



The Role Of Parental Parenting On Problematic Smartphone Use In Adolescents

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Abstract: Adolescents are an age group that is vulnerable to various behavioral changes, including the tendency to use smartphones excessively. Problematic smartphone use in adolescents is influenced by various factors, one of which is parental parenting as the closest parenting environment. This study aims to see and analyze the influence of parental parenting on problematic smartphone use in adolescents. The subjects in this study were 245 students at the secondary school level. This study uses the scale of parental parenting and the scale of problematic smartphone use as a research measuring tool. The data obtained was then analyzed using simple regression. Based on the results of the analysis, it was found that there was a significant influence between parental parenting on problematic smartphone use in adolescents. This study provides an idea that efforts to prevent problematic smartphone use in adolescents can be done by paying attention to and improving more adaptive and supportive parenting patterns.

Keywords: Parenting And Problematic Smartphone Use.

INTRODUCTION

The use of *smartphones* has become an inevitable phenomenon in this digital era. For teenagers, smartphones are not only a means of communication, but also a means of entertainment, education, and socialization. However, excessive smartphone use can lead to various problems, known as *problematic smartphone use (PSU)*. *Problematic smartphone use* in adolescents has become a global concern because it can negatively impact their mental, physical, and social health. According to research by Bianchi and Phillips (2005), PSU can lead to sleep disorders, decreased academic achievement, and mental health problems such as anxiety and depression. Therefore, it is important to identify the factors that affect PSU in adolescents.

Adolescence is a transitional age for every human being. This is because an individual has left a weak and dependent childhood, but has not been able to reach a strong and responsible age, both to himself and society. Being in the age range of 12-18 years is a negative period, because during this period there are negative attitudes and traits that have not been seen in childhood, individuals feel confused, afraid, anxious and anxious (Hurlock, 2003). Many early teens reduce their anxiety by playing *smartphones*, for most users, *smartphones* are more than just communication devices, work aids and *game consoles*.

In today's era, *Smartphones* also provide access to a variety of entertainment and activities that can help distract your mind from anxiety. For example, watching funny videos or listening to your favorite music can help a person feel more relaxed and calm. It provides pleasure, reduces fatigue, reduces anxiety and provides a sense of security. The use of *smartphones* is an integral part for individuals in managing various situations and maintaining social relationships. However, not all adolescents use *smartphones* according to the use of the *smartphone* itself (Roberts *et al* . 2014).



The number of *smartphone* users shows that Indonesia is fourth in the list of the most *smartphone* users in the world, recorded at 192.15 million *smartphone* users in Indonesia throughout 2022 (Sadya, 2023). The latest data based on the results of the APJII survey in 2023 shows that the highest *smartphone* penetration of 98.20% is in adolescents, namely 13-18 years old (APJII, 2023). Therefore, *smartphones* are gradually replacing personal computers and becoming the optimal way for people to access the network. For teenagers, *smartphones* make it easier to communicate, meet daily needs, and also get entertainment.

Excessive use of *smartphones* can produce various problems in adolescents, such as anxiety, low self-esteem when there is no *smartphone* around, depression, addiction to pornographic content, decreased productivity in daily life, and a tendency to procrastinate in completing tasks (Kwon *et al.*, 2013). Some studies have also found a link between excessive *smartphone* use and higher levels of anxiety and depression. *Smartphones* are often used as a tool to reduce stress or escape from problems, which can ultimately worsen psychological conditions (Elhai *et al.* 2016).

In the research of Pamuk and Atil (2016) the problematic form of *smartphone use* (PSU) is the experience of *deprivation* that describes the feeling of discomfort when not being able to use *the smartphone* (feeling that something is missing), (*adverse outcomes*) showing *uncontrolled smartphone use (control problem)* and show individual behavior to avoid face-to-face communication with friends or people around them, and prefer to communicate through *smartphones (interaction avoidance)*. In general, adolescents use *smartphones* according to the needs of each individual (Busch *et al.* 2021). One of the main functions of *smartphones* is the use of social media (Lopez-Fernandez *et al.* 2017). As a result of the use of social media, it is often found in the daily learning process that people who use social media more often (e.g. *Facebook*) have worse academic results (Kirschner and Karpinski, 2010) and this applies to the use of other social media platforms if used too often.

