

Relationship between Parent-Adolescent Interaction and the likelihood of Internalizing and Externalizing Problems Among Adolescents

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Abstract. Adolescence is a transition phase from childhood to adulthood, and it is characterized by several drastic changes, which increase vulnerability to internalizing and externalizing problems. Previous studies revealed that parents can guide adolescents in managing these crises by establishing warm, meaningful, and open interactions. Therefore, this study aims to examine the relationship between parent-adolescent interactions and the likelihood of experiencing internalizing and externalizing problems. This is a quantitative correlational study, which was carried out using 180 participants from six Junior High Schools in East Java, who were selected through simple random sampling. The two instruments used were the Parent-Child Interaction Questionnaire-Revised Child Version (PACIQ-R CH) and the Strength and Difficulties Questionnaire (SDQ). The simple linear regression analysis showed that parent-adolescent interaction has a significant effect on internalizing and externalizing problems. It was suggested that parent-adolescent interactions contributed to the likelihood of adolescents experiencing internalizing and externalizing problems. Building warm, meaningful, and open interactions with adolescents can assist them in understanding the adaptive way of expressing emotions and overcoming the drastic changes during the transitional period.

Keywords: externalizing problems, internalizing problems, parent-adolescent interaction

Interaksi Orang Tua-Remaja pada Masalah Internalisasi dan Eksternalisasi

Abstrak. Remaja sebagai masa peralihan mengalami berbagai perubahan drastis yang membuat mereka rentan mengalami masalah internalisasi dan eksternalisasi. Namun, orang tua dapat membimbing dalam mengelola krisis tersebut dengan menjalin interaksi yang hangat, bermakna, dan terbuka dengan remaja. Penelitian ini mengkaji hubungan antara interaksi orang tua-remaja dengan kemungkinan mengalami masalah internalisasi dan eksternalisasi. Penelitian kuantitatif korelasional ini melibatkan 180 partisipan dari enam Sekolah Menengah Pertama di Provinsi Jawa Timur yang direkrut berdasarkan *simple random sampling*. Dua instrumen yang digunakan dalam penelitian ini adalah Parent-Child Interaction Questionnaire-Revised Child Version (PACIQ-R CH) dan Strength and Difficulties Questionnaire (SDQ). Analisis regresi linier sederhana menunjukkan adanya pengaruh yang signifikan dari interaksi orang tua-remaja terhadap masalah internalisasi dan eksternalisasi. Ini menyatakan bahwa interaksi orang tua-remaja berkontribusi pada kemungkinan remaja mengalami dua masalah tersebut. Membangun interaksi yang hangat, bermakna dan terbuka dengan remaja diharapkan dapat membantu mereka memahami cara adaptif dalam mengekspresikan emosi dan mengatasi perubahan drastis selama masa transisi remaja.

Kata Kunci: masalah eksternalisasi, masalah internalisasi, interaksi orang tua-remaja

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Adolescence is a transition phase from childhood to adulthood and it is characterized by drastic physical, psychological, cognitive, emotional, and social changes (Adams, 2015). These drastic changes and crises can cause psychosocial problems, such as aggressivity, conflicts between attitudes and behavior, emotional instability and sensitivity, as well as engaging in risky behaviors (Santrock, 2011). Adolescence is also a developmental period where the initial symptoms of mental health problems appear (Trotman et al., 2013), especially the common internalizing and externalizing problems (World Health Organization [WHO], 2021).

Furthermore, based on a report by the WHO in 2021, adolescents aged 10-14 who experience internalizing and externalizing problems account for 3.6% and 3.1% of the world's population, respectively. These problems are some of the most common mental health challenges from 1990 until 2017 in the Indonesian population (Infodatin, 2019). Based on the Indonesian National Health Research (RISKESDAS), the trend shows an increased rate of internalizing problems from 5.7% in 2013 (Badan Penelitian dan Pengembangan Kesehatan Kementerian Republik Indonesia, 2013) to 9.8% in 2018 (Badan Penelitian dan Pengembangan Kesehatan Kementerian Republik Indonesia, 2018).

