

The Relationship Between Machiavelism, Grandiose and Vulnerable Narcissism, and Loneliness Among White Collar Workers

Authors

Ayşenur Çataklı ^{1*}

Affiliations

¹Master's Program in Clinical Psychology, Graduate School of Social Sciences, Yeditepe University, Istanbul, 34755, Turkey

***To whom correspondence should be addressed; E-mail:**
aysenur.catakli@std.yeditepe.edu.tr

Preprint

Abstract

Considering the several negative effects of loneliness as an undesirable and hurtful emotion, it is important to discover how it occurs. Although Machiavellianism and narcissism are associated with loneliness, the number of studies that have investigated their relationship is relatively limited. This study, therefore, aims to investigate the relationship between Machiavellianism, narcissism, and loneliness among white-collar workers. In addition, it is also aimed to examine whether the level of Machiavellianism, narcissism, and loneliness are related to sociodemographic characteristics of the participants, as indicated by several previous studies. The study was carried out with 200 white-collar employees selected by snowball sampling. Data was collected using an online questionnaire that included a sociodemographic information form, Narcissistic Personality Inventory, Hypersensitive Narcissism Scale, Machiavellianism Scale, and UCLA Loneliness Scale. The results failed to indicate a relationship between sociodemographic variables and Machiavellianism and narcissism scale scores. In addition, several significant correlations were obtained between Machiavellianism, narcissism, and loneliness scale variables. Finally, a stepwise multiple regression analysis revealed Distrust subscale of Machiavellianism Scale and Hypersensitive Narcissism Scale scores as well as male gender as significant predictors of loneliness. The findings presented by this study are considered to make a significant contribution to the limited and controversial literature.

Keywords: Loneliness; Machiavellianism; narcissism.

INTRODUCTION

The Concept of Machiavelism

The concept of Machiavelism refers to the strategies used by the parties to achieve their goals in interpersonal relations. When it comes to Machiavellian understanding, the most basic strategy that comes to mind is the understanding that “every way to the goal is permissible” (Machiavelli, 2015, p. 10). Individuals with high Machiavellian personality traits such as moral deprivation, distrust of others, desire for control and status are generally characterized by extraverted but superficial and hypocritical behaviors in interpersonal relationships (Paulhus & Williams, 2002).

The main characteristics of Machiavelism can be listed as having a manipulative, emotionless, and strategic orientation (Jones & Paulhus, 2014). Studies suggest that Machiavellian individuals hide their true nature in the environment for a long time, and they move to a different environment when their abusive, opportunistic, and deceptive characteristics emerge (Wilson et al., 1996). It is also mentioned that individuals with high Machiavellian behavioral characteristics tend to help others less than individuals with low such behavioral characteristics (Dahling et al., 2009).

Dimensions of Machiavelism

Machiavelism consists of 4 sub-dimensions: moral deprivation, distrust of others, desire to control, and desire for status.

Moral deprivation

The most obvious criticism leveled against Machiavelli's thoughts is the lack of moral honesty within the political thought system he established (Yaşın, 2018). Machiavelli argues in his works that the state is only a political construct, not a moral or legal construct. In this context, he states that moral and legal rules should be used only if necessary for political purposes (Arslan, 1992). According to Machiavelli, morality has two dimensions: political morality and private morality. A fact or action that is considered right and beneficial in one dimension may be seen as wrong and harmful in the other.

While will and reasoning take place to a large extent in moral behavior, moral character is the transformation of moral behavior into an acquired tendency as a result of repetition. Reasoning, choice, and will are active in the process of acquiring moral values, while the state and attitude settled in emotions become active in the next process (Yazıcı & Yazıcı, 2011). Morality today

tends to lose its inherent goodwill (Köse, 2012). Moral deprivation can show itself in all social classes and is mostly seen in the political, business, and commercial environment (Akdoğan, 2009).

Distrust of others

The question of whether the human being, who is at the focal point of politics and state administration, is inherently good has been a frequently discussed issue since the past. Machiavelli, who most of the time defines people with adjectives such as ungrateful, selfish, jealous, devoid of common sense, and self-seeking in his works, deals with what human nature is and how it behaves, not how human nature should be in order to reach the ideal (Yaşın, 2018). According to Machiavelli, people are selfish by nature and do not keep their promises to others. Therefore, rulers do not need to keep their promises to the people.

Insecurity causes people to be prejudiced and suspicious of those around them, to become increasingly withdrawn, and then to have negative feelings toward the general public (Özler et al., 2010). There is an inverse relationship between distrust of others and moral attitudes. When exposed to or thought to be threatened with regard to existence, the individual may show a tendency to moralize behaviors that he does not see as morally appropriate under normal conditions in order to eliminate the threat (Ekmekci, 2011).

Desire to control

Control, which is defined as the ability of man to direct and influence himself and his environment, is observed in Machiavellian people (Sungur, 2017). These people have a power motive to influence or manage others and to control the environment, and individuals with this motive have a high tendency to engage in political behavior (Doğan, 1997).

