Early Maladaptive Schema as Predictor of Narcissistic Traits in Late Adolescent

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Abstract

There have been discussions about elevated narcissistic traits in late adolescents in the 'Me' generation by publications in the public sphere and professional literature. Previous findings have confirmed that late adolescents, compared to adults, tend to have higher levels of narcissism, which can contribute to several detrimental behaviours. It was hypothesized that higher narcissistic traits in late adolescence would be associated with a pervasive and maladaptive pattern of thoughts referred to as Early Maladaptive Schemas (EMSs). This study investigates EMSs as predictors of narcissistic traits in late adolescents. Using convenience sampling, a quantitative non-experimental method was used by administering the Narcissism Scale and Young Schema Questionnaire Short Form 3 to late adolescents between 18 to 21 years old in Indonesia. The sample consisted of 403 participants (Mean age = 19.92 years), with 133 males and 270 females. The results were analyzed using the Ordinary Least Square regression technique while controlling for age, gender, and socioeconomic status. The findings supported the research hypothesis - EMS significantly predicted grandiose narcissism ($\beta = 0,398; t = 8,706; p < 0,001$) and vulnerable narcissism ($\beta = 0,718, t = 21,181; p < 0,001$) in late adolescent, even after including the control variables. It was also found that both similarities and differences in the EMSs predicted grandiose and vulnerable narcissism. This study suggests the importance of identifying and treating maladaptive schemas in late adolescents and educating them about accompanying narcissistic traits.

Keywords: Early Maladaptive Schema, Narcissistic Traits, Grandiose Narcissism, Vulnerable Narcissism, Late Adolescent.

Introduction

The younger generation has been given titles by researchers and media, such as "the selfie generation", "me generation", and "the entitled generation" (Rastati, 2017; Shaw, 2021; Stein, 2013; Zarra, 2017). These nicknames suggest that this generation tends to display themselves more on social media, feel more entitled, and prioritize themselves more than others (Derry et al., 2017; Rastati, 2017; Twenge et al., 2012). These characteristics of the younger generation share similarities with the characteristics of narcissism. Narcissism involves personality traits that can be found in the average population and are characterized by the tendency to care more about oneself than others, seek recognition from many people, believe that one is more attractive than others, feel entitled to particular treatments, and lack tolerance for criticism (Derry et al., 2017; Krizan & Herlache, 2018; Miller et al., 2017). Despite being a part of a typical personality trait, in a more extreme form, narcissism can dominate an individual's life and cause discomfort to oneself and others and can take the form of a pathological personality disorder (Derry et al., 2017; Krizan & Herlache, 2018; Miller et al., 2017; Miller & Campbell, 2010).

Several studies have emphasized the risk of higher narcissistic traits in the younger generation, especially in late adolescence, compared to older groups (Chopik & Grimm, 2019; Wood et al., 2020). One study from Wood et al. (2020) found that late adolescents have narcissistic scores that are 46.98% higher than adults (an average of 18.8 compared to 12.7). Higher narcissistic traits in late adolescence might be related to their developmental stage (Chopik & Grimm, 2019; Paulsen et al., 2015). According to Erikson, late adolescence is a critical period for forming one's identity and determining one's place in the world (Papalia & Martorell, 2011; Santrock, 2019). This is shown by the tendency of those in late adolescence to seek more social acceptance through attempting to gain approval and attention from others, be liked by others, and belong with their peers (Altikulaç et al., 2019; Laghi et al., 2019). Possessing the need to get approval from others might increase the expression of narcissism through, for example, showing oneself excessively on social media (Sabekti et al., 2019). Higher narcissistic traits in late adolescence harm relationships through an increase in aggressive behaviour (Kjærvik & Bushman, 2021), sexual violence (Mouilso & Calhoun, 2016), and a decreased capacity to understand other people's perspectives (Lee & Kang, 2020). The scope of the negative impact highlights the importance of understanding the factors contributing to the development of narcissistic traits in late adolescents so that these teenagers can be helped to make a healthier transition to adulthood (Chopik & Grimm, 2019; Lapsley & Aalsma, 2006).