The Child and Adolescent Mental Polyclinic at the Hospital of Dr. Cipto Mangunkusumo (RCSM) collected data from

161 students who accessed mental health services at RCSM for six months in 2010. The results showed that 42.2% and 38.5% of the participants were included in the abnormal internalizing and externalizing problems category (Wiguna et al, 2016). The Indonesian National Health Research in the East Java Province in 2018 recorded that 6.82% of people aged 15 years or more experienced emotional challenges, as a form of internalizing problems. Furthermore, 5.28% aged 5 -24 years suffered injuries due to accidents or violence, a form of externalizing problems. Data on the prevalence of these challenges in the Indonesian population under the age of 15 is still scarce and not integrated well.

Based on the theoretical framework of Developmental Psychopathology, adolescents with internalizing problems have excessive control over emotions, thoughts, and behaviors. Meanwhile, others with externalizing problems have low control over emotions and thoughts expressed through antisocial behavior (Achenbach et al., 2017). Internalizing challenges are the effects of excessive control and are often in the form of social withdrawal, inhibition, and depression. They are also caused by various forms of anxiety that have direct consequences, limiting social experience and creating barriers to social and psychological adjustment in childhood (Madigan et al, 2013). Externalizing problems are the effects of low control, expressed in aggressive, impulsive, antisocial, and challenging norms (Marccone et

al., 2020; Zулnida, 2020). These challenges are characterized by behavioral patterns that tend to be social, aggressive or defiant, repetitive, and persistent (Oktaviana & Wimbarthi, 2014).

A previous study revealed that adolescents who experience internalizing and externalizing problems often show regression behavior or return to the early stages of development and always ask for help and attention from others (Asif & Rahmadi, 2017). They also experience a setback, as well as financial and emotional challenges impacting family relationships, academic achievement, and juvenile delinquency (Hammerton et al., 2019; Maksum & Arifin, 2019). These symptoms imminently appear at the age of 15 (Lijster et al., 2017; Rice et al., 2019), where they cause health problems (Jamnik & DiLalla, 2019), crime, poor social functioning (Copeland et al., 2018), and low productivity (Narusyte et al., 2017).

Several studies indicated that families and parents play an essential role in the vulnerability to experiencing internalizing and externalizing problems (Madigan et al., 2016; Wang et al., 2020), including parental divorce, family economic conditions, parents who are not able to regulate emotions, and lack of a role model (Luijten et al., 2021; Maksum & Arifin, 2019). Furthermore, parents play a central role in the family, especially in their interaction with adolescents. Buist et al. (2017) stated that the quality of *parent-adolescent interactions* determines the likelihood of developing these challenges. Adolescents who receive meaningful

support from their mothers tend to have low levels of aggression, delinquency, and social withdrawal, with a strong preventive tendency to experience internalizing problems (Nunes et al., 2013).

The quality of parent-adolescent relationships can be seen through the interaction between the two parties, which is full of warmth, meaningful, minimal conflict, and non-violent (Burgdorf et al., 2019; Pinquart, 2021). Therefore, this helps to promote adolescents to model warm and friendly interactions (Van Lissa et al., 2017). Lange et al. (2002) emphasized the two-way interaction based on conflict resolution and acceptance. These two aspects are essential for achieving good quality reciprocal parent-adolescent relationships through positive responses, being open, and accepting each other. This association helps to optimally manage emotional fluctuations, conflicts, and drastic changes. The parent-adolescent interaction in the Indonesian socio-cultural context tends to be hierarchical and reinforces parents to provide commanding direction with less room for reciprocal discussion.

Therefore, this study aims to examine the relationship between parent-adolescent interactions and the likelihood of experiencing internalizing and externalizing problems in the Indonesian context to fill the gap of the insufficient empirical evidence in an Asian context. A significant influence was hypothesized between the association and

internalizing and externalizing problems. Adequate, warm, and meaningful parent-adolescent interactions are expected to prevent adolescents from developing these problems.

Method

This quantitative correlational study measures the relationship between parent-adolescent interactions and the likelihood of experiencing problems. Furthermore, this study was declared ethically feasible by the Faculty of Medicine Ethics Council, University of Muhammadiyah Malang with reference number E.5.a/048/KEPK-UMM/III/2022. A permit was also obtained from each school after ethical clearance was received. This allowed the school's representatives to directly evaluate

and understand the procedure before consenting to be involved in the process.