This dimension includes people's beliefs and expectations that they can direct the processes with their own thoughts, discourse, and behaviors (Hisli et al., 2009). Control is the ability of a person to influence and direct himself and his environment. In the Machiavellian personality type, the need for control in the hierarchy always manifests itself.

Desire for status

Status can be expressed as the sum of behavioral patterns that can be perceived in the social hierarchy and that differ in terms of rights, authority, and responsibilities, pushing the individual to behave in a certain way (Barut, 1996). Regardless of the purpose of the individual, if the behavior he exhibits serves his own interests, power comes into play. The individual in question either uses power as a tool that serves the purpose or his goal is to gain power (Doğan, 1997).

The Concept of Narcissism

"Narcissism" originates from the Greek mythology of Narcissus, who saw his reflection in the water and fell in love with this reflection, and spent and ultimately ended his life following his love (himself). Narcissus clings to the desire to reach this impossible love and falls into the water and drowns and dies. Dictionary meaning of narcissism explains the concept as sexual desire and pleasure directed toward one's own body (Özsaydın, 1984).

According to Freud, narcissism arises when the libido is directed towards one's own self. Freud defined 2 aspects of narcissism: primary and secondary narcissism. Primary narcissism is a normal developmental stage in which the child sees himself/herself as an object of love because he/she cannot separate himself/herself from the outside world in the early years of development. Secondary narcissism, on the other hand, includes pathological features that express libido's reorientation to the self after the lack of the object of love sought in the external world in the later developmental stages (Freud, 1957).

Healthy and pathological narcissism

There are disagreements both within and between theories in the definition of pathological narcissism. Kernberg (1985) defines pathological narcissism with expressions such as grandiosity, lack of empathy, feeling of emotional emptiness, and egocentrism. Unlike this definition, Kohut (1977) defined narcissism as a phenomenon dominated by frailty, depression, feeling of emptiness, lack of empathy, and resilience.

Grandiose and vulnerable narcissism

Pathological or maladaptive narcissism is divided into grandiose and vulnerable narcissism (Ackerman et al., 2011; Miller et al., 2013; Wink, 1991). Although vulnerable narcissists have grandiose fantasies of grandiosity, they are not perceived as ostensibly "narcissists" because they are reserved and insecure. Grandiose narcissists report higher levels of happiness and life satisfaction (not real happiness and life satisfaction) (Rose, 2001) and are more exhibitionistic than fragile narcissists (Wink, 1991). The common points of individuals in these two dimensions are that they tend to be hostile and aggressive towards others (Miller et al., 2013). Fragile narcissists, who are hypersensitive to the evaluations of others, preoccupied with the thoughts that they are oppressed and suffering, display an insecure and modest appearance in

social areas and have a high level of anxiety. They hide their grandiose demands in their interpersonal relationships, while at the same time, they also experience a certain degree of psychological effects and emotional inadequacies that they are usually aware of (Akhtar, 1989; Gabbard, 1989).

Organizational narcissism

The perception of narcissism, which is accepted and also classified as destructive or exaggerated narcissism, is addressed in five basic sub-dimensions from an organizational perspective (Brown, 2005; Duchon & Burns, 2009; Emmons, 1987):

Leadership: Although the discourse that the organization is a sector leader and an authority in its field is used primarily for motivation, after a while, this situation becomes a common opinion among employees, whether it is real or not.

Desire for recognition: Narcissism, which creates an extremely external-dependent ego state as a result of the pressures of approval and acceptance, is fed by the process of being recognized or known by others and receiving praise.

Boastfulness: Self-confidence is a positive variable in organizational as well as in individual terms, but the desire for power combined with an excessive ambition to constantly rise leads to the conclusion that every means is viable to retain power.

Self Admiration: Self-admiration in the dimension of arrogance is a strong emotion that fosters the belief that the veil is different and unique from the others.

Exhibit: This dimension, also known as exhibitionism, is related to the sensitivity of the organization in marketing and advertising itself, in accordance with the self-feeding nature of narcissism.

The relationship between narcissistic personality organization and machiavellian behaviors

Narcissistic and Machiavellian personality traits have features that can be defined as malicious in social life. These two personality traits have a lot in common. However, researchers have not reached a consensus on what these common points are. According to Jones and Paulhus (2011), these common features are that these people are indifferent to the suffering of others and do not hesitate to use them for their own benefit. According to Jakobwitz and Egan (2006), these common characteristics are low agreeableness and low conscientiousness. As another

common point, Lee and Ashton (2005) emphasize low levels of honesty and humility. Social exploitativeness is another common point underlined by Jonason et al. (2009).

On the other hand, although there is a great amount of overlap between narcissistic and Machiavellian characteristics, the two concepts are relatively independent from each other. Compared to the narcissistic individual, the Machiavellian is much more realistic about himself and others, and neither makes excessive claims nor an effort to make a good impression (Paulhus et al., 2001; cited in Aydođan & Serbest, 2016).