On the other hand, according to research by Busch *et al* (2021), the prevalence of PSU tends to be low in elderly individuals over 60 years old, while research by Chan *et al* (2023) shows that adolescents have a higher risk of developing PSU. The existence of this PSU gap phenomenon in various age groups is the reason for researchers to be interested in knowing more about PSU, especially in adolescents. According to Firat *et al.* (2018) PSU is an important problem among adolescents, where its prevalence is increasing every year, this is supported by Chan *et al.* (2023) who states that adolescents are more susceptible to PSU than adults.

From the research (Febiola and Feby 2014) it is said that there is anxiety in adolescents. The impact of PSU on adolescents using *smartphones* must be accompanied by parental parenting. The use of *smartphones* is used by various groups, ranging from children to the elderly, now able to operate *smartphones* easily, especially in this era, *smartphones* are equipped with various advanced features that make it easier for people to access various needs.

Parents give *smartphones* so that they can maintain communication with their children when their parents are at work or not together. *Smartphones* can be used as a means of entertainment, but parents sometimes neglect to check or monitor other activities that children do. Related to this situation, parents can apply three types of parenting styles in interacting and guiding their children. First, *authoritarian* parenting, which is punitive, restrictive, and has little discussion. In this style, parents will force their teenager to follow his direction, respect his work, and the various efforts he makes. Second, *authoritative* parenting, which is responsible, warm, and open discussion. In this style, the parent provides support to his adolescent to take responsibility but with limits and control over their actions. Third, *permissive* parenting, which is fulfilled. Parents in this parenting style are very involved in their role and they give little demands and control to their teenagers so that they tend to always meet the will and requests of their teenagers.

Based on the results of the studies that have been conducted, proper parenting is needed to prevent a child from becoming addicted to the internet. If parents apply negative parenting, it will have an impact, namely reducing children's mental health, self-esteem, children's life satisfaction, and increasing high shyness in children (Mintz *et al.* 2017; Yamawaki, Peterson, & Omori, 2011). Parents generally want to protect their children from involvement in problematic *smartphone* (PSU) use. Therefore, parents seek to influence children's smartphone use by setting rules, monitoring usage, or discussing certain risks. This explicit and largely intentional parenting practice is known as parental mediation via *smartphones* (Livingstone & Helsper, 2008). The use of *smartphones* in adolescents cannot be separated from parental supervision in addition, parents also influence children's smartphone involvement at a more implicit level as role models through their own cell phone behavior (Vaala & Bleakley, 2015).



Parents are required to supervise early adolescents more in accordance with the needs of the child. Healthier and in accordance with their child's growth and development, especially in their youth in early adolescence. Parenting in the use of *smartphones* in children includes taking time to accompany smartphone use, disciplining the time of smartphone use, teaching difficulties in operating *smartphones*, providing directions to open educational content (Wulandari *et al.*, 2018). Therefore, parental parenting is very important in

Technological developments for children, parents must be careful and guide children in the use of *smartphones*.

Based on the background and phenomena described above, smartphone use in adolescents shows a serious tendency towards *problematic smartphone use (PSU)*. This condition is inseparable from the role of parental parenting which affects how adolescents use *smartphones* in their daily lives. Therefore, in this study, the author raised the title "The Role of Parental Parenting on Problematic Smartphone Use in Adolescents" for further research.

LITERATURE REVIEW

Problematic Smartphone Use

According to Bianchi & Phillips (2005), *problematic smartphone use* is a problem of *smartphone* use that can be associated with an addictive behavior and problems of *using smartphones* can be predicted from aspects such as *extraversion, self-esteem, neuroticism*, gender and age. *Problematic smartphone use*, also known as mobile phone addiction or *compulsive mobile phone use*, is a problem or disorder that is usually found in adolescents or adolescents towards adulthood where it is characterized by unpleasant behaviors such as anxiety when the cell phone is dead (battery drained) or the network is out of range (Campbell, 2005).