Participants

The population consisted of 180 Muhammadiyah Junior High Schools in East Java from the Muhammadiyah Central Executive Board of Primary and Secondary Education Webpage list. Furthermore, the samples were selected using simple random sampling based on the location in East Java Province using randomizer.org. After the selection, a total of 256 male (50.3%) and 253 female (49.7%) students aged 12-15 from the selected six Muhammadiyah Junior High Schools in East Java Province participated in this study. Table 1 summarizes the descriptive data of the participants.

Table 1

Participants Demography

Baseline Characteristic	<i>n</i>	%
Gender		
Male	256	50.3
Female	253	49.7
Age		
12	97	19.1
13	213	41.8
14	160	31.4
15	39	7.7
Live with		
Parents	280	55
Father	17	3.3
Mother	80	15.7
Brother/sister	31	6.1
Friend	6	1.2
Alone	4	0.8
Others	91	17.9

Note. *N* = 509.

Procedure

Data collection was carried out during the COVID-19 pandemic. Furthermore, the school provided consent to participate in specified schedules and modalities for the process. The students filled out the study instruments online or in printed forms based on the directions and health measures implemented in the schools. The study team and teachers accompanied them throughout the data collection process. Each student filled out Questionnaire-Revised Child Version (PACHIQ-R Ch), Strengths and Difficulties Questionnaire (SDQ), and demographic data consisting of age, gender, and residential status. Data collection was carried out from 23 November to 1 December 2021.

Instruments

The Parent-Child Interaction PACHIQ-R Ch consisted of 25 items measuring conflict resolution and acceptance (Lange et al, 2002) and was translated into Indonesian by Krisnana et al (2021). Each item has five responses ranging from (1) never to (5) always. Furthermore, the scoring depends on the nature of favorable or unfavorable items, and the coefficient of Cronbach's Alpha PACHIQ-R Ch was .871.

The SDQ consisted of 25 items that measure internalizing problems (10 items), externalizing problems (10 items), and prosocial behavior (5 items) (Goodman et al, 2003; Goodman, 1997). The internalizing problems subscale measured emotional symptoms (5 items) and peer relationship challenges (5 items). Meanwhile, the

externalizing problems subscale measured conduct problems (5 items) and hyperactivity/inattention (5 items) (Goodman et al, 2010).

The SDQ has been translated into Indonesian and is a commonly used instrument in studies and clinical assessments for children and adolescents (Wiguna & Hestyanti, 2012; Tjhin Wiguna et al, 2016). Each item provided a range of choices, namely (0) never, (1) rarely, and (2) often, and the scoring system was adjusted to favorable or unfavorable items. The Cronbach's Alpha coefficient of internalizing and externalizing problems subscale was 0.602 and 0.534, respectively.

Data analysis

Descriptive analysis was carried out to identify incomplete data on demographic, parent-adolescent interactions, as well as internalizing and externalizing problems. From a total of 515 students, there were six invalid data, which did not follow the criteria due to outliers. Subsequently, six of them were excluded from the process, and the inferential analysis was performed using simple linear regression.

Results

The sample population consisted of 509 students from six Muhammadiyah Junior High Schools in five cities in East Java Province. Furthermore, the data obtained were analyzed to determine the impact of parent-adolescent interactions on the likelihood of developing internalizing and externalizing problems.

Table 2

Categorization of Research Variables

Variable	High		Medium		Low	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Parent-Adolescent interaction	266	52.2	235	46.2	8	1.6
Internalizing problems	35	6.9	303	59.5	171	33.6
Externalizing problems	6	1.2	239	46.9	264	51.9

Table 2 shows a categorization of three variables in this study, and most of the participants were in the high (52.3%) and moderate (46.2%) parent-adolescent interaction. This indicated that the students have a good and meaningful relationship

with their parents. Meanwhile, 6.9% and 1.2% were in the high internalizing and externalizing problems category. The results showed that most of the participants were categorized into medium or low levels of the problems.