The fact that these two different concepts have many common points implies that there is a positive relationship between them. Confirming this inference, it is seen that there are many studies in the literature that have concluded that there is a positive and significant relationship between narcissism and Machiavellianism (DeLisi et al., 2021; Güllü & Yıldız, 2019; Louis-Carter et al., 2014; Nicholls et al., 2017; Ozsoy, 2019; Özsoy & Ardiç, 2017; Sabouri et al., 2016; Szabó & Jones, 2019; Uçkun et al., 2018; Vaughan et al., 2018).

Loneliness

Peplau and Perlman (1982) defined loneliness as an undesirable subjective psychological state that occurs as a result of the incompatibility between a person's desired relationship and their actual relationship. According to Perlman and Peplau (1984), lonely people lack satisfying social relationships or perceive themselves as deprived. The authors reviewed dozens of social scientists' definitions of loneliness and identified three commonalities in these definitions. First, loneliness stems from deficiencies in social relationships. Second, loneliness is a subjective experience. It is not the same as objectively observed social isolation. That is, people may not feel lonely when they are alone, or they may feel lonely in a crowd. Third, loneliness is a life-threatening experience that causes stress and unhappiness (Perlman & Peplau, 1984). Social scientists have distinguished between loneliness and solitude while defining loneliness. While the concept of loneliness defines a situation that people avoid as much as possible and has negative consequences on psychological and physical health; solitude is mostly used to describe situations that enable the person to mature psychologically via activities such as reviewing his/her behaviors, thinking, writing, and talking to God (Kasari & Sterling, 2013; McGraw, 2010).

General characteristics of lonely individuals

Studies by Jones (1982) and Spitzberg and Canary (1985) consistently revealed that lonely people have problems with interpersonal communication and relationships. Tsai and Reis (2009) determined that lonely people tend to project themselves more negatively than people who are not alone. According to Sloan and Solano (1984), lonely people tend to talk less. Engelberg and Sjoberg (2004) found that lonely people with weaker social skills tend to use the Internet more frequently. According to Peplau and Perlman (1998), lonely people have negative emotions such as discrepancy, isolation, exclusion, lovelessness, and worthlessness. At the same time, they are introverted, avoid social intimacy, are angry, depressed, often overworked, have low self-esteem, and feel distressed. These characteristics also explain why others avoid lonely people.

Present Study

The present study seeks to identify the relationship between Machiavellianism, narcissism (both grandiose and vulnerable forms), and loneliness among white-collar workers in Turkey.

The hypotheses to be tested within the scope of the research are presented below.

H1: It is expected that there will be a significant positive relationship between Machiavellianism and grandiose narcissism.

H2: It is expected that there will be a significant positive relationship between Machiavellianism and vulnerable narcissism.

H3: It is expected that there will be a significant positive relationship between Machiavellianism and loneliness.

H4: It is expected that there will be a positive and significant relationship between grandiose narcissism and loneliness.

H5: It is expected that there will be a positive and significant relationship between vulnerable narcissism and loneliness.

In addition, a potential relationship between sociodemographic variables (including age, gender, and level of education) and narcissism, Machiavellianism, and loneliness will also be explored in an attempt to shed more light on previous findings.

Methods

Participant

In this study, participants were white collar workers. Among 200 participants, 110 identified their gender as female, 89 as male, and 1 as other. Their ages ranged between 25 and

45 years ($M = 32.67$, $SD = 6.23$). Ninety-one participants were married or living with a romantic partner, 109 participants were single. Eight were high school graduate, 151 had a bachelor's degree, and 41 had a master's or doctoral degree.

Materials

Sociodemographic information form

This form included questions regarding participants' age, gender, marital status, level of education, type of institution where they currently work, the length of time the participant worked in that institution, his/her position in the company. There were also questions regarding whether the participant is currently on medication, and whether he/she is currently diagnosed with a neurological/psychiatric disorder.

Narcissistic personality inventory (NPI-16)

NPI-16 (Ames et al., 2006) was used to measure the level of grandiose narcissism of participants. The scale includes 16 items. For each item, the participant is expected to choose one of two options. Atay (2009) adapted the scale to Turkish. The statements of NPI-16 include six factors: authority, superiority, entitlement, self-absorption, exhibitionism, and exploitation (Atay, 2009). Cronbach's alpha value of the Turkish version was obtained as 0.652.

Hypersensitive narcissism scale (HSNS)

HSNS (Hendin & Cheek, 1997) was used to measure the level of vulnerable narcissism of participants. Şengül et al. (2015) carried out adaptation studies for the scale in Turkish. The HNS includes 8 items. The participants were expected to answer each item with one of these five options: 1 (I strongly disagree), 2 (It does not reflect), 3 (I am indecisive), 4 (It reflects), and 5 (I strongly agree). Cronbach's alpha value of the Turkish version was found as 0.66 (Şengül et al., 2015).