A distorted pattern of views and beliefs about oneself and others may contribute to the increase of narcissistic traits (Pincus & Lukowitsky, 2010; Young et al., 2003; Zeigler-Hill et al., 2010). Especially for late adolescents who are more sensitive to other people's reactions, distorted beliefs that are continuously supported by the environment might encourage these individuals to have a narcissistic mindset that continues to settle and dominate the way they behave in their daily lives (Brummelman et al., 2018; Freeman

& Fox, 2013). These distorted patterns that make up these mindsets termed Early Maladaptive Schemas (EMSs) by Young et al. (2003). EMSs are defined as a broad, pervasive life theme or pattern comprised of memories, emotions, cognitions, and bodily sensations regarding oneself and one's relationship with others, developed during childhood or adolescence, elaborated throughout one's lifetime, and dysfunctional to a significant degree. EMSs are believed to be formed due to unmet needs in early developmental stages. They negatively affect how a person interprets everyday events (Young et al., 2003).

Previous research has found empirical evidence of an association between EMS and narcissism, but the results are still contradicting. One research showed a strong positive association between EMSs and narcissism (Soleimani & Lorzangeneh, 2021). In another research, it is believed that EMSs could explain 23% to 47% of the variance in different dimensions of narcissism (Zeigler-Hill et al., 2010). These studies indicated that the more maladaptive an individual's schema is, the higher their narcissistic traits will be. Although that research showed a positive association, a study by Starbird & Story (2020) found contrasting evidence that EMSs were negatively associated with narcissism, meaning the more maladaptive an individual's schema is, the lower their narcissistic traits will be. These contrasting results yield the need to research this topic further. One possible explanation for this difference is that narcissism is complex, and its conceptualization varies from one piece of literature to the next (Wright & Edershile, 2018). This includes the possibility that EMSs have different associations with different dimensions of narcissism, such as their grandiose and vulnerable counterparts (Zeigler-Hill et al., 2010). Contemporary researchers have also concluded that narcissistic traits are best viewed as multidimensional constructs and that narcissistic inventories need to be adjusted to include the various aspects of narcissism (Crowe et al., 2019; Krizan & Herlache, 2018; Miller et al., 2017). Following this emerging consensus, this research divided narcissism into two aspects,

grandiose and vulnerable narcissism, based on the findings of Wink (1991) to explore the associations between EMSs and narcissism in more depth. These two elements of narcissism are said to have the same antagonistic core. Still, they are expressed differently, with grandiose narcissism showing more dominance, arrogance, and manipulation, while vulnerable narcissism is associated with more defensiveness, insecurity, and proneness to shame (Crowe et al., 2019; Derry et al., 2017; Miller et al., 2017; Wink, 1991).

This study aims to investigate the hypothesis of EMSs as predictors of grandiose and vulnerable narcissistic traits in late adolescents and that they correlate positively with grandiose and vulnerable narcissistic traits in late adolescents.

Method

A total of 403 participants were obtained, with a mean age of 19.92 (SD = 1.224). Participants in this research were obtained through non-probability convenience sampling by sharing the research questionnaire with late adolescents aged 18 to 21 years old in Indonesia who agreed to participate in this research (Neuman, 2014). The research questionnaire was shared on a Google Form, including research information, informed consent, participant demographic information, and questionnaires. Demographic information, including age, gender, and socioeconomic status (SES), has been previously documented as the control variables that might influence narcissism (Chopik & Grimm, 2019; Huxley, 2018; Piff, 2014). SES was obtained by assessing estimated personal monthly expenses according to the article by the World Bank (2019), with a higher individual spending per month indicating a higher level of SES. The description of participants based on demographic data can be seen in Table 1. The majority of participants are 21 years old, female, and according to World Bank (2019), belonged to the middle SES class. Data collection was done by sharing Google Form links through the website and social media from March 9 2022, to March 14 2022.

