

## Relationship between Paternal and Maternal Parenting Style with Internet Addiction Level of Adolescents

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### Abstract

**Objective:** Internet addiction has become a major problem worldwide, especially for adolescents. Adolescents are considered vulnerable and at risk of internet addiction due to the immature self-control, easy access, and flexible schedule. Parenting style has a significant influence on the incidence of internet addiction in adolescents. This study aimed to analyze the relationship between paternal and maternal parenting style toward internet addiction level of adolescents at one of junior high Schools in Surabaya, Indonesia.

**Method:** In this cross-sectional study, a total of 114 adolescents (44 boys and 70 girls) aged ranging from 12 to 15 in a junior high school in Surabaya, Indonesia, were recruited by stratified random sampling method in November 2019. The Internet Addiction Test (IAT) and Parental Authority Questionnaire (PAQ) were used to measure internet addiction level, and maternal and paternal parenting style of adolescents. The data were analyzed using Pearson correlation and multiple regression tests with IBM SPSS Statistics 25 to adjust the relationship between paternal and maternal parenting style toward internet addiction level of adolescents.

**Results:** a total of 77.2% of adolescents were internet addicts and the majority experienced 'mild' internet addiction level (52.60%). Furthermore, the Pearson correlation results indicated that paternal permissive and authoritarian parenting styles were positively correlated with internet addiction level of adolescents. The multiple regression analysis results indicated that paternal permissive parenting style significantly predicted adolescents' internet addiction level.

**Conclusion:** This study highlighted the significant role of paternal permissive and authoritarian parenting styles among adolescents' internet addiction.

**Key words:** *Authoritarianism; Internet Addiction; Permissiveness; Parenting*

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Over the past few decades, the internet has become an inseparable part of many people's lives. The internet has become an integral part of our daily activities, including social, economic, educational, and lifestyle. The internet is a technology that can facilitate people to access a wide variety of sources of information easily. Regarding its beneficial use, excessive use of the internet can cause the disturbance of social, health, and academic in children and adolescents (1). Adolescents are considered vulnerable and at-risk to become internet addicts due to immature self-control, easy access, and flexible schedule (2). Adolescents use the internet to perform their school tasks, entertainment, recreation, social media, etc. Data regarding the comparison of internet addiction prevalence in each country is still not yet available. A previous meta-analysis study among 31 nations, get results of 6.0% global prevalence of internet addiction. The highest prevalence was in the Middle East, while the lowest was in Northern and Western Europe (3). Internet addiction is commonly higher in Asian adolescents than in the US and Europe (4). Internet usage penetration rate in Indonesia increases from year-to-year. In 2017 the increase of internet users was 8% to 143.26 million people that equivalent to 54.68% of the total population (5). Previous studies have highlighted the dangers of excessive use of the internet against adolescents associated with other psychiatric disorders. Internet addiction can cause damage in a series of social, physical, and mental complications (6) and inversely associated with quality of life (3). It's important to identify the risk and protective factors against internet addiction to support the growth and development of children and adolescents (7). During adolescence, parents have an important role in supervising and managing children's free time to avoid internet addiction. Quality communication between parents-children on internet usage can significantly reduce the compulsive internet use in a child. The quality of communication can be affected by parenting style (8). Parenting style is one of the dominant factors that can affect the habits, lifestyle, and behavior of the children (9). Parenting style is defined as a constellation of parents' attitude, the behavior of parents towards children, and emotional climate in the expression of parents' behavior. It includes the goal-directed behaviors (e.g., parenting practices) and non-goal-directed behaviors (e.g., gestures, change in tone voice, spontaneous expression) (10). There are three types of parenting styles (i.e., authoritative, authoritarian, and permissive) (11). The positive indicators of parenting style are negatively correlated with internet addiction and vice versa (12). Previous studies still have shown the variation and inconsistent result of the relationship between parenting style and internet addiction. Most studies showed that authoritarian and permissive parenting style are positively correlated with compulsive internet use (9, 13, 14). Adolescents in junior high