The term in *Problematic smartphone use (PSU)*, *problematic cell phone use (PCPU)* is used to describe the pattern of interaction with mobile phones that have characteristics with addictive behavior (Bianchi & Phillips, 2005). *Problematic smartphone use* is characterized by technology addiction behavior that can usually be labeled as behavioral addiction (Bianchi & Phillips, 2005). According to Bianchi & Phillips (2005), behavior in excessive use of technology is a problem and it can be concluded that it is an addictive behavior or not, because the name of a problem of excessive use of technology can be an initial reference in addictive behavior and can become a problem in behavior for example such as *problematic smartphone use*.

Dimensi Problematic Smartphone Use

Kwon *et al.*, (2013) have included six dimensions to determine whether individuals have been classified as problematic *smartphone use*. The dimensions are as follows:

1. *Daily-life disturbance* . Smartphone users have difficulty concentrating on their work because they can't get *the smartphone* out of their minds. Furthermore, they spend so much time using *smartphones*/*smartphones* that they experience mild headaches, blurred vision, pain in the wrists or behind the neck, and so on.
2. *Positive anticipation*. It is described as feeling excited to get rid of stress with *smartphone use*, and feeling empty without *a smartphone*. For most smartphone users, *smartphones* are not only a calling device, a game console but also a friend because they bring a feeling of fun, reduce their fatigue and anxiety, and make them feel safe.
3. *Withdrawal* . Describe feelings of impatience, anxiety, and unbearable when there is no *smartphone*. Constantly thinking about *smartphones* even when they are not using them. Never stop *using a smartphone*, and become irritated when disturbed when using *a smartphone*.
4. *Cyberspace-oriented relationship*. The feeling that the relationship with the friend he gets through *the smartphone* is more intimate than the relationship with his real or actual life partner, experiencing an uncontrollable feeling of loss when he is unable to use *the smartphone*, and as a result constantly checking *his smartphone*. For *smartphone* users, *the smartphone* world is a real community or streamlined society formed by Social Network (SNS) sites, such as *Twitter* or *Facebook*.
5. *Overuse* . Referring to uncontrolled smartphone use, preferring to conduct searches using *smartphones* rather than asking for help from others, always setting up charging, and feeling the urge to use *the smartphone* again right after stopping using it.



6. *Tolerance*. Defined as always trying to control *smartphone* use but always failing to do so.

Parenting Style

In daily life at home, there are various approaches or styles in educating used by parents. According to Casmini (2007), parental parenting is a way in which parents treat children, providing education, guidance, discipline, and protection necessary to facilitate the child's maturation process, as well as to shape the norms expected by society in general.

Baumrind (1991) explained that parenting is the attitude of parents towards children by developing rules and attention to children. Parental behavior control consists of parenting that seeks to control, manage, regulate children's behavior, strategies, rewards and punishments through supervision. Proper behavioral control is thought to have a positive impact on child development, while inadequate behavioral control is associated with negative success, such as deviant behavior, depression, and anxiety.

Djamarah (2014) explained that parental parenting in the family includes the habits of parents, both fathers and mothers, in leading, nurturing, and guiding children. This pattern is a consistent pattern of behavior over time, affecting children with various effects, both positive and negative, depending on its implementation.

According to the opinion of some of the experts above, it can be concluded that supervision is an activity of a person to control or correct an activity or work carried out, this is intended so that an activity or work does not experience or make mistakes.

RESEARCH METHODS

In this study, the type of research used is quantitative research. The population of this study is students from junior high school/high school. The population of this study was 245 students, 109 males and 136 females. The sampling method used in this study is *total sampling*. The total sampling method is a sampling method where the number of samples is equal to the number of population, Yusuf (2014). The researcher used the *total sampling* method because of the number of populations that can still be reached by the researcher. For this reason, the sample taken in this study is 245 junior high school students in Medan.

