

DETERMINANTS OF ADOLESCENT SELF-CONCEPT IN THE DIGITAL AGE: A CROSS-SECTIONAL ANALYSIS

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ABSTRACT

Introduction:

Adolescent self-concept is a critical developmental factor that shapes identity, social interaction, and mental well-being. In the era of digitalization, self-concept may be influenced by a variety of factors, including parenting styles, peer relationships, exposure to bullying, and social media usage. The objective of this study was to identify the factors influencing adolescent self-concept in the digital era, with specific attention to parenting style, peer relationships, bullying experiences, and social media use.

Methods:

A descriptive quantitative study with a cross-sectional design was conducted among 533 junior high school students, selected through simple random sampling. Data were collected using standardized instruments measuring self-concept, parenting style, peer relationships, bullying behavior, and social media usage. Statistical analyses included Pearson correlation, Independent t-test, Kruskal–Wallis test, and linear regression to assess associations and predictive relationships.

Results:

The majority of participants were female (54.4%) and in the eighth grade (58.7%), with a mean age of 13 years. Most identified as Muslim (97%) and of Sundanese ethnicity (88.6%). The mean self-concept score was 93.90 (SD ±10.848), and peer relationship score was 58.94 (SD ±4.731). Permissive parenting was the most commonly reported style. The mean scores for social media use and bullying behavior were 57.00 (SD ±6.056) and 43.53 (SD ±11.519), respectively. Bivariate analysis indicated significant relationships between self-concept and gender ($p = 0.02$), class level ($p = 0.05$), parenting style ($p < 0.001$), peer relationships ($p < 0.001$), and bullying ($p < 0.001$).

Conclusion:

Adolescent self-concept in the digital era is significantly influenced by both demographic and psychosocial factors, including gender, class level, parenting style, peer dynamics, and bullying experiences. These findings underscore the need for early preventive efforts by nurses, educators, and mental health professionals to support healthy self-concept development. Further research should focus on intervention design and evaluation to enhance self-concept among adolescents in diverse digital and social contexts.

Keywords: Self-Concept; Parenting style; Bullying; Social media

INTRODUCTION

Self-concept is defined as a comprehensive and deeply rooted perception of oneself, formed through individual experiences and interactions with others (Saputro & Sugiarti, 2021). During adolescence, particularly in the early teenage years, individuals experience significant psychosocial development, often characterized by an identity crisis, heightened curiosity, and increased

susceptibility to external influences such as peer pressure (Siswopranoto et al., 2021).

The emergence of the digitalization era, marked by rapid technological advancement, has significantly transformed the educational and social landscape. While offering various benefits, digital technology also presents considerable challenges—especially for adolescents in school settings. The shift to internet-based learning, accelerated by the COVID-19 pandemic, has resulted in reduced face-to-face interaction,

increased screen time, and limited social engagement (Andini & Pudjiati, 2021). These conditions may influence the psychological well-being and self-concept of adolescents.

Empirical studies highlight the complex relationship between self-concept and various environmental and psychosocial factors. For instance, Krisphianti and Ningsih (2021) found that adolescents with a low self-concept were more likely to disengage from school, show poor discipline in completing assignments, and exhibit limited peer interaction. Parenting style is also a critical determinant: authoritarian and permissive parenting have been associated with negative self-concept formation, whereas democratic parenting is more likely to foster positive self-perception (Ragelienė & Justickis, 2016).

The widespread use of social media has become another influential factor in adolescent identity formation. Firdaus et al. (2021) reported that the pandemic increased adolescents' reliance on social media platforms for socialization and self-expression. Awang et al. (2021) observed that adolescents often curate their self-image online to gain validation and social recognition. Similarly, Kusuma and Oktavianti (2020) demonstrated that popular platforms such as TikTok can significantly affect how adolescents perceive themselves.

Additionally, peer interaction plays a crucial role in shaping adolescent self-concept. Positive peer relationships can enhance self-esteem and social skills, while negative experiences such as bullying may lead to diminished self-worth and psychological distress (Dongoran & Boiliu, 2020; Kholifah, 2019). Given these dynamics, it is imperative to explore the multifactorial influences on self-concept in adolescents, particularly in the context of digitalization and its implications for mental health and social development.