school are in the category of vulnerable and at risk of internet addiction due to immature self-control (2). Although there were several studies have been conducted on parenting styles toward internet addiction of adolescents, there are still very few studies that different parenting styles from both father and mother's perspective toward internet addiction level of the adolescents. Therefore, it is important to understand the relationship between paternal and maternal parenting styles within adolescents' internet addiction. This study aimed to examine the relationship between various types of paternal and maternal parenting styles (permissive, authoritarian and authoritative) with internet addiction levels among adolescents in one of the junior high Schools in Surabaya, Indonesia.

## Materials and Methods

### Research Design

This research was an analytic observational study with a cross-sectional design. Paternal and maternal parenting styles of adolescents are considered as the independent variables, while the internet addiction level of the adolescent is the dependent variable.

### Participants

A total of 114 students in one of the junior high Schools in Surabaya Indonesia took part in this study. Participants are recruited by the stratified random sampling method. The sample included in this study were seventh, eighth, and ninth-grade students. The inclusion criterion was a student aged 12-15 years old, raised by both parents, and have internet access.

### Procedure

Before distributing the questionnaire, the participants received an explanation about the study objectives and instructions. The teachers are asked to sign an informed consent form as a guardian of students. After that, the participants were asked to complete the demographic questionnaire and specify their age, class, and gender, then complete the Internet Addiction Test (IAT) and Parental Authority Questionnaire (PAQ).

### Instrument and Questionnaire

Internet Addiction Test (IAT): IAT was developed by Young. The psychometric properties of the IAT show that it reliable and valid measure, and has been widely used in research on Internet addiction (15). There are 20 questions assessed the level of internet addiction using a 6-point Likert scale from 0 (never) to 5 (always), based on four symptoms of internet addiction (i.e., preoccupation, low self-control, neglect of work, rejection in social life). The result of internet addiction level is measured by adding up the total score of each question. Internet addiction levels were classified into four categories. If the total score was less than 30, the respondents were classified as none or not experiencing internet addiction. If the total score was 31-49, the respondents were classified as mild internet addiction. If the total score was 50-79, the respondents were

classified as moderate internet addiction. If the total score was 80-100, the respondents were classified as severe internet addiction. The questionnaire has been adapted, translated into the Indonesia version, and tested for its validity and reliability by Ramadana (16), and the study showed good reliability and validity for the scale with Cronbach's alpha of 0.98 (16).

Parental Authority Questionnaire (PAQ): PAQ developed by Buri. The psychometric properties of the PAQ show it was a reliable and valid measurement and has been widely used in research on parenting style (17). There are 30 questions assessed to measure parenting style in two points of view (father and mother) using a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). And each type of parenting style is measured with ten items questions. The score of each type of parenting style is measured by adding up the total score of each question. The score is ranged from 10-50. The questionnaire has been adapted, translated into the Indonesia version, and tested for its validity and reliability by Sinatryani et al. (18), the study showed good reliability and validity for the scale with Cronbach's alpha more than 0.7 (18).

**Statistical Analyses**

The analysis of the data is carried out using IBM SPSS software (version 25). A univariate analysis was conducted on socio-demographic characteristics and internet addiction level of adolescents. Data were presented as frequency and percentage for qualitative. The total score of each paternal and maternal permissive, authoritarian, authoritative parenting style is inserted as an independent variable. And the total score of Internet Addiction Test (IAT) is inserted as a dependent variable. The Pearson correlation coefficient and multiple regression analysis are carried out to determine the predictive factors from paternal and maternal parenting styles that contribute to adolescents' internet addiction. The level of statistical significance was accepted to be lower than 0.05 .

**Ethical Approval**

This study was ethically approved by the Health Research Ethics Committee Universitas Airlangga School of Medicine No.306/EC/KEPK/FKUA/2019. All information of the respondents was kept confidential, and a consent form is obtained from the guardian of the students.