This research instrument uses a likert scale using the parenting role scale while the statements in the questionnaire questions amount to 30 items and the *problematic smartphone use* scale with question details totaling 33 items. The scale of parental role before construction amounted to 30 questions, then after a validity and reliability test was carried out using *Jamovi* software, the final results for the statements amounted to 15 questions. And the scale of *problematic smartphone use* before construction amounted to 33 questions, then a validity and reliability test was carried out using *Jamovi* software, the final result amounted to 27 questions.

On the scale of parental role when the validity test was carried out, there was a probability value of $<.001$, which means it was less than .05. Then, in this study too, the authoritative CFI value is 0.988, the RMSEA value is 0.063, which means it is greater than 0.90. In this study, the RMSEA value was 0.05, which means it is approximately 0.08. Authoritative CFI value 1,000 RMSEA value 0.000 permissive CFI 1,000 RMSEA value 0.000. Therefore, it can be concluded that 15 items that have been processed are fit. Meanwhile, the reliability value on this scale is seen from the alpha authoritative c of 0.806, authoritarian of 0.861 and permissive of 0.792. When the *cvalue of ronbach alpha* is closer to 1.00, the measurement is more reliable (Azwar, 2015). Thus, the scale of parental parenting roles is valid and reliable.

On the *problematic scale of smartphone use* when the validity test is carried out, there is a probability value of $<.001$, meaning it is less than .05. On the *PSU scale*, the CFI value is 0.91, which means it is greater than 0.90. Also its TLI value is 0.91, meaning it is greater than 0.90. In this study, the RMSEA value was 0.07, which means that it is approximately 0.08. Therefore, it can be concluded that the 27 items that have been processed are fit. Meanwhile, the reliability value on this scale is seen from the *cronbach alpha* of 0.867. When the *cvalue of ronbach alpha* is closer to 1.00, the measurement is more reliable (Azwar, 2015). Thus, the scale of *problematic smartphone use* is valid and reliable.

The data analysis carried out in this study uses simple linear regression, which is a linear relationship between one independent variable (x) and one dependent variable (y). The simple linear regression formula is as follows: $Y = a + bX$. Before



conducting hypothesis testing, a data analysis process called regression assumption test will be carried out. This regression assumption test consists of a normality test, a heteroscedasticity test and a multicollinearity test.

The normality test is used to test the normality of the data, where the assumption is that the data must be distributed normally through the Kolmogorov-Smirnov one-sample test (Raharjo, 2014). The data can be considered normal when the significance value (sig.) is $> .005$, otherwise if the sig. $< .005$, the data is not distributed normally.

Table 1. Normality Test Results

N		245	245	245	245	245	245
Normal Parameters	Mean	25.7184	25.4163	25.6653	76.8000	47.2041	109.4000
	Std. Deviation	6.87282	6.54831	6.0165	10.904	5.1858	7.92040
Most Extreme Difference	Absolute	.055	.050	.048	.042	.056	.045
	Positive	.055	.056	.040	.042	.056	.045
	Negative	-.023	-.032	-.048	-.034	-.054	-.036
Test Statistics		.055	.050	.048	.042	.056	.045
Asymp. Sig. (2-tailed)		.068	.200 ²	.200 ²	.200 ²	.057	.200 ²

The results of the normality test showed that the value of Asymp.sig (2 tailed) of the parental role variable was .200, and *problematic smartphone use* was .200. The value of Asymp.sig (2 tailed) is the second variable $> .005$, for this reason, it can be concluded that the research data is categorized as normally distributed.