Given the profound influence of digitalization on adolescent development, it is essential to examine how various psychosocial and environmental factors contribute to the formation of self-concept in

this population. This study aims to identify and analyze the factors associated with self-concept among adolescents in the era of digitization, including parenting style, peer relationships, bullying experiences, and social media usage. By understanding these determinants, this research seeks to provide evidence-based insights that can inform interventions and policies to promote positive self-concept development among adolescents in the context of rapid technological change.

METHOD

Study Design

This study employed a descriptive quantitative approach using a cross-sectional design to examine the factors influencing self-concept among adolescents in the digital era.

Study Setting and Population

The study was conducted at SMP Negeri 4 Cimahi, West Java, Indonesia, involving a total population of 1,293 students. The sample size was calculated using G*Power version 3.1.9.4, with a multiple linear regression model (fixed model, R^2 deviation from zero), assuming a small effect size ($f^2 = 0.05$), $\alpha = 0.05$, and a power of 0.95. Based on this calculation, the required minimum sample size was determined.

Sampling Technique

A simple random sampling technique was employed to ensure representativeness. The randomization process was facilitated using a digital lottery tool—Lucky Wheel Lucky Draw—to randomly select participants from the population list.

Research Instruments

Self-Concept

The Tennessee Self Concept Scale (TSCS) adapted by Marbun (2020) was used to assess adolescent self-concept. The scale includes 25 items rated on a 5-point Likert scale ranging from 1 (always false) to 5 (always true). Total scores range from 25 to 125, with higher scores indicating a more

positive self-concept. The instrument demonstrated high reliability with a Cronbach's alpha of 0.963.

Bullying

The Adolescent Peer Relations Instrument (APRI) developed by Parada et al. (2005) was used to measure bullying behavior. This tool consists of 36 items, divided into two sections: 18 items for bullying perpetrators and 18 items for victims, each scored on a 6-point Likert scale (1 = never, 6 = every day). Total scores range from 36 to 216, with higher scores indicating more frequent involvement in bullying. The instrument has strong psychometric properties, with Cronbach's alpha values of 0.93 (perpetrators) and 0.95 (victims), and item validity coefficients greater than 0.82.

Parenting Style

Parenting style was assessed using the Parenting Styles and Dimensions Questionnaire (PSDQ) developed by Robinson & Espelage (2012) and adapted by Tria. The PSDQ consists of 32 items on a 5-point Likert scale and covers three parenting domains: authoritative, authoritarian, and permissive. Internal consistency reliability coefficients were 0.91 (authoritative), 0.86 (authoritarian), and 0.75 (permissive).

Peer Relationships

Peer relationships were measured using a scale developed by Eka & Chambers (2019), comprising 21 items rated on a 3-point Likert scale. Total scores range from 21 to 63, where higher scores reflect stronger and more positive peer relationships. The reliability of the scale was reported as Cronbach's alpha = 0.627.

Social Media Use Intensity

The Social Media Use Intensity Scale developed by Wibowo & Silaen (2018) includes 25 items rated on a 4-point Likert scale. Scores range from 25 to 125, with higher scores reflecting greater intensity of social media use. The instrument has demonstrated acceptable internal

consistency with a Cronbach's alpha of 0.625.

Data Collection Procedure

Data collection was conducted digitally via Google Forms. The researchers first joined the class WhatsApp groups and distributed informed consent forms to students and their parents. After obtaining consent, detailed instructions for completing the questionnaire were provided. Participation was voluntary, and respondents were assured of anonymity and confidentiality.

Data Analysis

Data were analyzed using univariate, bivariate, and multivariate statistical techniques. Descriptive statistics summarized the demographic and main variable distributions. Bivariate analysis explored relationships between variables, while multivariate regression was used to identify significant predictors of self-concept.

Ethical Considerations

The study adhered to the principles of research ethics, including anonymity, informed consent, beneficence, non-maleficence, justice, and confidentiality. Ethical approval was obtained from the appropriate institutional review board prior to data collection.