Machiavellianism scale

Machiavellianism Scale (Dahling et al., 2009) consists of four factors: “amorality”, “distrust for others”, “desire for control”, and “desire for status”. Ülbeği (2016) adapted the scale to Turkish. Turkish version of the scale involves five items for the measure of the level of amorality, five items for the measure of the level of distrust for others, three items for the measure of the level of the desire for control, and three items for the measure of the level of the desire for status. The scale has 16 items with a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Cronbach’s alpha value is 0.88 (Ülbeği, 2016).

UCLA loneliness scale (UCLS)

This scale (Russell et al., 1978) was used to measure the level of loneliness of the participants. Demir (1989) carried out the Turkish adaptation study of the scale. The scale includes 20 items to be rated on a 4-point Likert scale, ranging from 1 (I never feel it) to 4 (I often feel it). Cronbach’s alpha value of the scale was found as 0.96 (Demir, 1989).

Procedure

The data was collected in an online survey format (Google Forms). Snowball sampling was used to collect the data. Participants voluntarily participated in the study. For those who did not accept to participate, the survey automatically turned off. There were two such individuals. All participants were first asked to read the informed consent form (See Appendix A). They then filled out the sociodemographic form. Then they were asked to complete the scales in the following order: Hypersensitive Narcissism Scale, Machiavellianism Scale, Narcissistic Personality Inventory, and UCLA Loneliness Scale (See Appendix B for the scales and the sociodemographic form). It took approximately 15 minutes to answer all questions. Debriefing was provided at the end of the survey. This study was approved by Yeditepe University Social Sciences and Humanities Ethics Board (See Appendix C).

Data Analysis

IBM SPSS Version 25 was used to analyze the results. Since the distribution of several scores either violated normality or included outliers, intercorrelations were tested via Spearman’s Rank Order Correlation. By the same token, Mann Whitney U Test was used to compare scale scores of groups differentiated on the basis of gender, education, and marital status. Bonferroni correction was applied for multiple comparisons. Finally, a stepwise regression analysis was carried out to test the extent to which variables correlated with loneliness score predicted that variable.

RESULTS

Sociodemographic Characteristics of the Sample

In the study, there were 200 participants (110 identified themselves as female, 89 as male, and 1 as other), and the mean age of the sample was 32.67 years ($SD = 6.20$). One hundred nine participants were single, and 91 were either married or living with a romantic partner. Sociodemographic characteristics of the sample are demonstrated in Table 1.

Table 2 demonstrates means and standard deviations for all total scale and subscale scores that were used in the study. A series of Mann Whitney U Tests were used to investigate the relationship between sociodemographic variables (gender, marital status, and education) and total scale scores of NPI, Loneliness Scale, Machiavellianism Scale, and HNS as well as subscales of Machiavellianism Scale (See Table 3). Based on Bonferroni-corrected p level of .002, none of the comparisons yielded significant results.

The Relationship between Narcissistic, Machiavellianism, and Loneliness

Spearman Correlation Analysis was used to test the relationship between narcissism, Machiavellianism, and loneliness scores. The results are demonstrated in Table 4. Total NPI score was significantly and positively correlated with MS total score as well as Moral Deprivation, Desire for Status, and Desire for Control subscale scores ($p = .001$). HNS total score, on the other hand, was positively correlated with MS-Total ($p < .001$), MS-Moral Deprivation ($p < .001$), MS-Desire for Control ($p < .001$), and MS- Distrust for Others ($p = .001$) scores. There was a positive correlation between UCLS and HNS total score ($p < .001$). Finally, significant positive correlations were obtained for UCLS and MS total, and UCLS and MS-Distrust for Others scores ($p < .001$). However, there was not a correlation between HNS total score and NPI score, also between NPI score and UCLS ($p > .003$).

Prediction of Loneliness

A stepwise multiple regression analysis was used to identify variables predicting loneliness score. The variables that significantly correlated with Loneliness score were included as

potential predictors. Therefore, in addition to gender and level of education, MS total score, MS-Moral MS-Distrust for Others subscale score, and HNS total score were included in the analyses.

The results are demonstrated in Table 5. Here, higher scores on both MS-Distrust for Others subscale and HNS total scores, together with male gender, was associated with higher loneliness scores. Three variables collectively accounted for 20% of the variance.

DISCUSSION

This study aimed to investigate the relationship between Machiavelism, grandiose and vulnerable forms of narcissism, and loneliness among white collar workers. In addition, it was also aimed to examine whether the level of Machiavellianism, narcissism and loneliness differed significantly according to the demographic characteristics of the participants.

The results of the analyses indicated that none of the sociodemographic variables were significantly related with scale scores. In other words, it was determined that the levels of Machiavellianism, narcissism and loneliness did not differ significantly according to gender, marital status and educational status of the participants. It should, however, be noted that the level of loneliness was higher among males and those with a Bachelor's degree based on the standard significance level of .05, but these findings could not retain their significance after adjusting for multiple comparisons. The reasons for men feeling more lonely in Turkey include cultural factors, gender roles, communication styles, and lack of social support. The communication styles commonly observed among men can be more competitive and task-oriented, which may hinder the establishment of emotional or intimate connections and make men feel lonely (Çelikkaleli, 2022).