Table 3

Parent-Adolescent Interaction and Internalizing Problems

Variable	Unstandardized Coefficient		Standardized Coefficient	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> ²
	<i>B</i>	<i>SE</i>	β					
Parent-adolescent interaction	-.082	.010	-.347	-8.323	.000	69.278	.347	.12

Based on Table 3, there is a significant negative effect between parent-adolescent interactions and internalizing problems ($p < .001$, $\beta = -.347$). This finding indicates that adequate, warm, and meaningful associations correspond with a lower likelihood of experiencing these challenges, and the regression equation variable

shows $y = 69.278 - .082x$. Furthermore, the likelihood of experiencing internalizing problems increased by 0.082 when adolescents do not have adequate, warm, and meaningful interaction with their parents. The results showed that internalizing problems can explain 12% of the variability of parent-adolescent interactions.

Table 4

Parent-Adolescent Interaction and Externalizing Problems

Variable	Unstandardized Coefficient		Standardized Coefficient	<i>t</i>	<i>p</i>	<i>F</i>	<i>R</i>	<i>R</i> ²
	<i>B</i>	<i>SE</i>	β					
Parent-adolescent interaction	-.065	.009	-.315	-7.477	.000	55.901	.315	.099

Table 4 shows that there is a significant negative effect of parent-adolescent interactions on externalizing problems ($p < .001$, $\beta = -.315$). These findings indicate that adequate, warm, and meaningful parent-adolescent interactions correspond to a lower likelihood of experiencing externalizing problems, and the regression equation for the variable was $y = 55.901 - .065x$. Therefore, when adolescents have adequate, warm, and meaningful interaction with their parents, the potential was 0.065 times lower. The results showed that externalizing problems can explain up to 9.9% of the variability of parent-adolescent interactions.

Discussion

Mental health problems tend to be divided into internalizing and externalizing (Christie et al., 2017), and are expressed through maladaptive behaviors, where family is one of the influential contributing factors (Pradnyawati & Ardjana, 2015). Previous studies revealed that closeness to the family can reduce the risk of teenagers experiencing behavioral challenges. During COVID-19, the Indonesian government applied social restrictions and appealed to people to conduct more activities at home. Therefore, teenagers often spend more time and become closer to their relatives.

The majority of the participants were in the moderate category of internalizing problems and can keep their feelings to themselves since

they are afraid of being ostracised by others. Externalizing problems are maladaptive behaviors directed outside of adolescents, such as breaking the rules, aggression, impulsivity, and defiance (Forns et al., 2018). This study shows that the majority of the students experienced these challenges in the low category. Furthermore, this indicates that adolescents can think before acting, have good emotional regulation skills, obey the rules, avoid disturbing other people's behavior, and are sensitive to the surrounding environment.

A previous study stated that internalizing and externalizing symptoms are interrelated (Wiggins et al., 2015). This current study revealed that more adolescents experienced internalizing problems, and this was supported by Danielson et al. (2021). Low externalizing problems are caused by social restrictions during the COVID-19 pandemic, which limits adolescents' social interactions with other people outside their family members. Moreover, the parent-adolescent association is a response to the management of conflict and acceptance of different views (Lange et al., 2002). In this study, the majority of the students have a high level of interaction, which is optimal for resolving conflicts and accepting differences. It also indicates that the quality of parent-adolescent interactions was warm, secure, trusting, affectionate, and responsible. The relationship encouraged adolescents to feel safe and comfortable when expressing negative feelings or conflicting opinions with their parents.

The results showed the influence of parent-adolescent interaction on internalizing and externalizing problems. The correlation of study variables has a negative effect, indicating that higher interaction corresponds to a lower possibility of these problems. This is consistent with previous studies, which suggested that parents play an essential role in the possibility of adolescents experiencing internalizing and externalizing challenges (Georgiou & Symeou, 2018; Wang et al., 2016). Cross-cultural comparisons between Indian and Dutch adolescents also indicate similar findings, where the quality of relationships can reduce susceptibility to these problems (Buist et al., 2017). Lack of parental warmth and protection can increase the risk of experiencing internalizing and externalizing problems (Kerr et al., 2012; Pascuzzo et al., 2021).

