being accompanied either by their guardian or teacher.

SDQ has 5 domains; prosocial (Pr), hyperactivity (H), emotional (E), conduct (C) and relationships with peers (P). The Rutter questionnaire was translated into Indonesian and has been used nationally by the federal Ministry of Health to detect emotional and behavioural problems in children and adolescents.⁸

The respondents answered each statement on a Likert scale, ranging from never true=0 to always true=2. The total score was then divided into three categories, normal (0-13), borderline (14-15) and abnormal categories (16-40).

Data was analysed using SPSS 20. Univariate analysis was used to determine the frequencies and percentages of each variable.⁹

Results

Of the 326 children, 174(53.21%) were girls and 153(46.79%) were boys. Overall, 171(52.3%) subjects were aged <10 years, while 156(47.7%) were aged 10-12 years. There were 5(1.53%) children with a history of mental disorder, while 10(3.06%) had a family history of such disorders (Table 1).

There were 295(90.21%) children with normal pro-social behaviour, 206(63%) with normal emotional status,

Table-1: Characteristics of the participants (n=327).

Age (years)	n (%)
6	9 (2.75)
7	55 (16.82)
8	54 (16.51)
9	53 (16.21)
10	52 (15.90)
11	53 (16.21)
12	51 (15.60)
Total	327 (100)
Gender	
Boys	153 (46.79)
Girls	174 (53.21)
Total	327 (100)
Residence status	
Biological parents	288 (88.07)
Big family	35 (10.70)
Others	4 (1.22)
Total	327 (100)
History of mental disorder	
No	322 (98.47)
Yes	5 (1.53)
Total	327 (100)
History of mental disorders in family members	
No	317 (96.94)
Yes	10 (3.06)
Total	327 (100)

Table-2: Data stratification according to SDQ domains assessed.

Mental Health	Child	n (%)
Pro-Social Behaviour	Normal	295 (90.21)
	borderline	23 (7.03)
	Abnormal	9 (2.75)
Emotional problems	Normal	206 (63)
	borderline	33 (10.09)
	Abnormal	88 (26.91)
Conduct problems	Normal	264 (80.73)
	borderline	36 (11.01)
	Abnormal	27 (8.26)
Hyperactivity	Normal	133 (40.67)
	borderline	81 (24.77)
	Abnormal	113 (34.56)
Problems with peers	Normal	91 (27.83)
	borderline	150 (45.87)
	Abnormal	86 (26.30)

SDQ: Strength and Difficulties Questionnaire.

264(80.73%) with normal conduct, 133(40.67%) with normal hyperactivity level, and 91(27.83%) with normal equation with peers (Table 2).

Discussion

The emotional development tasks of elementary school age children are closely related to their mental health, which is assessed through SDQ.¹⁰ The screening tool is designed to assess emotional and behavioural problems in children and adolescents, covering areas such as emotional symptoms, hyperactivity or inattention, conduct problems, peer relationship problems, and prosocial behaviour.¹¹ It has been used to measure emotional and behavioural problems, as well as prosocial behaviour in children and adolescents.¹² It is a viable way to address mental health in general practice, demonstrating its relevance in assessing children's mental health.¹³

The prevalence of prosocial behaviour was the most common in the current respondents, underscoring the significance of understanding the factors influencing such a behaviour in children. Previous research has shed light on its multifaceted nature.¹⁴

For instance, the role of mother-child, father-child, and teacher-child relationships in influencing preschool children's prosocial behaviour has been highlighted.¹⁵ This emphasises the potential impact of familial and educational environments on the development of prosocial behaviour in children.¹⁶

Additionally, the SDQ has been used to predict mental disorders in preadolescence, and has demonstrated its validity in identifying mental health problems in children.¹⁷ Also, the SDQ has been used to assess emotional and behavioural problems in children with growth hormone

deficiency, highlighting its applicability in clinical settings to evaluate psychosocial problems.¹⁸ The SDQ has also been used to calculate emotional/behavioural problem scores among children, emphasising its role in evaluating children's emotional wellbeing.¹⁹

It has been emphasised that policymakers should consider responses to address short-term disruptions to children's mental health services while laying the foundations for improving children's mental health services in the long term.²⁰ The recent coronavirus disease-2019 (COVID-19) pandemic led to different psychological and behavioural changes among children following school closures, further emphasising the importance of assessing and treating children's mental health.²¹

Most of the current respondents' emotional problems were in the normal category, underlining SDQ's value as a tool for evaluating emotional and behavioural problems.

Most of the current respondents were in the normal category in terms of their conduct. Research has shown that poor emotional competence in children, including difficulties in understanding and regulating emotions, is linked to the emergence of behaviour or conduct problems.²² Various factors influence children's emotions and behaviours, highlighting the importance of considering such factors in intervention strategies to support children facing challenges.²³ Studies have also demonstrated that children's emotion regulation faculties serve as a mediator linking caregivers' emotion socialisation and children's behaviour patterns.²⁴

Emotional development in school-aged children, including emotional awareness, expression and regulation, has been emphasised for its significance in children's mental health, academic success and social development.²⁵ Additionally, the bidirectional model of cognition-emotion interaction in the development of self-regulation has highlighted the reciprocal and interactive relation between executive control of thought and behaviour, and bottom-up influences of emotion and stress reactivity.²⁶ Research has also indicated that parents who acquire skills in regulating their children's emotions contribute to better behaviour and conduct in preschool children.²⁷

Most of the current respondents were in the normal category in terms of hyperactivity. Specific developmental pathways have been identified, where difficulties in emotion recognition contribute to the development of internalising behaviours, and early hyperactivity may contribute to the development of early hyperactivity difficulties, emphasising the simultaneous development of these processes over time.²⁸ Enhancing early hyperactivity

knowledge and regulation early in children's development have been linked to the development of social skills and their influence on children's academic performance and peer relationships.²⁹

Findings have highlighted the interrelatedness of early hyperactivity and cognitive processes within the parenting context and their potential influence on emotion socialisation behaviours.³⁰ Additionally, evidence has confirmed that fathers have a significant influence on their children's social, behavioural, emotional and cognitive development.³¹ Children's verbal ability and behavioural synchrony have been found to contribute to emotion regulation and behaviour problems for preschool-age children.³²

Based on the current results, most subjects were in the normal category on 4 SDQ scales which was in line with literature.³³ Children at this age begin to enter the real world by completing their responsibilities, causing changes in emotions, behaviour and relationships with new friends.³⁴

This shows that children have high concern for other people around them. Prosocial behaviour is an important element for developing social relationships. In children, the need for recognition in groups and the need for more intimate relationships with peers increases, and prosocial behaviour becomes something important for children to have.³⁵

With respect to the problems with peer's category, most of the respondents were in the borderline category. A study showed that people felt comfortable interacting with other people, and in feeling part of a group.³⁶ At a young age, there are elements like bullying that makes children feel being rejected or ignored, and this can make them feel lonely and hostile.³⁷ Challenges in life, including challenges at school, become greater and children increasingly internalise them in the form of emotional problems, and actualise them in the behaviour of their peers.³⁸ The formation of children's attitudes, behaviour and social behaviour is largely determined by the influence of the environment and their peers.³⁹ However, a study reported that whether or not individuals are influenced by their peers depends on the individual's perception of their group.⁴⁰

Conclusion

Different SDQ domains showed varying degrees of prosocial behaviour, emotional status, conduct, hyperactivity level and peer interaction among the subjects. Prevention needs to be carried out through early assessment of all students using the SDQ tool.

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