It is seen that there are other studies in the literature that are compatible with these findings (Aydoğan & Serbest, 2016; Grijalva et al., 2015; Güney & Mandacı, 2009; Hacıoğlu, 2018; Liu, 2008; Özsoy, 2017; Saltoğlu, 2018; Üzümcü, 2016). However, there are also studies with results that contradict the findings of the current study. While there are studies that have determined that men have higher levels of Machiavellianism, narcissism, and loneliness (Foster et al., 2003; Grijalva et al., 2015; Sherry et al., 2006; Şanal & Dağtekin, 2018), there are also studies that have determined that women have higher levels of Machiavellianism, narcissism, and loneliness (Chretien et al, 2018; Rohmann et al., 2012; Wright et al., 2010). Similar controversial findings have been obtained with regard to level of education, as well (Chen,

2010; Kapla, 2005). Based on the literature and findings of the current study, it is clear that further investigation of the possible contribution of sociodemographic variables is warranted. Due to a small sample size and insufficient diversity among the participants in the study, the sociodemographic variables may not have yielded statistically significant results. This study can be replicated by ensuring gender equality and increasing the sample size of the participants. In addition, incorporating the participants' job positions and work durations into the research can lead to more meaningful results.

The main purpose of the study was to investigate the relationship of Machiavellism and grandiose and vulnerable forms of narcissism to loneliness among white-collar workers. The findings indicated that several aspects of Machiavellianism was correlated with both grandiose and vulnerable narcissism scores. In particular, it was determined that the total score of the Machiavellianism scale and the dimensions of moral deprivation and desire for control were associated with both grandiose and vulnerable narcissism. In addition, desire for status dimension of Machiavellianism was associated with grandiose narcissism, while the distrust of others dimension of Machiavellianism was associated with vulnerable narcissism. These findings seem to be compatible with similar studies in the literature. In the majority of the studies in the literature, it is seen that the relations between Machiavellianism and narcissism are examined over the total scores of the scales and positive relations are determined between the said variables (Çelikkaleli et al., 2022; McHoskey, 1999; Sedikides et al., 2004; Shengbo et al., 2022). In the limited number of studies examining the relations between Machiavellianism and narcissism on the basis of dimensions, it is seen that the mentioned variables are also positively related on the basis of dimensions (Uçkun et al., 2018; Toprak, 2021).

Loneliness was also significantly correlated with Machiavellianism Total Score and Distrust of Others subscale score as well as HNS total scores. In the literature, it is seen that there are studies that reach similar findings regarding the relationship of loneliness with Machiavellianism total score (McHoskey, 1999; Sedikides et al., 2004; Zhang et al., 2015; Çelikkaleli et al., 2022) and vulnerable narcissism (Prendergast et al., 2019; Kealy et al., 2022). On the other hand, no study has been found that examines the relationship between Machiavellianism and narcissism on the basis of its specific dimensions. It is considered that the findings reached in this study on the basis of dimensions contribute to the literature.

The results of the stepwise regression analysis revealed distrust for others, male gender, and hypersensitive narcissism as significant predictors of loneliness. It is stated that Machiavellian

individuals cannot recognize other people's feelings, are not affected by emotional states, and can maintain their distanced attitude under all circumstances (McIlwain, 2003). Machiavellian individuals who favor superficiality in their relationships are only in relationships to meet their own expectations (Kessler et al., 2010). People who are in relationships with Machiavellian individuals feel used and bad. Machiavellians, who emotionally avoid sharing and intimacy, cannot maintain long-term relationships that require commitment and may be unfaithful in their relationships (Ináncsi et al., 2015). Distrust for others dimension of Machiavelism causes people to be prejudiced and suspicious of those around them, to become increasingly withdrawn, and then to have negative feelings towards the general public (Özler et al., 2010). On the other hand, narcissistic individuals try to dominate and defeat others because they see life as a competition where there can only be one winner, rather than establishing meaningful relationships with others (Raskin et al., 1991). Narcissistic individuals also lack empathy or the ability to understand how others are feeling. Therefore, they treat others as objects (Dimaggio et al., 2002). Those with vulnerable narcissism traits may experience problems in their social relationships due to their lack of empathy and being overly demanding in their relationships (Bosson et al., 2008). Being extremely sensitive to criticism causes individuals with vulnerable narcissism to experience shyness. Vulnerable narcissists have a high level of stress in their social relationships and avoid social relationships (Dickinson & Pincus, 2003). They are more introverted than grandiose narcissists. Vulnerable narcissism is associated with social avoidance, problems in relationships, lack of self-confidence, social anxiety, embarrassment, and ultimately loneliness (Besser & Priel, 2010). As a natural consequence of these situations, Machiavellian and narcissistic individuals reduce their ties with their colleagues, organization, and environment and gradually become lonely (Sur, 2010). In this context, it can be stated that the findings of the study are compatible with the above-mentioned conceptual relationships. In addition, it is seen that there are studies with similar results in the literature (McHoskey, 1999; Sedikides et al., 2004). On the other hand, there are also studies with different results. In the study carried out by Zhang et al. (2015), it was determined that Machiavellianism was positively related to loneliness, while narcissism was negatively related to loneliness. In other words, it was determined in the study that while Machiavellianism increased loneliness, narcissism decreased loneliness (Zhang et al., 2015). In the study conducted by Shengbo et al. (2022), it was concluded that there was a positive relation between narcissism and loneliness, but there was no significant relation between Machiavellianism and loneliness. In the study conducted by Çelikkaleli et al. (2022), it was concluded that Machiavellianism was positively