Table 2. Linearity Test Results

Tabel 1. Hasil Uji Linearitas		Hubungan Variabel	Sumber Variasi	Sum Squares	df	Mean Square	F	Sig.
Problematic Smartphone Use	× Autoritatif	Linearity	3781.295	1	3781.295	83.962	< .001	
		Deviation from Linearity	1797.801	27	66.585	1.478	.067	
Problematic Smartphone Use	× Authoriter	Linearity	4843.983	1	4843.983	116.291	< .001	
		Deviation from Linearity	1507.180	28	53.828	1.292	.158	
Problematic Smartphone Use	× Permisif	Linearity	4759.626	1	4759.626	108.867	< .001	
		Deviation from Linearity	1147.444	28	40.980	0.937	.560	
Problematic Smartphone Use	× Pola Asuh	Linearity	2267.866	1	2267.866	47.315	< .001	
		Deviation from Linearity	3596.549	46	78.186	1.631	.012	

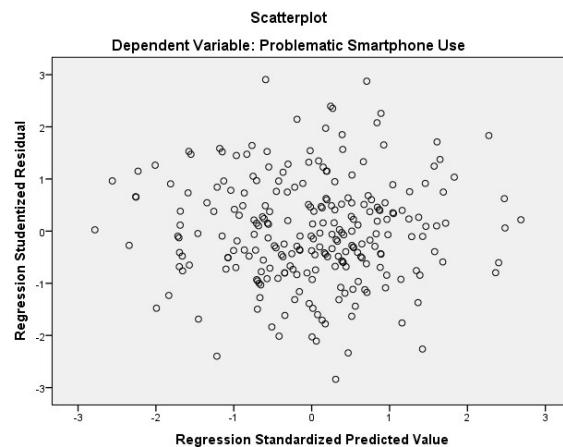
Based on the linearity assumption test between the variables of parental parenting roles and *problematic smartphone use*, it was found that the value of F, **Problematic Smartphone Use × Authoritative** was 83,962. **Problematic Smartphone Use × Authoriter** is 116,291. **Problematic Smartphone Use × Permissive** is 108,867. **Problematic Smartphone Use × Parenting** was 47,315 with a linearity *significance value* of .001 ($p < .05$). Thus, the two variables in this study are linear.

Table 3. Multicollinearity Test Results

Coefficients ^a		Collinearity Statistics	
Model		Tolerance	VIF
1	(Constant)	.974	1.026
	Autoritatif	.971	1.029
	Authoriter	.914	1.094

Based on the multicollinearity assumption test, it is known that the VIF value of parental parenting role is authoritative .0974 with a tolerance value of .933. *authoriter* .971 with a tolerance value of 1.029 and *permissive* .914 with a tolerance value of 1.094. If the VIF value is around the number 1 or $VIF < 10$ and the *Tolerance* value is also around the number 1, then the model is declared free of multicollinearity (Santoso, 2000; Field, 2018). Based on the multicollinearity test on the linear regression model, a VIF value of 1.072 and a tolerance of .933 were obtained. The value of VIF and tolerance variables is around the number 1 which means that there is no multicollinearity in the linear regression model used.

Table 4. Heteroskedasity Test Results with Scatterplot



Ghozali (2013) stated that the basis of the analysis is that if there is a certain pattern, such as existing points forming a certain regular pattern, then it indicates that heteroscedasticity has occurred. If there is no clear pattern, as well as the dots spread above and below the number 0 on the Y axis, then heteroscedasticity does not occur. Based on the results of the heteroscedasticity test with the scatterplot above, it can be seen that there is no such clear pattern, and the dots spread above and below the number 0 on the Y axis, so heteroscedasticity does not occur.

Research Hypothesis Test Results

The hypothesis that will be tested in this study is whether there is an influence between the role of parental parenting on *problematic smartphone use* in adolescents in Meme. In this study, the hypothesis test aims to test the influence of parental parenting and socioeconomic status on problematic smartphone use in adolescents. According to Ghozali (2019), the t-test is used to test the influence of each independent variable partially on the dependent variable, while the F-test is used to test the influence of all independent variables simultaneously.