Building a warm, meaningful, open, and secure interaction between parents and adolescents requires good communication skills, especially in resolving conflicts. Bersamin et al. (2017) reported communication, interaction, flexibility, attachment, personality harmony, and cooperation are needed in the family to resolve conflicts optimally and establish warm and meaningful relationships between members. Furthermore, good communication patterns can reduce the risk of experiencing internalizing and externalizing problems among adolescent family members (Elgar et al., 2013; Molleda et al., 2017). The relationship between husband and wife also helps to form a positive

quality by modeling warm and positive interaction patterns (Goldberg & Carlson, 2014).

Parent-child interaction can form mutual bonds, which allow parents to supervise adolescents without making them feel constrained. Adolescents often feel trusted and safe to express emotions in adaptive ways, and parents can teach good and bad values through association. They can also help children avoid bad behavior, such as bullying (Krisnana et al., 2021), and provide good advice or direction. Furthermore, the interaction of parents and adolescents helps to optimize the development of emotional intelligence (Santrock, 2011).

The warm and meaningful parent-adolescent interactions allow parents to act as the closest ally who intensely interact with their adolescents from childhood. Parents can assist their children in forming adaptive mental development to deal with problems by setting model interactions. Other contributing factors that affect the effectiveness of parent-child interaction include age, gender (Kerr et al., 2012; Pascuzzo et al., 2021), socioeconomic status, and Adverse Childhood Experiences (ACEs) (Anderson et al., 2022). Affectionate parental relationship enables adolescents to learn about love, acceptance, respect, and discipline. It also helps them to gain self-confidence, set excellent examples, and build a loving home environment, despite the additional circumstances (Gunawan, 2013). Adolescents can avoid problems through adaptive means, comprehend warm and lasting friendships, and govern their behavior based on social environment norms.

Several other factors make adolescents more prone to internalizing problems, including gender and peer relations (Luijten et al, 2021). Previous studies showed that female adolescents are more susceptible to these challenges compared to males. Furthermore, the poor quality of peer relations tends to increase the possibility of internalizing problems in adolescents. Intelligence is a personal factor that affects the possibility of experiencing internalizing problems (Zulnida, 2020).

Several studies revealed that a dysfunctional family increases the risk of externalizing problems among adolescents (Mastrotheodoros et al, 2020; White & Renk, 2012). Moreover, psychosocial factors are interactions between psychological and social conditions, such as poverty, stress, unplanned pregnancy, and consumption of illegal drugs (Zulnida, 2020). Culture and norms as social factors are a source of values, attitudes, and social rules applied in everyday life. They also increase the vulnerability to developing externalizing problems, especially when adolescents are not behaving accordingly. Biological factors that affect the occurrence of these problems include genetics and physical health conditions. The consumption of drugs, alcohol, and cigarettes by pregnant women interferes with nerve development and fetal health, thereby increasing the possibility of externalizing problems at a later stage of development.

This study highlighted the role of families, especially parents, in the likelihood of internalizing and externalizing problems among Indonesian adolescents. The sample population consisted of early adolescents, who tend to be at the starting point for symptoms. The limitation is the nature of the cross-sectional method used, which was unable to provide evidence of causality. Furthermore, the study instrument used in measuring parent-adolescent interactions was only from the *adolescent's* point of view. The reliability coefficient on the SDQ subscale was included in the moderate category, and this can be a concern for future studies on the adolescent population. Data were also not collected on the availability and accessibility of adolescents to interact directly with their parents daily.

Conclusion

This study examined the relationship between parent-adolescent interactions on the likelihood of experiencing internalizing and externalizing problems. The results showed that the association influences the risk of experiencing these problems. Furthermore, higher levels of interaction can reduce the likelihood of the challenges, and vice versa.

Suggestion

This study adds relevant information to Indonesia's etiology of adolescent mental health. It also emphasized the importance of parent-adolescent interactions in preventing internalizing and externalizing symptoms.

Therefore, parents must invest in building and improving positive interactions with their children. A warm, meaningful, and open interaction can be accomplished by asking the adolescents to tell stories about their activities. This is expected to help them recognize and express unpleasant emotions or experiences to their parents in adaptive ways.

Future studies are advised to collect data on the status of parents who are still alive to corroborate the findings. The PACHIQ-R P can be used to confirm the interaction of parents and adolescents from both points of view. For the SDQ subscale, psychometric attributes for the early adolescent population need to be reviewed.

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