

FAMILY RITUALS AND PROBLEMATIC SMARTPHONE USE IN ADOLESCENTS

Isnî Sania Maulida^{1*)}, Vidya Anindhita^{2,4}, Fitri Ariyanti Abidin^{3,4}

¹Faculty of Psychology, Universitas Padjadjaran, Sumedang 45363, Indonesia

²Department of Developmental Psychology, Faculty of Psychology,
Universitas Padjadjaran, Sumedang 45363, Indonesia

³Department of General and Experimental Psychology Faculty of Psychology,
Universitas Padjadjaran, Sumedang 45363, Indonesia

⁴Center for Psychological Innovation and Research, Faculty of Psychology,
Universitas Padjadjaran, Sumedang 45363, Indonesia

^{*)}E-mail: isni19001@mail.unpad.ac.id

Abstract

Family factors have been identified as potential protective or risk factors for problematic smartphone use in adolescents, yet studies on family rituals as one of the important family factors are scarce. Therefore, this study investigates the relationship between family rituals and problematic smartphone use in adolescents. Family rituals were measured using the Family Ritual Questionnaire (FRQ), and problematic smartphone use was measured using the Mobile Phone Problematic Use Scale (MPPUS). Both measurements were validated in the Indonesian version. Using a cross-sectional approach, we applied a convenience sampling method. Two hundred and twelve adolescents aged 12-18 (girls= 113, boys= 98; Mean age= 14.56, SD= 1.41) participated in this study. The data was analyzed using Spearman's rho correlation analysis. The results show no significant correlation between family rituals and problematic smartphone use in adolescents ($r = 0.01$; $p > 0.05$). Further investigation involving family communication as a mediating variable is strongly recommended.

Keywords: adolescents, Indonesia, family rituals, problematic smartphone use, smartphone

Ritual Keluarga dan Penggunaan *Smartphone* yang Bermasalah pada Remaja

Abstrak

Faktor keluarga telah teridentifikasi sebagai faktor pelindung atau faktor resiko dalam penggunaan *smartphone* yang bermasalah pada remaja, namun kajian mengenai ritual keluarga sebagai salah satu faktor keluarga yang paling penting masih jarang ditemukan. Tujuan dari penelitian ini adalah untuk meneliti hubungan antara ritual keluarga dan penggunaan *smartphone* yang bermasalah pada remaja. Ritual keluarga diukur dengan menggunakan *Family Ritual Questionnaire (FRQ)*, dan penggunaan *smartphone* yang bermasalah diukur dengan menggunakan *Mobile Phone Problematic Use Scale (MPPUS)*. Kedua alat ukur tersebut telah divalidasi dalam bahasa Indonesia. Penelitian ini menggunakan rancangan *cross-sectional*, dengan metode *convenience sampling*. Dua ratus sebelas remaja berusia 12-18 tahun (perempuan = 113, laki-laki = 98; Rata-rata usia= 14,56, SD= 1,41) berpartisipasi dalam penelitian ini. Data dianalisis menggunakan uji korelasi Spearman's rho. Hasilnya menunjukkan tidak ada korelasi yang signifikan antara ritual keluarga dan penggunaan *smartphone* yang bermasalah pada remaja ($r = 0,01$; $p > 0,05$). Komunikasi keluarga sebagai variabel mediator sangat disarankan untuk dilakukan pada penelitian selanjutnya.

Kata kunci: Indonesia, penggunaan *smartphone* bermasalah, remaja, ritual keluarga, *smartphone*

INTRODUCTION

Nowadays, almost all people have smartphones, including adolescents. In Indonesia, data from the Central Bureau of Statistics in 2021 shows that 74.64 percent of individuals aged 15-24 are smartphone users (Badan Pusat Statistik, 2022). The use of smartphones cannot be separated from the use of the internet because the main feature of smartphones is internet-based applications. A survey conducted by APJII from 2019-2020 shows that 95.4 percent of

smartphone users are connected to the internet daily (Asosiasi Penyelenggara Jasa Internet Indonesia, 2020).

Smartphones are widely used because of their convenience and many features. Elhai et al. (2017) categorize several functions of smartphones, such as productivity enhancement (e.g., use of email and calendars), media for information seeking (e.g., searching for news via the web), information and social interaction (e.g., use of social media), relaxation and diversion,

entertainment (e.g., games) as well as personal status. In addition to their convenience and usability, smartphones also have several benefits for their users, especially adolescents.

At the stage of adolescence development, peers have a vital role in the life of adolescents (Henneberger et al., 2019). Adolescents are also usually more dependent on friends than parents in meeting the needs of companionship, reassurance of worth, and intimacy (Hasanah & Latifah, 2021; Santrock, 2019). When adolescents do not meet in person with their friends, they stay in touch with friends through social media. Based on a survey conducted by Lenhart (2015), the majority of adolescents communicate with their friends through texting every day. In addition, smartphones in adolescents can help them complete schoolwork, make it easier to connect with friends and family (Vaterlaus et al., 2021), and improve their well-being (Marciano et al., 2022).