Table 1. Demographic Information

Demographic	N	%
Age		
18	86	21.3
19	61	15.1
20	56	13.9
21	200	49.6
Gender		
Male	133	33
Female	270	67
SES (Monthly Expenses)		
< Rp. 500,000	125	31.0
Rp. 500,000 – 1,500,000	168	41.7
Rp. 1,500,000 – 3,000,000	74	18.4
Rp. 3,000,000 – 5,000,000	30	7.4
> Rp. 5,000,000	6	1.5

This research measured narcissistic traits using a translated version of the Narcissism Scale (NS), developed by Derry et al. (2017), into Bahasa Indonesia (the official language of Indonesia). The NS scale consists of 20 items with two higher-order factors of narcissistic traits, labelled as grandiose and vulnerable narcissism. Each factor consists of 10 items that measure two dimensions, namely 5 items on the interpersonal dimension and 5 on the intrapersonal dimension. NS was translated into Bahasa Indonesia by an expert team. Examples of NS items include "It's easy for me to control other people" (grandiose

interpersonal) and "I tend to feel humiliated when criticized" (vulnerable intrapersonal). Items are scored on a Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). All items of the NS are positively worded; higher subscale scores indicate higher values for each narcissistic factor. The total score for each factor ranges from 10-60. The reliability test in this study showed the coefficient of Cronbach's Alpha (α) to be 0.764 and 0.705 for vulnerable and grandiose narcissism, respectively, showing them to be sufficiently robust for use in this study.

EMSs were measured using a translated version of the Young Schema Questionnaire Short Form 3 (YSQ-S3) developed by Young and Brown (2005) in the same local language. YSQ-S3 consists of 90 items that measure 18 EMSs. Each EMS consists of 5 items: emotional deprivation, abandonment, mistrust, social isolation, defectiveness, failure, dependence, vulnerability to harm, enmeshment, subjugation, self-sacrifice, emotional inhibition, unrelenting standards, entitlement, insufficient self-control, pessimism, self-punitiveness, and approval-seeking. The same expert team translated the YSQ-S3. An example of YSQ-S3 items is, "I don't have people to give me warmth, holding, and affection" (emotional deprivation schema). Items are scored on a Likert scale ranging from 1 (completely untrue of me) to 6 (describes me perfectly). All items from YSQ-S3 are positively worded; higher scores mean stronger EMSs. The scores range from 90-540. The reliability test of the YSQ-S3 in this study was carried out as a whole and separately for each EMS. Overall, YSQ-S3 showed a Cronbach's Alpha (α) result of 0.966, while for each EMS, it ranged from 0.711 to 0.902 (Mean = 0.815 (SD = 0.06) and Median = 0.828) indicating suitability of the translated YSQ-S3 for use in this study.

This research is a non-experimental quantitative study with a predictive correlational method. Data were analyzed using the Ordinary Least Square (OLS) regression technique, a linear regression technique used to see the relationship between an independent variable and its dependent variable while controlling for other variables that might influence this

relationship (Burton, 2021). All data analysis was performed using the IBM Statistical Package for Social Science (SPSS) for Windows version 25.

Results

Descriptive analysis of EMSs showed a mean value of 306.97 (SD = 69.6), while grandiose narcissism showed a mean value of 35.63 (SD = 7.138) and vulnerable narcissism showed a mean value of 36.48 (SD = 8.839). OLS regression analysis was carried out with grandiose and vulnerable narcissism as dependent variables, with EMSs as predictors while controlling for age, gender, and SES. The regression results are shown in Table 2. The results showed that the EMSs regression model explained 19.2% of the variance of grandiose narcissism significantly with $F_{(4, 398)} = 23.581$, $p < 0.001$, and 55.4% of the variance of narcissism vulnerable significantly with $F_{(4, 398)} = 123.563$, $p < 0.001$. EMSs have a significant effect in predicting grandiose narcissism ($\beta = 0.398$; $t = 8.706$; $p < 0.001$) and vulnerable narcissism ($\beta = 0.718$; $t = 21.181$; $p < 0.001$), even after controlling for age, gender, and SES. These results indicated that the higher the level of EMSs, the higher the grandiose and vulnerable narcissism in the sample of late adolescents used in this study. Within the control variables, it was found that age ($\beta = 0.131$, $p = 0.008$) and SES ($\beta = 0.174$, $p = 0.001$) had a significant influence on grandiose narcissism. Meanwhile, gender ($\beta = 0.120$, $p < 0.001$) had a significant influence on the vulnerable narcissism.