**Results**

The majority of respondents were female, 61.4% (70 out of 114 participants). The respondents were between the ages of 12-15 year, and most are aged 14. The prevalence of participants who experienced internet addiction symptoms is 77.2% (88 out of 114 participants). The majority of participants experienced a 'mild' internet addiction level (Table 1). In terms of the relationship between paternal and maternal parenting styles with internet addiction level of adolescents, the

result revealed a significant association between paternal permissive parenting style ( $r = 0.23, p < 0.01$ ), paternal authoritarian parenting style ( $r = 0.18, p < 0.05$ ) and internet addiction level of adolescents. It means that the higher the permissive and authoritarian parenting style applied by the father, the higher level of internet addiction suffered by their children. The strongest association was between paternal permissive parenting style and internet addiction level. The data were present in Table 2. The result of multiple regression analyses to determine the relationship between father's and mother's parenting style with internet addiction level were shown in Table 3. From the statistical result, father's and mother's parenting style with six subscales as an independent variable simultaneously predicted significant to the internet addiction level of adolescents ( $R = 0.346, R^2 = 0.120, p < 0.05$ ). These findings showed that the father's and mother's parenting style explained 12% of the total variance in the internet addiction level of adolescents. According to the standardized coefficient ( $\beta$ ), the strongest variable that predicted adolescents' internet addiction was the father's permissive parenting style ( $\beta = 0.429, p < 0.05$ ). Based on this finding, it was shown that the father's permissive parenting style as significant predictors explaining 12% of the total variance in the internet addiction level of adolescents.

**Table 1. Frequency Distribution of Sociodemographic and Internet Addiction Level of Adolescents (n=114)**

Parameters	Frequency	Percent
<b>Sex</b>		
Girl	70	61.40
Boy	44	38.60
<b>Age (years)</b>		
12	22	19.30
13	35	30.70
14	42	36.80
15	15	35.20
<b>Class</b>		
7	39	34.20
8	40	35.10
9	35	30.70
<b>Internet Addiction Level</b>		
None	26	22.80
Mild	60	52.60
Moderate	27	23.70
Severe	1	0.90

**Table 2. Relationship between Paternal and Maternal Parenting Styles (Parental Authority Questionnaire) with Internet Addiction Level of Adolescents (Internet Addiction Test)**

Parenting Styles	R	p
<b>Paternal</b>		
Permissive	0.23	0.01
Authoritarian	0.18	0.04
Authoritative	-0.10	0.24
<b>Maternal</b>		
Permissive	-0.14	0.13
Authoritarian	0.17	0.07
Authoritative	0.10	0.26

\*\*p<0.01, \*p<0.05

**Table 3. Multiple Regression Analysis for Predicting Internet Addiction Level of Adolescents**

Variable	B	SE	β	t	p
Constant	26.549	13.569		1.95	0.05
<b>Paternal</b>					
Permissive	1.28	0.52	0.42	2.45	0.02
Authoritarian	0.42	0.39	0.16	1.06	0.28
Authoritative	-0.01	0.53	-0.01	-0.03	0.97
<b>Maternal</b>					
Permissive	-0.80	0.55	-0.26	-1.45	0.14
Authoritarian	-0.01	0.43	-0.01	-0.01	0.98
Authoritative	-0.31	0.53	-0.11	-0.59	0.55
<b>R = 0.34</b>		<b>R<sup>2</sup> = 0.12</b>		<b>F = 2.42</b>	<b>p = 0.03</b>

B= unstandardized coefficient, SE = standard error, β= beta, t= t test.