However, the ease of using a smartphone has the potential to lead to overuse behavior. In general, smartphone overuse impacts the users' physical, psychological, and social aspects (van Velthoven et al., 2018). A study by Lee et al. (2016) found that excessive duration of smartphone use causes neck flexion and problems in the skeletal and muscular systems. In addition, several physical impacts could occur due to problematic smartphone use, such as pain in the neck, lower back, and shoulders (Alsalameh et al., 2019). Regarding the psychological impact, excessive smartphone use was associated with low well-being (Horwood & Anglim, 2019), high anxiety (Hawi & Samaha, 2017), and high depression (Elhai et al., 2017). Whereas in a social context, smartphone use can reduce pleasure in direct social interactions (Dwyer et al., 2018).

Excessive duration of smartphone use has been widely studied and uses various terminology, such as problematic smartphone use (Horwood & Anglim, 2018; Huang et al., 2021; Kim & Jahng, 2019), smartphone addiction (Cha & Seo, 2018; Hawi & Samaha, 2017), compulsive (Lee et al., 2014), excessive (Wacks & Weinstein, 2021), and maladaptive (Beranuy et al., 2009). Those terminologies are often used interchangeably. In the present study, we use problematic smartphone use (PSU), defined as the phenomenon of disruption in productivity, physical health, social relationships, and well-being caused by uncontrollable smartphone use (Horwood & Anglim, 2018). A study by Haug et al. (2015) reported that adolescents aged 15-16 years are more likely to experience PSU. In

addition, PSU in adolescents was associated with low self-esteem (Wang & Lei, 2019), high rumination, poor sleep quality, low mindfulness (Liu et al., 2017), and low academic performance (Hawi & Samaha, 2017). To conclude, PSU in adolescents impacted the negative outcomes. Therefore, many studies have explored the determinant factors of PSU in adolescents.

The determinant of PSU in adolescents includes individual, environmental, and family factors (Nielsen et al., 2020). Regarding individual factors, van Deursen et al. (2015) and Kim et al. (2018) reported that low self-control and self-regulation correlated with a higher risk of PSU. Regarding environmental factors, Kim et al. (2018) found that the low quality of friendships and family dysfunction increases the risk of problematic smartphone use in adolescents. Another study by Mangialavori et al. (2021) showed that disorganized and disengaged families are the main factors for problematic smartphone use in children. In the context of PSU, Sh et al. (2017) found that family functioning was a major factor in adolescents' PSU. In addition, adolescents with PSU were also found to have dissatisfaction with their families (Li et al., 2014). One of the factors increasing family satisfaction in adolescents is communication within the family (Akhlaq et al., 2013). Communication between parents and adolescents in the family and its relation to PSU has attracted several researchers to explore its relationship. Previous studies have found that communication between parents and adolescents negatively correlated with PSU in adolescents (Liu et al., 2016; Guo et al., 2019). Improvement in communication among family members could be facilitated by family rituals (Baxter & Clark, 1996). Although adolescents are closer to their peers than to their parents (Hasanah & Latifah, 2021), the family still plays an important role in an adolescent's life (McGoldrick et al. 2016). Therefore, in this study, we are interested to see the interactions within the family that may be seen through family rituals.

Family rituals are specific practices that are repeated within the family and are characterized by communication that is symbolic in meaning and also builds and perpetuates an understanding of the family (Spagnola & Fiese, 2007). Communication in family rituals usually involves symbolic meaning and explains "who we are" as a group (Fiese, 2002). In addition, Fiese (2002) also states that family rituals and routines can promote a healthy and functional family environment as a meaningful family practice. Wolin and Bennet (1984) also argued that families vary in their ritual practices and

identified two important dimensions of family ritualization: commitment to rituals and the ability to adapt rituals. During family rituals, all family members could focus on the activities together with other family members, for example, at mealtime. For families with adolescents, family ritual is an opportunity to encourage more intense communication between family members. Parents can communicate clear limits and expectations regarding children's smartphone usage behavior and vice versa. Adolescents' involvement in the negotiation process regarding these rules can make adolescents more responsible for their behavior (McGoldrick et al., 2016). Therefore, it is expected that family ritual activities could reduce problematic smartphone use in adolescents. A study conducted by Kim and Jahng (2019) shows that children who regularly spend their weekends with family have a lower risk of PSU.

As far as we are concerned, no study has focused on investigating the relationship between family rituals and PSU in adolescents. Therefore, this study aims to investigate the relationship between family rituals and PSU in adolescents. We hypothesized that family rituals are negatively related to PSU in adolescents. Furthermore, we also explore the relationship between gender and age with family rituals and PSU.

METHODS

Ethical approval was obtained from the Ethical Committee of Universitas Padjadjaran (Number 968/UN6.KEP/EC/2022). This study is a quantitative research method with a cross-sectional design. Convenience sampling was applied to recruit the potential participants. The inclusion criteria were adolescents aged 12-18 years who own a smartphone and live with their parents. The data collection was conducted within five days in September 2022.