Table 5. Partial Test Results

Coefficients ^a		t	Sig.
Model			
1	(Constant)	33.572	<.000
	Autoritatif	-15.322	<.000
	Authoriter	15.912	<.000
	Permissive	14.513	<.000

There are the results of the **Authoritative Parenting Style**:

- $t = -15.322$
- $\text{Sig.} = < 0.000$
- $|t \text{ count}| > t \text{ table} (15,322 > 1,970)$

Pola Asuh Authoritarian :

- $t = 15.912$
- $\text{Sig.} = < 0.000$
- $|t \text{ count}| > t \text{ table} (15,912 > 1,970)$

Permissive Parenting:

- $t = 14.513$
- $\text{Sig.} = < 0.000$
- $|t \text{ count}| > t \text{ table} (14,513 > 1,970)$
-

Table 6. Coefficient of Determination

Model Summary ^b			
Model R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.884 ^a	.781	.778
			3.73524

a. Predictors: (Constant), Status Ekonomi Sosial, Autoritatif, Authoriter, Permissive

b. Dependent Variable: Problematic Smartphone Use

An R Square value of 0.781 was obtained, which means that 78.1% of the variability of *Problematic Smartphone Use* can be explained by independent variables in this model, namely parenting styles (authoritative, authoritarian, and permissive). Meanwhile, the remaining 21.9% was explained by other factors outside the regression model that were not included in this analysis, such as social environmental factors, adolescent personality, peer influence, and level of access to technology. With a high R² value (close to 1), it can be concluded that the regression model constructed has excellent explanatory capabilities and is feasible to predict the level of Problematic Smartphone Use based on the independent variables determined.



RESULTS AND DISCUSSION

Results

This study involved two main variables, namely parental parenting as an independent variable and *problematic smartphone use* as a dependent variable in adolescents. The subjects in this study were 245 adolescents who were students at the high school level.

The classification of subjects by gender consists of (fill in if there is male/female data). The age classification follows the categories of adolescent development, namely early adolescents (10–14 years old), middle adolescents (15–16 years), and late adolescents (17–21 years old). The division by grade level includes grades VII, X, and XI according to the structure of the upper secondary education level.

The categorization in this study was compiled based on the results of measuring parental parenting and the level of *problematic smartphone use* in adolescents. The categorization is presented in the following table.

Table 7. Categorization of *PSU Variables in Adolescents*:

Gender		
Category	Quantity	Percentage (%)
Male	109	44.5%
Women	136	55.5%
Total	245	100%

Of the total 245 respondents, 109 respondents (44.5%) were men, while 136 respondents (55.5%) were women. This shows that the majority of subjects in this study are women. This difference in proportion is still within reasonable limits and can reflect the tendency of respondents' participation based on gender among adolescents in Medan City. This gender diversity allows researchers to obtain a more comprehensive picture of the influence of parental parenting and socioeconomic status on problematic smartphone use.

Table 8. Subject Categorization by Class:

Classes		
Category	Quantity	Percentage (%)
Class VII	83	33.9%
Class X	82	33.5%
Class XI	80	32.7%
Total	245	100%

The table above presents the distribution of research subjects by grade level. Of the total 245 respondents, as many as 83 respondents (33.9%) came from Class VII. Then, 82 respondents (33.5%) were students of Class X. Meanwhile, 80 respondents (32.7%) came from Class XI. This distribution shows that the research subjects cover the entire range of class levels proportionally, with a relatively balanced number in each class (Class X, Class XI, and Class XII).



Table 9. Subject Overview by Age

Age		
Category	Quantity	Percentage (%)
12–14 years old	77	31.4%
15–16 years old	80	32.7%
17–18 years old	88	35.9%
Total	245	100%

Shows the distribution of research subjects by age range. Of the total 245 respondents, 77 people (31.4%) were in the age range of 12–14 years, 80 people (32.7%) were in the age range of 15–16 years, and 88 people (35.9%) were in the age range of 17–18 years. These data show that the study subjects covered the entire adolescent age range proportionally, with the largest number being in the 17–18 age group. This relatively even age distribution reflects the diversity of adolescent developmental stages that are the target of the study, so that the results obtained can more comprehensively describe problematic smartphone usage conditions based on age.