Additional OLS regression was also carried out to see the contribution of each EMS to grandiose and vulnerable narcissism, as shown by Zeigler-Hill et al. (2010). These results are shown in Table 3. From the OLS regression results of each EMS on grandiose narcissism, a significant model was found explaining 40.1% of the variance of grandiose narcissism with $F_{(21, 381)} = 12.136$, $p < 0.001$. Out of the 18 maladaptive schemas, there were seven EMSs that significantly predicted grandiose narcissism and these were the EMSs of entitlement ($\beta = 0.313$, $p < 0.001$), approval-seeking ($\beta = 0.241$, $p < 0.001$), abandonment

(β = 0.171, p = 0.003), unrelenting standards, (β = 0.148, p = 0.006), pessimism (β = -0.144, p = 0.028), mistrust (β = 0.143, p = 0.011), and failure (β = -0.136, p = 0.034). Two EMSs significantly negatively influenced grandiose narcissism, namely the EMSs of failure and pessimism. In the control variables, age (β = 0.131, p = 0.003) and SES (β = 0.157, p = 0.001) had a significant effect on grandiose narcissism.

Table 2. OLS Regression of EMS with Grandiose and Vulnerable Narcissism

	Grandiose Narcissism			Vulnerable Narcissism		
	B	β	t	B	β	t
Age	**0.766**	**0.131**	**2,659**[**]	-0.076	-0.011	-0.288
Gender	-0.093	-0.006	-0,135	**2.248**	**0.120**	**3.527**[***]
Socioeconomic Status	**1.290**	**0.174**	**3.471**[**]	-0.483	-0.053	-1.413
Early Maladaptive Schema	**0.041**	**0.398**	**8,706**[***]	**0.091**	**0.718**	**21.181**[***]
F		23.581[***]			123.563[***]	
R[2]		0.192			0.554	

For vulnerable narcissism, a significant model was found explaining 58.4% of its variance with F(21, 381) = 25.218, p < 0.001. Out of the 18 EMSs, there were five that there were significant predictors - social isolation (β = 0.157, p = 0.003), approval-seeking (β = 0.136, p = 0.004), mistrust (β = 0.124, p = 0.008), abandonment (β = 0.122, p < 0.01), and emotional deprivation (β = 0.095, p < 0.036). Among the control variables, only gender (β = 0.131, p = 0.001) had a significant influence on vulnerable narcissism.