The data collection procedure was carried out by visiting one of the private junior and senior high schools in Bandung. The questionnaires were filled out through an online platform with supervision from the researchers. Participants are selected based on the school's available classes for data collection. The participants filled out the questionnaire using their personal smartphones. Informed consent was given prior to the questionnaire. The time required to fill out the questionnaire is approximately 30 minutes.

Based on the operational definition, family rituals are regular activities adolescents do with their

families. The family ritual was measured using the Family Rituals Questionnaire (FRQ) by Fiese and Kline (1993), adapted into Indonesian by Jamil et al. (2019) and re-modified to make it easier to understand, for example "*Di keluarga kami waktu makan hampir sama sepanjang tahun*" modified to "*Di keluarga saya waktu dan jadwal makan hampir tetap.*" This instrument consists of seven settings and eight dimensions. The settings are mealtime, weekend, vacation, annual celebrations, special celebrations, religious celebrations, and cultural and ethnic traditions. The eight dimensions are occurrence, roles, routine, attendance, affect symbolic significance, continuation, and deliberateness. In the present study, three items were found not reliable; hence, the final FRQ consists of 53 items with four answer choices based on a Likert scale. In each setting, there were eight pairs of descriptions of statements that indicate the dimensions of the family ritual. For mealtime settings, for example, the second pair was "*In some families, everyone has a specific role and job to do at mealtime*" and "*In other families, people do different times depending on needs.*" Participants were asked to choose one of the statements that best described the condition of their family, then determine whether the statement was "really true" or "sort of true" to the condition of their respective families. In this study, the reliability results indicate a Cronbach's alpha value of 0.92. Scoring was conducted by adding up the results of all dimensions, and the higher the score, the higher the family ritual. We added one open question for each setting, asking the participants to describe their activities in that particular family ritual setting.

Based on the operational definition, problematic smartphone use (PSU) is an excessive smartphone use behavior that disrupts daily life, especially in terms of productivity, social relations, physical health, and emotional well-being in adolescents aged 12-18 years. PSU is measured using a Mobile Phone Problematic Use Scale (MPPUS) by Kalhori et al. (2015), then adapted into the Indonesian version using the International Test Commission guidance (2017). MPPUS consists of three dimensions: overuse of smartphones (e.g., "I have aches and pains that are associated with my smartphone use"), withdrawal symptoms (e.g., "I had used my smartphone to make myself feel better when I was feeling down"), and preoccupation (e.g., "my friends don't like it when my smartphone is switched off"). This instrument consists of 24 items, and all items were rated on a 5-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. The higher the total score,

the higher the PSU. The reliability results indicate a Cronbach's alpha value of 0.92.

We also asked the participants to fill in the demographic information, such as gender, age, and the average duration of smartphone use in a day.

Data were analyzed using SPSS version 23.0. The total data obtained were 220, but 9 were excluded. One participant did not live with her parents, seven did not complete the family rituals questionnaire, and one did not complete the PSU questionnaire. Therefore, only 211 data were analyzed. Descriptive statistical analysis was conducted to describe demographic, variable family rituals, and PSU. The normality test revealed the non-normal distribution both for family rituals and PSU (family rituals $KS=0.001$, $p < 0.05$; problematic smartphone use $KS=0.01$, $p < 0.05$). Therefore, Spearman's rho correlation analysis was applied.

RESULTS

Demographic Characteristics

Two hundred and eleven adolescents aged 12-18 participated in this study (Mean = 14.56, SD= 1.41). Table 1 shows that the girls (53.6%) slightly outnumbered the boys. Regarding the average duration of smartphone use, 32.2 percent of participants use smartphones for 5-7 hours per day and 8-10 hours per day (30.2%) (Table 1).

Table 1 Demographic characteristics of participants (N=211)

Category	Description	Total	%
Gender	Girls	113	53.6
	Boys	98	46.4
Age	12	21	10
	13	19	9
	14	68	32.2
	15	48	22.7
	16	34	16.1
	17	20	9.5
	18	1	0.5
The average duration of smartphone use	< 2 hours/day	9	4.3
	2 - 4 hours/day	33	15.6
	5 - 7 hours/day	68	32.2
	8 - 10 hours/day	64	30.3
	> 10 hours/day	37	17.5

Note: %=percentage

Table 2 Descriptive statistics of family rituals and problematic smartphone use

Variable - dimensions	Min	Max	Mean	Std. Deviation
Family rituals	1.17	3.83	2.44	0.49
mealttime	1.00	4.00	2.23	0.73
weekends	1.00	4.00	2.37	0.63
vacations	1.00	4.00	2.33	0.52
annual celebrations	1.00	3.88	2.48	0.59
special celebrations	1.00	3.63	2.32	0.61
Religious holidays	1.38	4.00	2.87	0.64
Cultural and ethnic traditions	1.00	4.00	2.30	0.66
Problematic smartphone use	0.98	4.88	2.91	0.73
Overuse	0.93	4.64	2.72	0.70
Withdrawal	1.00	5.00	3.26	0.83
..Preoccupation	1.00	5.00	2.74	0.96

Note: Min=minimum; Max=maximum

Descriptive Statistics of Family Rituals and Problematic Smartphone Use

Table 2 shows the descriptive statistics of family rituals and problematic smartphone use. Based on the range of family rituals scores (range from 1 to 4) and PSU (range from 1 to 5), the average of family rituals was classified as moderate (M = 2.44, SD = 0.49), and problematic smartphone use was classified as low (M = 2.91, SD = 0.73). The highest average score on the family rituals dimension was religious holidays (M = 2.87, SD = 0.66) and the lowest average score was mealttime (M = 2.23, SD = 0.73). The highest average score for problematic smartphone use was on the withdrawal dimension (M = 3.26, SD = 0.83). The mean scores of other dimensions are relatively similar (overuse = 2.72, preoccupation = 2.74).