RESULTS

The results of univariate analysis of demographic data include age, gender, class, religion and ethnicity

Table 1 Demographic data of the respondent (n=524)

Variabel	Total n (%) / mean $\pm$ SD
Age	13.55($\pm$ 0.755)
Min = 11	
Max = 15	
Gender	
Male	234 (45.6)
Female	290 (54.4)
Class	
Class VII	210 (41.3)
Class VIII	313 (58.7)

Religion

Islam	517 (97)
Kristen	14 (2.6)
Catholic	2 (0.4)

Ethnicity

Sundanese	472 (88.6)
Javanese	39 (7.3)
Batak	3 (0.6)
Minang	18 (3.6)

More than half of the respondents were female (54.4%), at class VIII (58.7%), with an average age was 13 years old. Almost all respondents were Muslim (97%), and Sundanese (88.6%).

Tabel 2 Dependent and Independent variable (N=524)

Variabel	Min-Max	Mean ($\pm$ SD)
Self-Concept	52-123	93.90 ($\pm$ 10.848)
Peer Group Parenting Style	23-63	58.94 ($\pm$ 4.731)
Authoritatif	25-75	38.90 $\pm$ 8.838)
Authoritarian	14-58	32.09
Permissif	5-25	($\pm$ 7.424)
		13.54 ($\pm$ 3.64)
Bullying (APRI)	36-124	43.53 ($\pm$ 11.519)
APRI part A :		
Bullies	18-54	18.36 ($\pm$ 4.129)
APRI part B :	20-	25.17 ($\pm$ 8.918)
Bullying Victims	102	
Intensities of Social Media	29-85	57.00 ($\pm$ 6.056)

Table 3 Bivariate Analysis

Variabel	Self-Concept	
	ρ -value	r/t
Age	0.051 ^a	
Gender	0.002 ^{**b}	3.175
Class	0.038 ^{*b}	2.078
Religion	0.540 ^c	
Ethnicity	0.109 ^c	
Parenting Style	0.000 ^{**c}	0.194
Bullying	0.000 ^{**a}	-
		0.308
Peer Group	0.000 ^{**a}	0.310
Intensities of Social Media	0.455 ^a	

Note : Pearson Correlation^(a), Independent T Test (b), Kruskal-Wallis (c)

Based on the Bivariate analysis it was found that there was a significant relationship between gender (ρ -value: 0.00), class (ρ -value: 0.03) parenting style (ρ -value: 0.000, $r = 0.194$), bullying (ρ -value: 0.000, $r = -0.308$), and peer group (ρ -value: 0.000, $r = 0.310$) with self-concept.

Table 4 Linear Regression

Variabel	Beta Unstandardized	SE	95% CI		ρ -value
			Lower Bound	Upper Bound	
Class	-2.048	0.860	-3.738	0.357	0.018
Gender	-2.967	0.856	-4.649	1.285	0.001
Parenting Style	0.134	0.024	0.088	0.181	0.000
Peer Group	0.394	0.117	0.164	0.624	0.001
Bullying	-0.226	0.024	-0.321	0.131	0.001

R² Square = 0.198 x 100% = 19.8%

DISCUSSION

The findings of this study indicated that the mean self-concept score among adolescents was 93.90 (SD = 10.848), with scores ranging from 52 to 123. This suggests a generally moderate to high level of self-concept among the participants. According to Marni and Anggreny (2018), self-concept can manifest positively or negatively depending on the adolescent's perception of acceptance. Adolescents who feel accepted and supported are more likely to develop a positive self-concept, whereas those who feel rejected may internalize negative beliefs about themselves.

In this study, 37.7% of respondents reported being satisfied with their current condition, indicating a degree of self-acceptance and gratitude. This finding aligns with Suhendra et al. (2016), who emphasized that individuals with a positive self-concept

typically recognize and accept their personal strengths and weaknesses, possess rational expectations, and demonstrate realistic self-evaluation.

The demographic profile showed that 54.4% of the respondents were female. Psychologically, female adolescents often exhibit higher levels of academic motivation and are more conscientious in task completion, which contributes to better academic performance and potentially enhances their self-concept (Sujadi, 2018). Furthermore, females were found to be more attentive to physical appearance, social interactions, and emotional expression—factors that influence self-image and self-worth during adolescence.

The majority of participants (58.7%) were eighth-grade students (class VIII). At this stage, students are typically more adapted to the academic environment and show greater readiness to engage in learning compared to those in lower grades. This observation is supported by Nova et al. (2021), who reported that students in seventh grade experience higher anxiety levels during the transition to face-to-face learning, potentially impacting self-concept development.