### Discussion

The present study aimed to examine the relationship between paternal and maternal parenting style with internet addiction level of adolescents. Descriptive findings showed a high prevalence rate of internet addiction in adolescents, and the majority is in the 'mild' level. Overall the result showed that paternal and maternal parenting styles are simultaneously related to adolescent's internet addiction level. This result is similar to other previous studies (13, 14, 19) that found a significant relationship between parenting style and internet addiction. Interaction between parents and child has a strong influence on the psychological well-being and health of children's behavior, including internet behavior (19, 20). On the other hand, the result of this study showed that the father's permissive and authoritarian parenting style increases adolescent's internet addiction. Previous longitudinal studies found that father-child relationships significantly influences the risk behavior of adolescents beyond the mother-child relationship (20). In recent studies, the higher paternal permissive parenting positively associated with

internalizing and externalizing behavior problems of the children that affect their socio-emotional development (21, 22, 23). The previous studies mentioned that paternal permissive parenting negatively correlated with a child's emotion regulation, and it can increase the risk of a child developing a behavior problem (24). Other than that, previous studies conclude that the permissive parenting style has a positive impact on internet addiction of adolescents (14, 25-28). Parents who applied the permissive parenting style contributed to the confusion of their child's identity, and they do not control their children's behavior and let them freely. It can give impact to children become to depend on others people, difficult to control the impulse, look at the problematic situation with uncertainty and doubt, and feel that their parents can't give them support and advice in conflict. Children raised with this type of permissive parenting style have difficulty controlling the impulses that attract them and more prone to fall into the virtual world (27). Parents with a permissive parenting style rarely discipline and supervision their child's online behavior, so their children prone to addiction to the

internet (29). Low strictness/supervision positively contributed to internet addiction of adolescents (30). This study results is supported by other previous studies (19, 31, 32), which found a positive significant correlation between authoritarian parenting style with internet addiction. Previous longitudinal studies mentioned that a father's authoritarian parenting style increases the risk behavior of adolescents in delinquent activity and substance use (20). Parents who applied authoritarian parenting tend to have a high demand with low responsiveness. They control their child strictly, avoid negotiation, do punishment, and take emotional distance (11). They dominate in controlling parent-child relationships, in making plans and decisions for their children, live them up to their expectations, and pressuring their children. Internet addiction is considered a self-medicating behavior and is a maladaptive form of coping strategy. A child who raised with an authoritarian parenting style may look at their parental supervision as a communication barrier between them. They avoid communication with their parents and engage more in online activities to seek comfort and avoid conflicts. The more they spent time online to avoid stressful family interactions, the higher their chances of showing symptoms of internet addiction (31). Therefore it can be concluded if parenting style plays a significant role in adolescents' internet addiction. These studies highlight the importance of fathers not using permissive and authoritarian parenting styles to prevent internet addiction among their children. Applied the effective parenting style and increased the quality of interaction between parents-adolescents is the best way to create welfare of adolescents mental health also to prevent adolescents developed internet addiction.

### Limitation

This study has several limitations that must be noted. The study was cross-sectional, as the methods examine the time dimension. This research is limited to a small number of samples. The study used self-report measured not by the interview. Future studies with a larger number of samples among Indonesian adolescents are needed, and the result can be more generalized.

Additional data about the socio-demographic of the parents and parental reports are needed to get a better and more comprehensive insight into the correlation between parenting styles and internet addiction levels of adolescents. Longitudinal and cohort design are suggested for future studies in this field to observe the internet use behavior develops over time in children.

### Conclusion

This study represented a high prevalence of 77.2 % internet addiction among Indonesian adolescents at one of the junior high Schools in Surabaya, Indonesia. The majority is 'mild' internet addiction level. The present study showed that those adolescents who perceived a higher permissive and authoritarian paternal parenting

styles had suffered a higher internet addiction level. This study highlighted the importance of paternal parenting style among adolescent internet addiction. Fathers are not suggested to apply the permissive and authoritarian parenting style to their children in order to create welfare of adolescents mental health and prevent adolescents' internet addiction.

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### Conflict of Interest

None.

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