The Relationship between Family Rituals and Problematic Smartphone Use

The results of the correlational analysis showed that there was a significant relationship between the dimensions of PSU ranged from 0.579 to 0.667. The correlation coefficient between the overall PSU score and its dimensions is moderate to strong (0.698, 0.865, and 0.933 for preoccupation, withdrawal, and overuse, respectively). The demographic data correlating with PSU is the average duration of smartphone use ($r = 0.336$). The results also indicate no significant correlation between family rituals and PSU ($r = 0.01$, $p = 0.89$; $p > 0.05$). The correlation between the dimensions of family rituals shows a quiet variation ranging from 0.680 to 0.808). Whilst, religious holidays show a moderate correlation ($r = 0.460$) (Table 3).

Table 3 Correlation between demographics characteristics, family rituals and PSU dimensions

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Gender	-														
2. Age	0.375	-													
3. Average duration of smartphone use	0.049	0.132	-												
4. Family rituals	0.010	-0.173*	-0.143*	-											
5. Mealtime	0.006	-0.157*	-0.139*	0.792**	-										
6. Weekend	0.083	-0.108	-0.101	0.808**	0.648**	-									
7. Vacation	0.015	-0.120	-0.074	0.749**	0.556**	0.616**	-								
8. Annual celebrations	0.058	-0.156*	-0.147*	0.680**	0.434**	0.527**	0.528*	-							
9. Special celebrations	0.008	-0.115	-0.111	0.778**	0.566**	0.619**	0.544*	0.499*	-						
10. Religious holidays	0.406	-0.077	-0.140*	0.460**	0.242**	0.261**	0.229*	0.184*	0.293*	-					
11. Cultural & ethnic traditions	0.484	-0.104	-0.067	0.690**	0.368**	0.341**	0.326*	0.422*	0.488*	0.216*	-				
12. PSU	0.271	0.028	0.336**	0.010	0.012	-0.023	-0.075	-0.011	0.022	-0.056	0.030	-			
13. Overuse	0.825	0.022	0.293**	0.011	0.040	-0.011	-0.068	-0.007	0.018	-0.061	0.009	0.933*	-		
14. Withdrawal	0.078	0.072	0.305**	-0.013	-0.043	-0.061	-0.091	0.003	0.024	-0.036	0.040	0.865*	0.667*	-	
15. Preoccupation	0.321	-0.024	0.206**	0.097	0.029	0.005	0.077	0.113	0.037	-0.010	0.071	0.698*	0.592*	0.579*	-

Note: * $p < 0.05$, ** $p < 0.01$

Description of family ritual activities

Table 4 presents the activity of participants when they do family rituals in each setting. It shows various activities related to their cultural and religious context.

Table 4 Description of family rituals	
Family rituals	Description
Mealtime	Breakfast, lunch, dinner
Weekend	Eat out together, watch a movie in the cinema, go out to the mall, go out of town, visit grandmas'/relatives' house
Vacation	Go out of town/abroad, go to grandmas'/relatives' house, go around the city, go to the beach, stay at the villa
Annual celebrations	Birthday celebration, wedding anniversary, commemorate the death of a family member
Special celebrations	" <i>syukuran</i> ," graduation day celebration, regular social gathering
Religious holiday	Eid al-fitr, eid al-adha, christmas, nyepi, easter, and other religious commemorations, prayer activities together
Cultural & ethnic traditions	" <i>aqiqah</i> ," circumcision, pilgrimage/funeral, wedding

In mealtime activities, adolescents usually do their breakfast, lunch, and dinner with their families. In weekend activities, adolescents go out together with their family to eat, watch a movie, shop at the mall, and visit their relatives' houses. In a vacation setting, the activities are almost the same, like weekends, but some go out of town or abroad, and staycation. For the annual and special celebrations, they usually celebrate important events in the family, such as family members' birthdays and "*syukuran*." For religious holidays, they usually do religious activities according to their religion. For the cultural and ethnic traditions, they usually do activities according to their religious moments and family events.