Table 3. OLS Regression of EMS Schema with Grandiose and Vulnerable Narcissism

	Grandiose Narcissism			Vulnerable Narcissism		
	B	β	t	B	β	t
Age	**0.762**	**0.131**	**2.941**[**]	-0.089	-0.012	-0.334
Gender	-0.620	-0.041	-0.910	**2.458**	**0.131**	**3.486**[**]
Socioeconomic Status	**1.164**	**0.157**	**3.440**[**]	-0.262	-0.028	-0.748
Emotional Deprivation	0.039	0.036	0.661	**0.127**	**0.095**	**2.105**[*]
Abandonment	**0.190**	**0.171**	**3.020**[**]	**0.168**	**0.122**	**2.580**[*]
Mistrust	**0.175**	**0.143**	**2.555**[*]	**0.188**	**0.124**	**2.666**[**]
Social Isolation	0.078	0.070	1.107	**0.215**	**0.157**	**2.949**[**]
Defectiveness	0.056	0.055	0.775	0.079	0.063	1.059
Failure	**-0.149**	**-0.136**	**-2.130**[*]	0.023	0.017	0.311
Dependence	-0.023	-0.019	-0.269	0.068	0.046	0.769
Vulnerability to Harm	0.046	0.036	0.571	0.144	0.092	1.732
Enmeshment	-0.083	-0.070	-1.236	0.029	0.020	0.417
Subjugation	-0.042	-0.036	-0.557	0.075	0.052	0.958
Self-Sacrifice	0.021	0.016	0.284	-0.046	-0.029	-0.609
Emotional Inhibition	-0.038	-0.033	-0.590	0.054	0.038	0.800
Unrelenting Standards	**0.216**	**0.148**	**2.738**[**]	0.129	0.071	1.584
Entitlement	**0.435**	**0.313**	**5.602**[***]	0.075	0.044	0.933
Insufficient Self-Control	-0.158	-0.118	-1.938	0.064	0.039	0.764
Pessimism	**-0.175**	**-0.144**	**-2.200**[*]	0.127	0.084	1.535
Self-Punitiveness	0.018	0.013	0.227	-0.114	-0.066	-1.405
Approval-Seeking	**0.297**	**0.241**	**4.242**[***]	**0.208**	**0.136**	**2.872**[**]
F		12.136[***]			25. 218[***]	
R[2]		0.401			0.582	

Discussion

The findings of this research showed that EMSs are highly significant predictors of both grandiose and vulnerable narcissism among late adolescents used in this study (18-21 years old). This was in line with previous research was done by Zeigler-Hill et al. (2010), as well as Soleimani and Lorzangeneh (2021). This research supported the theory that characteristics of narcissism, such as self-centeredness, arrogance, proneness to criticism, and seeking excessive attention, are associated with the development of solid EMSs (Levy et al., 2011; Young et al., 2003). Therefore, assessing and taking measures to weaken EMSs can reduce the development of these associated narcissistic traits that are prone to occur in the late adolescence stage, supported by findings from this study.

Assessing narcissism separately in the form of grandiose and vulnerable dimensions has also been proven to be helpful. Findings from this study showed that differences existed between EMSs and these two dimensions of narcissism. The regression model of EMSs is found to explain greater variance in vulnerable narcissism (R^2 = 55.4%) than grandiose narcissism (R^2 = 19.2%). One of the reasons why the model explains lower variance in grandiose narcissism might be attributed to reciprocal relationships between several EMSs and grandiose narcissism, which was supported by a study conducted by Zeigler-Hill et al. (2010). This relationship may have affected the overall effect of EMSs on grandiose narcissism. Therefore, an additional regression analysis was done to see the contribution of each EMS. The regression model that included each EMS explained the variance of grandiose narcissism (R^2= 40.1%) better than the previous regression model. However, the model was still lower than each EMS's effects on vulnerable narcissism (R^2= 58.2%).

Results also showed that there were similarities as well as differences in the effects of EMSs on both grandiose and vulnerable narcissism. Both aspects of narcissism were most significantly predicted by the EMS as approval-seeking and, to a lesser extent, abandonment, and mistrust EMSs. It is, therefore, likely that these EMSs could be considered central to the development of narcissism. This means that the development of narcissism is influenced by the excessive need to get approval and attention from others but is also associated with the fear of being left or mistreated. This finding is aligned with the previous theory that the development of narcissistic traits is influenced by the need for approval from others and a sensitivity to and defensiveness in the face of rejection (Zeigler-Hill et al., 2010). These characteristics were also explained in the developmental stage of late adolescents who find their identity and position in the world (Hill & Roberts, 2012; Lapsley & Aalsma, 2006). This finding deepens our understanding of the nature of late adolescents' vulnerability to developing excessive narcissistic traits. The fact that different EMSs influenced grandiose and vulnerable narcissism may also explain the differences in which each type of narcissism tends to express itself (Crowe et al., 2019; Kaufman et al., 2020; Krizan & Herlache, 2018; Lapsley & Stey, 2011).