The advancement of digital technology and widespread use of social media were also relevant factors. Adolescents today are highly engaged in digital platforms, which can both support and hinder self-concept formation. On one hand, digital media can provide opportunities for self-expression and identity exploration (Firdaus et al., 2021); on the other hand, excessive exposure to idealized content can promote unrealistic comparisons and lead to dissatisfaction with oneself.

The bivariate analysis demonstrated a significant relationship between parenting style and adolescent self-concept, consistent with findings by Saraswatia et al. (2015). Parental involvement plays a foundational role in shaping a child's self-concept, particularly because parents are the earliest and most influential agents of socialization. Diananda (2018) highlighted that children deprived of parental care, such as street

children, tend to develop low self-esteem due to the absence of consistent emotional support and guidance.

Peer relationships also emerged as a critical influence, especially during adolescence when peer approval becomes a major source of validation. As noted by Saraswatia et al. (2015), adolescents often rely more heavily on peer interactions than parental influence for emotional support, identity formation, and social comparison.

Another important factor identified was bullying. The study revealed a negative correlation between self-concept and bullying, indicating that adolescents with lower self-concept are more vulnerable to bullying experiences. This is consistent with prior findings (Herdyanti & Margaretha, 2017; Saifullah, 2015), which show that adolescents exposed to bullying often suffer from low self-esteem, negative self-evaluation, and persistent emotional distress. Prolonged exposure to such adversity can severely impair self-concept development and social confidence.

CONCLUSION

This study underscores the multifaceted nature of self-concept among adolescents in the digitization era. Factors such as gender, grade level, parental involvement, peer relationships, bullying experiences, and digital engagement were shown to significantly influence self-concept.

For nursing practice, it is essential to design preventive strategies and educational programs that promote positive self-concept in adolescents. Interventions should include family-centered approaches, school-based counseling, digital literacy education, and anti-bullying campaigns.

Future researchers are encouraged to conduct interventional studies that aim to improve adolescent self-concept through structured programs, particularly in school or community settings. Longitudinal studies are also recommended to assess how the digital environment continues to shape adolescent identity development over time.