DISCUSSION

The present study aims to examine the association between family rituals and problematic smartphone use in adolescents. Contrary to our hypothesis, no correlation was found between family rituals and PSU in adolescents. A possible explanation for this finding might be that family communication is a key element in family ritual activities. During family rituals, parents can communicate clear limits and expectations regarding children's behavior in using smartphones. Baxter and Clark

(1996) revealed that family communication positively correlates with family rituals. Therefore, it is important to consider the family communication process during family rituals. Another possible explanation for this is the lack of meaning in adolescents toward ritualization. A Study by Fiese (1992) showed differences in the value of ritualization between parents and adolescents: adolescents' level of ritualization was lower than parents. In addition, another factor that needs to be considered related to family rituals in adolescents is the adolescents' satisfaction with their ritual activities (Eaker & Walters, 2002). Therefore, it can be assumed that adolescents' perception (meaning and satisfaction) toward ritualization is important to determine the relationship with PSU.

Family rituals are activities that are carried out regularly and repeatedly in the family in various settings (Fiese, 1992). Based on the results, religious holidays are family rituals most frequently done by the family. Instead of celebrating Eid al-Fitr, Eid al-Adha, Christmas, Nyepi, Easter, and other religious commemorations, some participants also do prayer activities together as daily rituals in the family. Religious rituals that are not holidays may also indicate commitment and connection with the family (Loue, 2017).

On the other hand, mealtime is the least family ritual conducted by participants. It seems possible that these results are due to the different schedules of family members, leading to difficulty finding the time to do a family mealtime. Furthermore, a study by Quaresma (2017) showed that the use of electronic devices (e.g., TV and smartphone) by families could reduce ritualization during family dinnertime. Moreover, due to the development of food delivery services, ritualization (e.g., roles) that should have occurred during mealtime are also diminished (Maimaiti et al., 2018).

Regarding the results of PSU, withdrawal is the most dominant feature among other dimensions of PSU. Withdrawal is a negative feeling that arises when unable to use a smartphone, unable to stop using a smartphone, and becoming irritated when disturbed while using a smartphone (Kwon et al., 2013). A study by Wolniewicz et al. (2018) showed that fear of missing out (FoMO) had a strong correlation with PSU. The characteristics of adolescents who prefer to spend time with friends make teenagers increasingly unable to escape from using smartphones in order to be more engaged with friends (Su et al., 2021). Overuse and preoccupation are less to cause withdrawal.

Overuse of smartphones refers to uncontrolled use of the smartphone and feeling the urge to use the smartphone again after stopping using it (Kwon et al., 2013). Furthermore, the definition of preoccupation refers to the DSM-5 regarding internet gaming disorder, that is, the individual thinks about previous smartphone activity or anticipates using the next smartphone; smartphones have become the dominant activity in everyday life (American Psychiatric Association, 2013).

From demographic data, we found that gender was not significantly correlated with family rituals or PSU. It supports the previous studies that gender was not associated with family rituals (Malaquias et al., 2014) and PSU (Lee & Ogbolu, 2018; Liu et al., 2016). On the other hand, age negatively correlates with family rituals and all of the dimensions. Our findings are in line with longitudinal research of Australian children who found that as children grew older, the amount of time spent with family members declined, and the amount of time they spent alone increased substantially (Baxter, 2018). Another possible explanation between age and family rituals is that as adolescents age, solitude is important for experiencing autonomy, including their need for a space for freedom from parental influences (Amaniti et al., 1988, as cited in Weinstein et al., 2021). This was partly related to adolescents spending more time with smartphones. Adolescents spend more time on screens and virtual spaces during their leisure time (Best et al., 2014; Stiglic & Viner, 2019).

Another interesting finding from the present study is that family rituals and PSU were correlated with the average duration of smartphone use. Family rituals were negatively correlated with the average duration of smartphone use, which means that the lower ritual practice within the family, the longer duration of smartphone use in adolescents. Developments in technology could also affect communication patterns within the family. This is supported by a study by (Tadpatrikar et al., 2021), which found that the use of technology reduces direct communication within the family, family leisure time, and family bonding. On the other hand, PSU was positively correlated with an average duration of smartphone use, which means the longer duration of smartphone use, the more problematic adolescents' smartphone use. This result is in line with the previous study by Kim and Jahng (2019), which found that the number of hours of smartphone usage in a day positively correlated with PSU.

CONCLUSION AND SUGGESTION

The current study aims to investigate the relationship between family rituals and problematic smartphone use in adolescents. This study has shown no significant correlation between family rituals and problematic smartphone use in adolescents. On the other hand, both family rituals and problematic smartphone use significantly correlated with an average duration of smartphone use in adolescents.

This study appears to be the first study that examines the relationship between family rituals and problematic smartphone use in adolescents in Indonesia. The limitation of this study is the use of the convenience sampling method, which limited the generalization of the results of this study to the larger population. Further study is required to better understand the possible link between family communication and with variables investigated. Therefore, further research should focus on the role of family communication as a mediator between family rituals and problematic smartphone use. Probability sampling methods are also recommended to ensure the generalizability of the results.

Even though our study did not find correlations between family rituals and PSU, we found a negative correlation between family rituals and average durations of smartphone use. Thus, a psychoeducational program to encourage family activities is important to reduce the duration of smartphone use in adolescents.