related to loneliness, but there was no significant relation between narcissism and loneliness. In other words, in the study, it was determined that Machiavellianism increased loneliness, but narcissism was not related to loneliness (Çelikkaleli et al., 2022). It is considered that the reason for this difference between study findings may be due to the context of the studies or measurement bias which refers to the degree of accuracy of measures of the concepts they are intended to reflect. In addition, the empirical evidence presented by this study is considered to make a significant contribution to the limited and controversial literature.

As stated above, the results of the stepwise regression analysis also revealed male gender as significant predictor of loneliness.. In a meta-analysis study conducted by Mahon et al. (2006), 95 studies were examined and it was determined that there was no significant relationship between gender and loneliness in 84 of these studies. On the other hand, loneliness was higher in men in nine studies and in women in two studies (Mahon et al., 2006). Therefore, this finding needs careful consideration and replication.

Preprint

CONCLUSION

In summary, the findings of the current study revealed that higher levels of Machiavellianism and narcissism are associated with increased loneliness. As loneliness is a specific risk factor in a number of different psychopathologies including depression, and anxiety disorders (Çelikkaleli et al., 2022). Machiavellianism and narcissism can also have negative consequences for organizations (Ozsoy, 2019). In this context, it is thought that it would be appropriate to evaluate the candidates in terms of these aspects during the recruitment and promotion processes. However, these features may not always cause harmful/destructive behaviors. In this context, it should not be overlooked to evaluate the level of these features and how much they affect the behavior of the person. However, the findings of the study might have important implications with regard to prevention. Organizations and managers can create a work environment to support workers' emotional needs and social connections. Instead of directing workers with Machiavellian and grandiose narcissistic tendencies to significant tasks, leaders should adopt a leadership style that promotes ethical behavior and collaboration. Supportive programs and resources should be provided to cope with the feelings of loneliness (Aydoğan & Serbest, 2016).

The data used in this quantitative study is based on scales and questionnaires. In a similar study to be carried out qualitatively, it is considered that more explanatory results can be reached with the information obtained from the interviews. In addition, including variables such as emotional intelligence, attachment styles, parental attitudes, early maladaptive schemas, personality, and alexithymia to the research model in future studies might provide a more wholistic picture, since previous studies also indicate these variables might be related to concepts investigated in this study (Buecker et al., 2020; Demircioğlu & Göncü Köse, 2021; Kim, 2020; Lan, 2021; Qualter et al., 2009; Zhang et al., 2015).

REFERENCES AND NOTES

- Ackerman, R. A., Witt, E. A., Donnellan, M. B., Trzesniewski, K. H., Robins, R. W., & Kashy, D. A. (2011). What does the narcissistic personality inventory really measure? *Assessment, 18*(1), 63–87.
- Akdoğan, A. (2009). Sosyal gelişmenin iki dinamiği: bilim ve ahlak [Two dynamic of social improvement: science and ethics]. *Journal of Theological Studies Academic Research, 9*(3), 11-44.
- Akhtar, S. (1989). Narcissistic personality disorder: Descriptive features and differential diagnosis. *Psychiatric Clinics of North America, 12*(3), 505-529.
- Akhtar, S. (2003). *New clinical realms: Pushing the envelope of theory and technique*. Lanham, MD: Jason Aronson.
- Akhtar, S., & Thomson, J. A. (1982). Overview: Narcissistic personality disorder. *The American Journal of Psychiatry, 139*(1), 12-20.
- Aksoy, E. Ş. (2016). *İşyerlerinde makyavelizm ve örgütsel sinizm arasındaki ilişki: Kütahya ili banka personeli üzerine bir uygulama* [The relationship between machiavellianism and organizational cynicism in workplaces: An application on bank personnel in Kütahya] (Unpublished PhD Thesis). Dumlupınar University Institute of Social Sciences, Kütahya.
- Ames, D. R., Rose, P., & Anderson, C. P. (2006). The NPI-16 as a short measure of narcissism. *Journal of research in personality, 40*(4), 440-450.
- Arslan, M. (1992) Nicolo machiavelli ve machiavelizm [Nicolo machiavelli and machiavelism]. *İstanbul University Journal of Sociology, 3*(3), 167-186.
- Atakan, Ş. (2002). *İşletme etiğinde makyavelizm: Görsel basın haber programları iş görenlerinin makyavelizm düzeylerini belirlemeye yönelik bir çalışma* [Machiavellianism in business ethics: A study to determine the level of machiavellianism of the employees of visual media news programs] (Unpublished Master Thesis). Hacettepe University Institute of Social Sciences, Ankara.
- Atay, S. (2009). Narsist kişilik envanterinin Türkçeye standardizasyonu [Standardization of narcissistic personality inventory into Turkish]. *Gazi University Journal of Faculty of Economics and Administrative Sciences, 11*(1), 181-196.