Discussion

Based on the results of partial analysis, this study shows that the three parenting styles of authoritative, authoritarian, and permissive parents have a significant influence on *Problematic Smartphone Use* (PSU) in adolescents. Authoritative parenting showed a negative and significant influence ($t = -15.322$; $p < 0.000$), which means that the higher the application of *authoritative* parenting, the lower the tendency of adolescents to experience PSU. This parenting characteristic that balances control, warmth, and open communication helps adolescents develop good self-regulation in the use of technology (Santrock, 2018). These findings are in line with Baumrind (1971) as well as the research of Kwon et al. (2021) and Zulkarnain et al. (2025) which affirm that authoritative parenting plays a protective factor against digital addictive behavior.

In contrast, *authoritarian* parenting was shown to have a positive and significant influence on PSU ($t = 15.912$; $p < 0.000$). This parenting style is characterized by strict control, low communication, and lack of emotional warmth, thus increasing stress and anxiety in adolescents (Baumrind, 1991; Santrock, 2018). This condition makes teenagers tend to seek escape through digital activities such as social media and games. This is reinforced by the findings of Odaci & Çelik (2013) and Zulkarnain et al. (2025) who stated that psychological pressure in authoritarian parenting contributes to compulsive smartphone use behaviors.

In addition, *permissive* parenting also showed a positive and significant influence on PSU ($t = 14.513$; $p < 0.000$). This lack of supervision, restrictions, and rules in parenting gives teens complete freedom in using smartphones, thus increasing the risk of overuse. In accordance with the view of Baumrind (1971) and supported by research by Güzel & Yıldız (2019), Leung & Shek (2022), and Chakraborty et al. (2024), adolescents raised with permissive parenting tend to be impulsive and lack self-control, which triggers addictive behavior towards smartphones.

Overall, the findings of this study confirm that parental parenting has an important role in shaping smartphone use patterns in adolescents. Authoritative parenting acts as a protective factor, while *authoritarian* and *permissive* parenting increases the risk of Problematic Smartphone Use. These findings emphasize the importance of a balance between supervision, emotional support, and the application of clear rules in parenting in the digital age to prevent problematic smartphone use behaviors in adolescents.

CONCLUSION

This study aims to determine the role of parental parenting on *Problematic Smartphone Use* (PSU) in adolescents by involving 245 respondents. The results of the study showed that *authoritative* parenting had a negative and significant influence on PSU, while



authoritarian and *permissive* parenting had a positive and significant effect. These findings confirm that parenting styles play an important role in shaping adolescents' digital behavior. A balanced parenting style between discipline, warmth, and open communication has been proven to be able to reduce the risk of *problematic smartphone* use. On the other hand, parenting that is too strict or too loose increases the tendency of adolescents to engage in *compulsive and uncontrolled smartphone* use.

This research provides practical implications for parents, schools, and related parties to pay more attention to parenting patterns in the context of technological developments. Education on healthy parenting and supervision of smartphone use is needed to prevent the negative impact of digital on adolescents. However, this study still has limitations, such as the limited focus of variables and the use of survey methods that depend on respondents' perceptions. Therefore, further research is recommended to include other variables such as emotion regulation, self-control, and peer influence, as well as consider mixed methods to obtain a more comprehensive picture.

Overall, this study confirms that parenting is a key factor in preventing *Problematic Smartphone Use* in adolescents. With proper parenting, adolescents can be directed to use technology in a healthy, balanced, and responsible manner.