REFERENCES

- Akhlaq, A., Malik, N. I., & Khan, N. A. (2013). Family communication and family system as the predictor of family satisfaction in adolescents. *Science Journal of Psychology*, 63(3), 130–136. <https://doi.org/10.7237/sjpsych/258>
- Alsalameh, A., Harisi, M., Alduayji, M., Almutham, A., & Mahmood, F. (2019). Evaluating the relationship between smartphone addiction/overuse and musculoskeletal pain among medical students at Qassim University. *Journal of Family Medicine and Primary Care*, 8(9), 2953. https://doi.org/10.4103/jfmpc.jfmpc_665_19
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596>
- Asosiasi Penyelenggara Jasa Internet Indonesia. (2020). *Laporan survei internet APJII 2019 – 2020*. Retrieved from <https://apji.or.id/survei>
- Badan Pusat Statistik. (2022). *Proporsi individu yang menguasai/memiliki telepon genggam menurut kelompok umur (persen), 2019-2021*. Retrieved from <https://www.bps.go.id/indicator/27/1222/1/proporsi-individu-yang-menggunakan-telepon-genggam-menurut-kelompok-umur.html>
- Baxter, J. (2018). *Who do adolescents spend their time with?* Growingupinaustralia.gov.au. Retrieved from <https://growingupinaustralia.gov.au/research-findings/annual-statistical-report-2017/who-do-adolescents-spend-their-time>
- Baxter, L. A., & Clark, C. L. (1996). Perceptions of family communication patterns and the enactment of family rituals. *Western Journal of Communication*, 60(3), 254–268. <https://doi.org/10.1080/10570319609374546>
- Beranuy, M., Oberst, U., Carbonell, X., & Chamorro, A. (2009). Problematic Internet and mobile phone use and clinical symptoms in college students: The role of emotional intelligence. *Computers in Human Behavior*, 25(5), 1182–1187. <https://doi.org/10.1016/j.chb.2009.03.001>
- Best, P., Manktelow, R., & Taylor, B. (2014). Online communication, social media and adolescent wellbeing: A systematic narrative review. *Children and Youth Services Review*, 41, 27–36. <https://doi.org/10.1016/j.childyouth.2014.03.001>
- Cha, S.-S., & Seo, B.-K. (2018). Smartphone use and smartphone addiction in middle school students in Korea: Prevalence, social networking service, and game use. *Health Psychology Open*, 5(1), 205510291875504. <https://doi.org/10.1177/2055102918755046>
- Dwyer, R. J., Kushlev, K., & Dunn, E. W. (2018). Smartphone use undermines enjoyment of face-to-face social interactions. *Journal of Experimental Social Psychology*, 78, 233–239. <https://doi.org/10.1016/j.jesp.2017.10.007>
- Eaker, D. G., & Walters, L. H. (2002). Adolescent satisfaction in family rituals and psychosocial development: A