- Aydoğan, E., & Serbest, S. (2016). İş yerinde karanlık üçlü: bir kamu kuruluşunun iç denetim biriminde araştırma [The dark triad at work: study of internal audit department of a public institution]. *Journal of Turkish Court of Accounts*, 101, 97-121.
- Barut, M. (1996) *Makyavelizm'in toplumsal temelleri* [Social basis of Machiavellianism] (Unpublished Master Thesis). Mersin University Institute of Social Sciences, Mersin.
- Besser, A., & Priel, B. (2010) Grandiose narcissism versus vulnerable narcissism in threatening situations. *Journal of Social and Clinical Psychology*, 29(8), 874-902.
- Bosson, J. K., Lakey, C. E., Campbell, W. K., Zeigler-Hill, V., Jordan, C. H., & Kernis, M. H. (2008). Untangling the links between narcissism and self-esteem: A theoretical and empirical review. *Social and Personality Psychology Compass*, 2(3), 1415-1439.
- Brown, B. (2005). Narcissistic leaders: effectiveness and the role of followers. *Otago Management Graduate Review*, 3, 69-87
- Buecker, S., Maes, M., Denissen, J. J., & Luhmann, M. (2020). Loneliness and the big five personality traits: a meta-analysis. *European Journal of Personality*, 34(1), 8-28.
- Campbell, W. K., Reeder, G. D., Sedikides, C., & Elliot, A. J. (2000). Narcissism and comparative self-enhancement strategies. *Journal of Research in Personality*, 34(3), 329-347.
- Çelikkaleli, Ö., Karababa, A., & Adıgüzel, A. (2022). Direct and indirect relationships between dark personality traits and loneliness among emerging adults: the mediating role of empathic tendency. *Psycho-Educational Research Reviews*, 11(1), 341-354.
- Chen, S. Y. (2010). Relations of Machiavellianism with emotional blackmail orientation of salespeople. *Procedia-Social and Behavioral Sciences*, 5, 294-298.
- Chretien, S. L., Ensink, K., Descoteaux, J., & Normandin, L. (2018) Measuring grandiose and vulnerable narcissism in adolescents. *Mediterranean Journal of Clinical Psychology*, 6(2), 1-23.
- Dahling, J. J., Whitaker, B. G., & Levy, P. E. (2009). The development and validation of a new Machiavellianism scale. *Journal of Management*, 35(2), 219-257.
- DeLisi, M., Pechorro, P., Maroco, J., & Simões, M. (2021). Overlapping measures or constructs? An empirical study of the overlap between self-control, psychopathy, Machiavellianism and narcissism. *Forensic science international: Synergy*, 3, 100141.
- Demir, A. (1989). The validity and reliability of UCLA loneliness scale. *Turkish Journal of Psychology*, 7(23), 14-18.

- Demircioğlu, Z. I., & Göncü Köse, A. (2021). Effects of attachment styles, dark triad, rejection sensitivity, and relationship satisfaction on social media addiction: A mediated model. *Current Psychology*, 40(1), 414-428.
- Dickinson K. A., & Pincus A. L. (2003) Interpersonal analysis of grandiose and vulnerable narcissism. *Journal of Personality Disorders*, 17(3), 188-207.
- Dimaggio, G., Semerari, A., Falcone, M., Nicolo, G., Carcione, A., & Procacci, M. (2002). Metacognition, states of mind, cognitive biases, and interpersonal cycles: Proposal for an integrated narcissism model. *Journal of Psychotherapy Integration*, 12(4), 421-451.
- Doğan, E. (1997) *Örgütsel politika algısının beş örgütsel davranış değişkeni ve Makyavelizm ile olan ilişkisi* [The relationship between organizational policy perception and five organizational behavior variables and Machiavellianism] (Unpublished Master Thesis). Marmara University Institute of Social Sciences, İstanbul.
- Duchon, D., & Burns, D. (2009). Organizational narcissism and virtuous behavior. *Journal of Business Ethics*, 85(3), 301-308.
- Ekmekci, F. (2011). *Büyüyen Türkiye* [Growing Turkey]. İstanbul: Deniz Publications.
- Emmons, R. A. (1987). Narcissism: theory and measurement. *Journal of Personality and Social Psychology*, 52(1), 11-17.
- Engelberg, E., & Sjoberg, L. (2004). Internet use, social skills and adjustment. *Cyber Psychology & Behavior*, 7, 41-47.
- Foster J. D., Campbell W. K., & Twenge J. M. (2003) Individual differences in narcissism: Inflated self-views across the lifespan and around the world. *Journal of Research in Personality*, 37(6), 469-486.
- Freud, S. (1957). On narcissism: An introduction. In J. Strachey (Ed. and Trans.), *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 14, pp. 73-102). London: England: Hogarth Press.
- Gabbard, G. O. (1989). Two subtypes of narcissistic personality disorder. *Bulletin of the Menninger Clinic*, 53(6), 527-532.
- Grijalva, E., Newman, D. A., Tay, L., Donnellan, M. B., Harms, P. D., Robins, R. W., & Yan, T. (2015). Gender differences in narcissism: a meta-analytic review. *Psychological Bulletin*, 141(2), 261-274.
- Güllü, S., & Yıldız, K. (2019). Spor örgütlerinde karanlık kişilik, örgütsel sinizm ve iş tatmini ilişkisinin incelenmesi [Investigation of the relationship among dark