REFERENCES

- [1]. APJII. (2023). *Report on the 2023 Indonesian Internet Penetration Survey*. Indonesian Internet Service Providers Association.
- [2]. Azwar, S. (2015). *Reliability and Validity*. Student Library.
- [3]. Baumrind, D. (1991). Parenting styles and adolescent development. *Journal of Early Adolescence*, 11(1), 56–95.
- [4]. Bianchi, A., & Phillips, J. G. (2005). Psychological predictors of problem mobile phone use. *CyberPsychology & Behavior*, 8(1), 39–51.
- [5]. Busch, P. A., Hausvik, G. I., Roppen, J., & Panayotova, G. (2021). Smartphone usage among older adults. *Technology in Society*, 64, 101–151.
- [6]. Campbell, M. (2005). The effects of mobile phones on children. *Social Issues Journal*, 62(1), 34–45.
- [7]. Casmini. (2007). *Parenting Style*. Learning Library.
- [8]. Chan, G., Lo, T., Li, J., & Yip, P. (2023). Problematic smartphone use among adolescents: A global review. *Journal of Behavioral Addictions*, 12(2), 455–470.
- [9]. Djamarah, S. B. (2014). *Parenting and Communication in the Family*. Rineka Cipta.
- [10]. Elhai, J. D., Levine, J. C., Dvorak, R. D., & Hall, B. J. (2016). Fear of missing out, need for touch, anxiety and depression in problematic smartphone use. *Computers in Human Behavior*, 63, 509–516.
- [11]. Firat, M., Yıldırım, A., & Erden, F. (2018). Problematic smartphone use and psychological outcomes. *International Journal of Psychology*, 53(4), 234–245.
- [12]. Field, A. (2018). *Discovering Statistics Using IBM SPSS Statistics* (5th ed.). SAGE Publications.
- [13]. Ghazali, I. (2013). *Application of Multivariate Analysis with SPSS Program*. Publishing Agency of Diponegoro University.
- [14]. Ghazali, I. (2019). *Multivariate Analysis Application with IBM SPSS 25 Program*. Publishing Agency of Diponegoro University.
- [15]. Hurlock, E. B. (2003). *Developmental Psychology: A Lifespan Approach*. Erlangga.
- [16]. Kirschner, P., & Karpinski, A. (2010). Facebook® and academic performance. *Computers in Human Behavior*, 26(6), 1237–1245.



[17]. Kwon, M., Lee, J. Y., Won, W. Y., Park, J. W., Min, J. A., Hahn, C., ... & Kim, D. J. (2013). Development and validation of a smartphone addiction scale. *PLoS ONE*, 8(2), e56936.

[18]. Livingstone, S., & Helsper, E. (2008). Parental mediation of children's internet use. *Journal of Broadcasting & Electronic Media*, 52(4), 581–599.

[19]. Lopez-Fernandez, O., Honrubia-Serrano, M., Freixa-Blanxart, M., & Gibson, W. (2017). Problematic internet and smartphone use in young people. *Journal of Behavioral Addictions*, 6(1), 1–12.

[20]. Mintz, L., Lee, H., & Morris, J. (2017). Negative parenting and adolescent outcomes. *Family Psychology Review*, 9(2), 154–168.

[21]. Pamuk, M., & Atil, H. (2016). Problematic smartphone use: Conceptual framework and dimensions. *International Journal of Human Sciences*, 13(2), 2151–2163.

[22]. Pristian, D. (2016). Socioeconomic status and family behavior. *Journal of Social Humanities*, 7(1), 22–31.

[23]. Raharjo, S. (2014). *Guide to Statistical Analysis with SPSS*. Kompindo Media.

[24]. Roberts, J. A., Pullig, C., & Manolis, C. (2014). I need my smartphone: A regional survey. *Journal of Behavioral Addictions*, 3(2), 78–84.

[25]. Sadya, A. (2023). Data on Indonesian smartphone users in 2022. *Indonesian Journal of Technology*, 5(1), 10–18.

[26]. Santoso, S. (2000). *SPSS Exercise Book Parametric Statistics*. Elex Media Komputindo.

[27]. Vaala, S. E., & Bleakley, A. (2015). Monitoring, mediating and modeling: Parental influence on adolescents' digital media use. *Journal of Adolescent Health*, 56(2), 28–35.

[28]. Wulandari, S., Nurhidayati, & Saputro, A. (2018). Parenting style in the use of smartphones in children. *Journal of Child Education*, 7(1), 45–54.

[29]. Yamawaki, N., Peterson, G. W., & Omori, M. (2011). The effects of negative parenting on adolescents' outcomes. *Journal of Child and Family Studies*, 20(1), 22–28.

[30]. Yusuf, A. M. (2014). *Quantitative, Qualitative, and Combined Research Methods*. Kencana.