Grandiose narcissism was explicitly influenced by the EMS of entitlement and approval seeking, but to a lesser extent, with the EMS of unrelenting standards and abandonment. In contrast, it was associated negatively, though mildly significantly, with the EMSs of pessimism and failure. This is aligned with the conceptualization of grandiose narcissism that is based on feeling entitled to special privileges and feeling superior to others (Crowe et al., 2019; Krizan & Herlache, 2018; Miller et al., 2017), as well as the need to gain approval from others (Brummelman et al., 2016; Young et al., 2003). The significant association with unrelenting standards EMS also showed that grandiose narcissism tends to have high and perfectionistic standards for oneself. This is aligned with previous findings that grandiose narcissism is associated with placing great importance on high status (Zeigler-Hill et al., 2019). High standards might be necessary to remain superior to others to get validation as well as to avoid rejection, criticism, and feelings that one is not capable

(Brummelman et al., 2016; Young et al., 2003), as grandiose narcissism was also found in this research to be linked with the fear of being abandoned and mistreated. Grandiose narcissism was also found to have a mild and negative correlation with the failure and pessimism EMSs. This means that the lower the tendency to perceive things negatively and that one will fail, the higher the grandiose narcissism will likely be. This might explain the tendency of individuals with grandiose narcissism to reject failure, especially concerning achievement, and tendencies to show themselves in more confident ways (Kucyhnka & Bosson, 2018; Young et al., 2003; Zeigler-Hill et al., 2010).

Contrasting from the grandiose counterpart, vulnerable narcissism was significantly associated with the EMS of social isolation and mistrust and approval seeking. It was also mildly but significantly associated with the EMSs of emotional deprivation and abandonment. Aligned with previous studies, the social isolation and mistrust EMSs might explain the tendency of those with vulnerable narcissism to feel different from others and that others will be unable to understand their problems (Krizan & Herlache, 2018; Lapsley & Stey, 2011; Miller et al., 2021). This isolated feeling might also explain the tendency of those with vulnerable narcissism to pull themselves away when they are criticized and cannot get the things they want (Hart et al., 2020; Kaufman et al., 2020). Meanwhile, the associations with emotional deprivation and abandonment EMSs might explain the lack of affection and attachment felt by those with vulnerable narcissism. This is also aligned with previous research, which found that individuals with higher vulnerable narcissism tend to report more traumatic and neglected childhood experiences (Nguyen & Shaw, 2020; Zajenkowski et al., 2021). This might be a reason to seek approval from others, which would be expressed differently than those with grandiose narcissism. It appears that vulnerable narcissism is associated with gaining approval from others by seeking emotional support and the tendency to pull oneself away from others to avoid being rejected or to

avoid not getting what one wants. The findings of this research provide a more precise conceptualization of grandiose and vulnerable narcissism, as well as the respective EMSs that influence these two aspects in late adolescence.

Within the control variables, age was found to have a significant favourable influence on grandiose narcissism but not on vulnerable narcissism. This means the higher one's age, the higher their grandiose narcissism is likely. Bear in mind that participants in this study were between the ages of 18 to 21 years old. Therefore different results may be obtained from participants with a broader age range as well as those from different generations and with a longitudinal approach (Chopik & Grimm, 2019; Wetzel et al., 2020). Further research will be needed to see if this would be the case.

Concerning gender, it was found that being female significantly predicted vulnerable narcissism, but that gender was not a significant predictor for grandiose narcissism. This finding is aligned with a previous study by Valashjardi et al. (2020) but differs from studies that found grandiose narcissism to be positively correlated with being male (Grijalva et al., 2015; Huxley, 2018). The differences in the level of narcissism by gender can be explained by the differences in social role expectations of women and men. Characteristics of grandiose narcissism, such as appearing assertive and dominant, tend to be more acceptable for men but not for women. This causes women to be more likely to show their narcissistic tendencies in a more indirect and hidden way, namely by showing their vulnerability and powerlessness, which may be unacceptable among men (Green & Maclean, 2021). Meanwhile, the insignificant effect of gender on grandiose narcissism might also mean that with time, the gap in social expectations for women begins to decrease, thus showing that the assertive and dominant side can begin to be accepted among women (Grijalva et al., 2015). However, having said this, the association between females and vulnerable narcissism may also be due to the significantly fewer males in this study compared to females, which may have also influenced the results.