- developmental systems theory perspective. *Journal of Family Psychology*, 16(4), 406–414. <https://doi.org/10.1037/0893-3200.16.4.406>
- Elhai, J. D., Dvorak, R. D., Levine, J. C., & Hall, B. J. (2017). Problematic smartphone use: A conceptual overview and systematic review of relations with anxiety and depression psychopathology. *Journal of Affective Disorders*, 207, 251–259. <https://doi.org/10.1016/j.jad.2016.08.030>
- Fiese, B. H. (1992). Dimensions of family rituals across two generations: Relation to adolescent identity. *Family Process*, 31(2), 151–162. <https://doi.org/10.1111/j.1545-5300.1992.00151.x>
- Fiese, B. H., & Kline, C. A. (1993). Development of the family ritual questionnaire: Initial reliability and validation studies. *Journal of Family Psychology*, 6(3), 290–299. <https://doi.org/10.1037/0893-3200.6.3.290>
- Fiese, B. H., Tomcho, T. J., Douglas, M., Josephs, K., Poltrock, S., & Baker, T. (2002). A review of 50 years of research on naturally occurring family routines and rituals: Cause for celebration? *Journal of Family Psychology*, 16(4), 381–390. <https://doi.org/10.1037/0893-3200.16.4.381>
- Guo, N., Wang, M. P., Luk, T. T., Ho, S. Y., Fong, D. Y. T., Chan, S. S., & Lam, T. H. (2019). The association of problematic smartphone use with family well-being mediated by family communication in Chinese adults: A population-based study. *Journal of Behavioral Addictions*, 8(3), 412–419. <https://doi.org/10.1556/2006.8.2019.39>
- Hasanah, R. A., & Latifah, M. (2021). Investigasi online resilience remaja: Eksplanasi peranan karakteristik remaja, karakteristik keluarga, kelekatan remaja-orang tua, regulasi emosi, dan hubungan persahabatan. *Jurnal Ilmu Keluarga dan Konsumen*, 14(3), 270–281. <https://doi.org/10.24156/jikk.2021.14.3.270>
- Haug, S., Castro, R. P., Kwon, M., Filler, A., Kowatsch, T., & Schaub, M. P. (2015). Smartphone use and smartphone addiction among young people in Switzerland. *Journal of Behavioral Addictions*, 4(4), 299–307. <https://doi.org/10.1556/2006.4.2015.037>
- Hawi, N. S., & Samaha, M. (2017). Relationships among smartphone addiction, anxiety, and family relations. *Behaviour & Information Technology*, 36(10), 1046–1052. <https://doi.org/10.1080/0144929x.2017.1336254>
- Henneberger, A. K., Gest, S. D., & Zadzora, K. M. (2019). Preventing adolescent substance use: A content analysis of peer processes targeted within universal school-based programs. *The Journal of Primary Prevention*, 40(2), 213–230. <https://doi.org/10.1007/s10935-019-00544-5>
- Horwood, S., & Anglim, J. (2018). Personality and problematic smartphone use: A facet-level analysis using the Five Factor Model and HEXACO frameworks. *Computers in Human Behavior*, 85, 349–359. <https://doi.org/10.1016/j.chb.2018.04.013>
- Horwood, S., & Anglim, J. (2019). Problematic smartphone usage and subjective and psychological well-being. *Computers in Human Behavior*, 97, 44–50. <https://doi.org/10.1016/j.chb.2019.02.028>
- Huang, S., Lai, X., Xue, Y., Zhang, C., & Wang, Y. (2021). A network analysis of problematic smartphone use symptoms in a student sample. *Journal of Behavioral Addictions*, 9(4), 1032–1043. <https://doi.org/10.1556/2006.2020.00098>
- Jamil, R. A., Gunarya, A., & Kusmarini, D. (2019). Ritual keluarga sebagai diskriminan keberfungsian keluarga. *Jurnal Psikologi Sosial*, 17(1), 46–56. <https://doi.org/10.7454/jps.2019.7>
- Kalhari, S. M., Mohammadi, M. R., Alavi, S. S., Jannatifard, F., Sepahbodi, G., Reisi, M. B., Sajedi, S., Farshchi, M., KhodaKarami, R., Kasvae, V. H. (2015). Validation and psychometric properties of mobile phone problematic use scale (MPPUS) in university students of Tehran. *Iranian J Psychiatry*, 10(1), 25–31.
- Kim, D., & Jahng, K. E. (2019). Children's self-esteem and problematic smartphone use: The moderating effect of family rituals. *Journal of Child and Family Studies*, 28(12), 3446–3454. <https://doi.org/10.1007/s10826-019-01526-1>
- Kim, H.-J., Min, J.-Y., Min, K.-B., Lee, T.-J., & Yoo, S. (2018). Relationship among family environment, self-control, friendship quality, and adolescents' smartphone addiction in South Korea: Findings from nationwide data. *PLOS ONE*, 13(2), e0190896. <https://doi.org/10.1371/journal.pone.0190896>

- 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 (SAS). *PLoS ONE*, 8(2), e56936. <https://doi.org/10.1371/journal.pone.0056936>
- Lee, E. J., & Ogbolu, Y. (2018). Does parental control work with smartphone addiction? *Journal of Addictions Nursing*, 29(2), 128–138. <https://doi.org/10.1097/jan.0000000000000222>
- Lee, S.-Y., Lee, D.-H., & Han, S.-K. (2016). The effects of posture on neck flexion angle while using a smartphone according to duration. *Journal of the Korean Society of Physical Medicine*, 11(3), 35–39. <https://doi.org/10.13066/kspm.2016.11.3.35>
- Lee, Y.-K., Chang, C.-T., Lin, Y., & Cheng, Z.-H. (2014). The dark side of smartphone usage: Psychological traits, compulsive behavior and technostress. *Computers in Human Behavior*, 31, 373–383. <https://doi.org/10.1016/j.chb.2013.10.047>
- Lenhart, A. (2015). *Teens, technology and friendships*. Pew Research Center: Internet, Science & Tech; Pew Research Center: Internet, Science & Tech. <https://www.pewresearch.org/internet/2015/08/06/teens-technology-and-friendships/>
- Li, W., Garland, E. L., & Howard, M. O. (2014). Family factors in Internet addiction among Chinese youth: A review of English- and Chinese-language studies. *Computers in Human Behavior*, 31, 393–411. <https://doi.org/10.1016/j.chb.2013.11.004>
- Liu, C.-H., Lin, S.-H., Pan, Y.-C., & Lin, Y.-H. (2016). Smartphone gaming and frequent use pattern associated with smartphone addiction. *Medicine*, 95(28), e4068. <https://doi.org/10.1097/md.00000000000004068>
- Liu, Q.-Q., Zhou, Z.-K., Yang, X.-J., Kong, F.-C., Niu, G.-F., & Fan, C.-Y. (2017). Mobile phone addiction and sleep quality among Chinese adolescents: A moderated mediation model. *Computers in Human Behavior*, 72, 108–114. <https://doi.org/10.1016/j.chb.2017.02.042>
- Loue, S. (2017). *Handbook of religion and spirituality in social work practice and research*. Imprint Springer.
- Maimaiti, M., Zhao, X., Jia, M., Ru, Y., & Zhu, S. (2018). How we eat determines what we become: opportunities and challenges brought by food delivery industry in a changing world in China. *European Journal of Clinical Nutrition*, 72(9), 1282–1286. <https://doi.org/10.1038/s41430-018-0191-1>
- Malaquias, S., Crespo, C., & Francisco, R. (2014). How do adolescents benefit from family rituals? Links to social connectedness, depression and anxiety. *Journal of Child and Family Studies*, 24(10), 3009–3017. <https://doi.org/10.1007/s10826-014-0104-4>
- Mangialavori, S., Russo, C., Jimeno, M. V., Ricarte, J. J., D'Urso, G., Barni, D., & Cacioppo, M. (2021). Insecure attachment styles and unbalanced family functioning as risk factors of problematic smartphone use in Spanish young adults: A relative weight analysis. *European Journal of Investigation in Health, Psychology and Education*, 11(3), 1011–1021. <https://doi.org/10.3390/ejihpe11030075>
- Marciano, L., Driver, C. C., Schulz, P. J., & Camerini, A.-L. (2022). Dynamics of adolescents' smartphone use and well-being are positive but ephemeral. *Scientific Reports*, 12(1), 1316. <https://doi.org/10.1038/s41598-022-05291-y>
- Mcgoldrick, M., Carter, E. A., & Garcia-Preto, N. (2016). *The expanding family life cycle: Individual, family, and social perspectives* (5th ed.). Pearson Education, Inc.
- Nielsen, P., Favez, N., & Rigter, H. (2020). Parental and Family Factors Associated with Problematic Gaming and Problematic Internet Use in Adolescents: a Systematic Literature Review. *Current Addiction Reports*, 365–386. <https://doi.org/10.1007/s40429-020-00320-0>
- Quaresma, A. U. M. (2017). *Technologies are coming over for dinner: Do ritual participation and meaning mediate effects on family life?* (Master's thesis). University of Lisbon, Lisbon, Portugal.
- Santrock, J. W. (2019). *A topical approach to life-span development* (10th ed.). McGraw-Hill Education.
- Shi, X., Wang, J., & Zou, H. (2017). Family functioning and internet addiction among Chinese adolescents: The mediating roles of self-esteem and loneliness. *Computers in Human Behavior*, 76, 201–210. <https://doi.org/10.1016/j.chb.2017.07.028>