REFERENCE

- Andini, M., & Pudjiati, S. R. R. (2021). Gambaran psikologis siswa-siswi SMA selama sekolah dari rumah akibat pandemi COVID-19 di Indonesia. *Psikostudia: Jurnal Psikologi*, 10(3), 217–225.
- Awang, J. A., Prayitno, I. S. P., & Engel, J. D. (2021). Strategi Pendidikan Agama Kristen bagi Remaja dalam Membentuk Konsep Diri guna Menghadapi Krisis Identitas akibat Penggunaan Media Sosial. *KHARISMATA: Jurnal Teologi Pantekosta*, 4(1), 98–114.
- Diananda, A. (2018). Urgensi Pendidikan Karakter Dalam Pembentukan Konsep Diri Anak. *ISTIGHNA: Jurnal Pendidikan Dan Pemikiran Islam*, 1(2), 1–21.
- Dongoran, D., & Boiliu, F. M. (2020). Pergaulan teman sebaya dalam pembentukan konsep diri siswa. *Jurnal Educatio FKIP Unma*, 6(2), 381–388.
- Eka, N. G. A., & Chambers, D. (2019). Incivility in nursing education: A systematic literature review. *Nurse Education in Practice*, 39, 45–54.
- Firdaus, D., Grayxena, S., Qonita, A. Z., Rakhmawati, N. A., & Hidayat, R. (2021). Analisis Pengaruh TikTok Terhadap Remaja Di Bawah Umur 18 Tahun Pada Masa Pandemi. *Prosiding Seminar Nasional Teknologi Dan Sistem Informasi*, 1(1), 10–20.
- Herdyanti, F., & Margaretha, M. (2017). Hubungan Antara Konsep Diri Dengan Kecenderungan Menjadi Korban Bullying Pada Remaja Awal. *Jurnal Psikologi Undip*, 15(2), 92–98.
- Kholifah, S. (2019). Pengaruh Bullying terhadap Konsep Diri Remaja di SMK Kesehatan Kendedes Malang. *Jurnal Kesehatan Mesencephalon*, 5(2).
- Krisphianti, Y. D., & Ningsih, R. (2021). Pengembangan Instrumen Skala Konsep Diri Akademik Peserta Didik SMP Kota Kediri Pasca Pandemi Covid-19. *Prosiding Seminar Nasional Bimbingan Dan Konseling Universitas Ahmad Dahlan*, 1.
- Kusuma, D. N. S. C., & Oktavianti, R. (2020). Penggunaan aplikasi media sosial berbasis audio visual dalam membentuk konsep diri (studi kasus aplikasi tiktok). *Koneksi*, 4(2), 372–379.
- Lumbantoruan, L., Widiastuti, W., & Tangkin, W. P. (2021). Penerapan rules and procedures untuk meningkatkan kedisiplinan siswa. *Jurnal Educatio Fkip Unma*, 7(2), 546–553.
- Marni, E., & Anggreny, Y. (2018). Hubungan Konsep Diri pada Remaja Terhadap Kemampuan Menghadapi Perilaku Bullying di SMKN 2 Pekanbaru. *Jurnal Ners Indonesia*, 9(1), 51–58.
- Nova, P., Gani, R. A., & Julianti, R. R. (2021). Tingkat Kecemasan Siswa Kelas VII SMP Negeri 2 Telagasari dalam Pembelajaran Pendidikan Jasmani Menghadapi Pertemuan Tatap Muka di Sekolah Pada Masa Pandemi Covid 19. *Jurnal Ilmiah Wahana Pendidikan*, 7(5), 292–300.
- Parada, R. H., Marsh, H. W., Craven, R., & Papworth, B. A. (2005). Bullying in schools: what can we glean from self-concept theory? *Australian Association for Research in Education 2005 Conference Papers*.
- Ragelienė, T., & Justickis, V. (2016). Interrelations of adolescent's identity development, differentiation of self and parenting style. *Psichologija*, 53, 24–43.
- Robinson, J. P., & Espelage, D. L. (2012). Bullying explains only part of LGBTQ–heterosexual risk disparities: Implications for policy and practice. *Educational Researcher*, 41(8), 309–319.
- Saifullah, F. (2015). Hubungan antara konsep diri dengan bullying. *Psikoborneo: Jurnal Ilmiah Psikologi*, 3(3).
- Saputro, Y. A., & Sugiarti, R. (2021). Pengaruh dukungan sosial teman sebaya dan konsep diri terhadap penyesuaian diri pada siswa sma kelas x. *Philanthropy: Journal of Psychology*, 5(1), 59–72.

- Saraswatia, G. K., Zulpahiyana, Z., & Arifah, S. (2015). Faktor-faktor yang mempengaruhi konsep diri remaja di SMPN 13 Yogyakarta. *JNKI (Jurnal Ners Dan Kebidanan Indonesia)(Indonesian Journal of Nursing and Midwifery)*, 3(1), 33–38.
- Siswopranoto, A., Ikhsan, A., Saputri, G., Aisyah, I., & Ester, R. (2021). SOSIALISASI INTERNET SEHAT DI KALANGAN REMAJA UNTUK MEMINIMALKAN DAMPAK NEGATIF DARI BERINTERNET PADA SMP ISLAM AL WASATIYAH. *Jurnal Ilmu Komputer*, 4(2), 44–49.
- Suhendra, M., Neviyarni, S., & Ahmad, R. (2016). Kontribusi Motivasi Berprestasi terhadap Regulasi Diri siswa Membolos di Madrasah Aliyah Negeri 2 Payakumbuh serta Implikasinya terhadap Layanan Bimbingan dan Konseling. *Konselor*, 5(2), 124–132.
- Sujadi, E. (2018). Pengaruh Konsep Diri dan Locus of Control Terhadap Motivasi Berprestasi. *Educational Guidance and Counseling Development Journal*, 1(1), 32–51.
- Wibowo, ., & Silaen, S. M. J. (2018). Hubungan Self-Esteem dan Penggunaan Media Sosial Instagram dengan Perilaku Narsisme di Kalangan Siswa Kelas VIII SMPK Penabur Bintaro Jaya. *IKRA-ITH HUMANIORA: Jurnal Sosial Dan Humaniora*, 2(2), 109–115.