Socioeconomic status (SES) also had a significant relationship with grandiose narcissism but not with vulnerable narcissism. This finding means that grandiose narcissism increases with higher SES. This was also found to be the case by Piff (2014). From previous research, grandiose narcissism is associated with the belief that wealth is a source of power and honour as a way to appear more dominant and better than others (Ng et al., 2011). Thus, having a higher level of SES can be used by individuals with grandiose narcissistic traits to show more power and advantages over others. A higher level of SES has also been associated with a greater sense of entitlement to special privilege, a characteristic of grandiose narcissism (Piff, 2014). This can explain the tendency of individuals with high SES to have higher grandiose narcissistic traits. Meanwhile, vulnerable narcissism was related to materialism and more associated with fragility and low self-confidence and not with the individual's SES level (Sedikides et al., 2018).

There are several strengths and limitations to this research. This study is the first in Indonesia to report a comprehensive relationship between EMSs with narcissistic traits in a sample of late adolescents using a method that follows previous research (Zeigler-Hill et al., 2010). This study used the predictive correlational method that only examined relationships and did not assume causality, which means that the relationship between variables can occur in two directions. Future research can use other methods such as longitudinal or mixed methods with qualitative interviews to examine the dynamics of the development of EMSs and the nature of narcissism in more detail. Several responses were also found not to meet research criteria - multiple identical answers, request retrieval, and the presence of outliers from extreme responses. This resulted in data from 37 participants being removed from the analysis. This study is also limited to adolescents aged 18 to 21, as that is the age that is said to be vulnerable to developing higher narcissistic traits. Therefore, the resulting narcissistic pattern associated with EMSs can only be applied to the same age category. Future

studies can examine EMSs and narcissistic traits in other age groups and a more balanced sample to broaden the generalizability of the results of this study. The results of this study have also controlled for other variables that might affect narcissistic traits, such as age, SES, and gender, but also indicate the possibility that other variables can influence both aspects of narcissistic traits. For example, the EMSs approval-seeking, mistrust, and abandonment affected both narcissistic traits. These, in turn, may be influenced by a pattern of parenting that is cold, rejecting, and invalidating. These negative patterns of parenting have been found to influence narcissistic traits in previous studies (Brummelman et al., 2017; Huxley & Bizumic, 2017; Van Schie et al., 2020). Future research might consider parenting when assessing the development of EMSs and narcissism.

Overall, this study demonstrates the importance of identifying and treating EMSs to prevent the development of excessive narcissistic traits, especially in late adolescents. Late adolescents can take steps to recognize their maladaptive schemas by being aware of one's own recurring dysfunctional behaviours or thoughts. Because the development of maladaptive schemas is also strongly influenced by the social environment, especially parents (Bach et al., 2017), parents need to incorporate a more favourable parenting pattern by using intervention programs such as Good Enough Parenting (Louis & Louis, 2020). Maladaptive schemas can also be addressed and treated in counselling with experts such as psychologists or psychiatrists by using schema therapy.

Conclusion

The results of this study supported the hypothesis that EMSs have a highly significant influence on the development of grandiose narcissism and vulnerable narcissism in late adolescents used in this study, implying that the strength of the EMSs correlates positively with their grandiose and vulnerable narcissistic traits. This study also revealed that the typical EMS associated with grandiose and

vulnerable narcissistic traits most significantly was approval seeking, followed by EMSs of mistrust and abandonment to a lesser degree. Meanwhile, the EMSs of entitlement and social isolation were most associated explicitly with grandiose and vulnerable narcissism, respectively. Parents, educators, and clinicians can take steps to reduce the development of narcissistic traits by reducing the strengths of these EMSs. An early schema-based intervention program, such as Good Enough Parenting, can be done by educating parents to incorporate a more favourable pattern of parenting and prevent the development of maladaptive schemas in their children (Louis & Louis, 2020; Louis et al., 2021).

Acknowledgement

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