- Spagnola, M., & Fiese, B. H. (2007). Family routines and rituals. *Infants & Young Children*, 20(4), 284–299. <https://doi.org/10.1097/01.iyc.0000290352.32170.5a>
- Stiglic, N., & Viner, R. M. (2019). Effects of screentime on the health and well-being of children and adolescents: A systematic review of reviews. *BMJ Open*, 9(1). <https://doi.org/10.1136/bmjopen-2018-023191>
- Su, S., Larsen, H., Cousijn, J., Wiers, R. W., & Van Den Eijnden, R. J. J. M. (2022). Problematic smartphone use and the quantity and quality of peer engagement among adolescents: A longitudinal study. *Computers in Human Behavior*, 126, 107025. <https://doi.org/10.1016/j.chb.2021.107025>
- Tadpatrikar, A., Sharma, M. K., & Viswanath, S. S. (2021). Influence of technology usage on family communication patterns and functioning: A systematic review. *Asian Journal of Psychiatry*, 102595. <https://doi.org/10.1016/j.ajp.2021.102595>
- van Deursen, A. J. A. M., Bolle, C. L., Hegner, S. M., & Kommers, P. A. M. (2015). Modeling habitual and addictive smartphone behavior. *Computers in Human Behavior*, 45, 411–420. <https://doi.org/10.1016/j.chb.2014.12.039>
- van Velthoven, M. H., Powell, J., & Powell, G. (2018). Problematic smartphone use: Digital approaches to an emerging public health problem. *DIGITAL HEALTH*, 4(4), 205520761875916. <https://doi.org/10.1177/2055207618759167>
- Vaterlaus, J. M., Aylward, A., Tarabochia, D., & Martin, J. D. (2021). “A smartphone made my life easier”: An exploratory study on age of adolescent smartphone acquisition and well-being. *Computers in Human Behavior*, 114, 106563. <https://doi.org/10.1016/j.chb.2020.106563>
- Wacks, Y., & Weinstein, A. M. (2021). Excessive smartphone use is associated with health problems in adolescents and young adults. *Frontiers in Psychiatry*, 12, 669042. <https://doi.org/10.3389/fpsy.2021.669042>
- Wang, P., & Lei, L. (2019). How does problematic smartphone use impair adolescent self-esteem? A moderated mediation analysis. *Current Psychology*, 40(6), 2910–2916. <https://doi.org/10.1007/s12144-019-00232-x>
- Weinstein, N., Nguyen, T., & Hansen, H. (2021). What time alone offers: Narratives of solitude from adolescence to older adulthood. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.714518>
- Wolin, S. J., & Bennett, L. A. (1984). Family rituals. *Family Process*, 23, 401-420.
- Wolniewicz, C. A., Tiarniyu, M. F., Weeks, J. W., & Elhai, J. D. (2018). Problematic smartphone use and relations with negative affect, fear of missing out, and fear of negative and positive evaluation. *Psychiatry Research*, 262, 618–623. <https://doi.org/10.1016/j.psychres.2017.09.058>