- personality, organizational cynicism, and job satisfaction in sports organizations]. *SPORMETRE Journal of Physical Education and Sport Sciences*, 17(4), 220-232.
- Güney, S., & Mandacı, G. (2009). Makyavelizm ve etik algısı ilişkileri: bankacılık sektöründe bir araştırma [Machiavellianism and ethical perception relations: a survey in the banking sector]. *Hacettepe University Journal of Economics and Administrative Sciences*, 27(2), 83-104.
- Güven, İ. F. (2019). Makyavelizm ve dindarlık: demografik değişkenler üzerine ampirik bir araştırma [Machiavellism and religiosity: an empiric research on demographic variables]. *Bilimname*, 37(1), 1155-1186.
- Hacıoğlu, M. B. (2018) *Kişilerarası bağımlılık eğilimi ile kırılgan ve büyüklenmeci narsistik kişilik özellikleri: Şema terapi modelinde bir inceleme* [Interpersonal addiction tendency and vulnerable and grandiose narcissistic personality traits: An investigation in a schema therapy model] (Unpublished Master Thesis). Istanbul Şehir University Institute of Social Sciences, İstanbul.
- Hendin, H. M., & Cheek, J. M. (1997). Assessing hypersensitive narcissism: A reexamination of Murray's Narcism Scale. *Journal of research in personality*, 31(4), 588-599.
- Hisli Ş. N., Basım, H. N., & Çetin, F. (2009). Kişilerarası çalışma çözme yaklaşımlarında kendilik algısı ve kontrol odağı [Locus of control and self-concept in interpersonal conflict resolution approaches]. *Turkish Journal of Psychiatry*, 20(2), 153-163.
- Ináncsi, T., Láng, A., & Bereczkei, T. (2015). Machiavellianism and adult attachment in general interpersonal relationships and close relationships. *Europe's Journal of Psychology*, 11(1), 139-154.
- Jakobwitz, S., & Egan, V. (2006). The dark triad and normal personality traits. *Personality and Individual Differences*, 40(2), 331-339.
- Jonason, P. K., Li, N. P., Webster, G. D., & Schmitt, D. P. (2009). The dark triad: Facilitating a short-term mating strategy in men. *European journal of personality*, 23(1), 5-18.
- Jones, D. N., & Paulhus, D. L. (2011). Differentiating the dark triad within the interpersonal circumplex. In L. M. Horowitz & S. Strack (Eds.), *Handbook of interpersonal psychology: Theory, research, assessment, and therapeutic interventions* (pp. 249-269). New York, NY: Wiley & Sons.
- Jones, D. N., & Paulhus, D. L. (2014). Introducing the short dark triad (SD3) a brief measure of dark personality traits. *Assessment*, 21, 28-41

- Jones, W. (1982). Loneliness and social behavior. In L. A. Peplau & D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research and therapy* (pp. 283–52). New York, NY: Wiley-Interscience.
- Kapla, D. P. (2005). *Personalizing leadership: Institutional and individual factors affecting the leadership styles and policy choices of Wisconsin police chiefs*, (PhD Thesis). West Virginia University, Morgantown.
- Kasari, C., & Sterling, L. (2013). Loneliness and social isolation in children with autism spectrum disorder. In R. J. Coplan & J. C. Bowker (Ed.), *Handbook of solitude: psychological perspectives on social isolation, social withdrawal, and being alone* (pp. 409-426). Somerset: Wiley-Blackwell.
- Kealy, D., Woolgar, S., & Hewitt, J. M. (2022). Investigating pathological narcissism and loneliness, and the link with life satisfaction. *Scandinavian journal of psychology*, 63(1), 32-38.
- Kernberg, O. (1985). *Borderline conditions and pathological narcissism*. Northvale London: Jason Aronson Inc.
- Kessler, S. R., Bandelli, A. C., Spector, P. E., Borman, W. C., Nelson, C. E., & Penney, L. M. (2010). Re-examining Machiavelli: A three-dimensional model of Machiavellianism in the workplace. *Journal of Applied Social Psychology*, 40(8), 1868-1896.
- Kim, T. (2020). *The dark triad and early maladaptive schemas in a sample of undergraduate women* (Doctoral Dissertation). The Chicago School of Professional Psychology.
- Klein, M. (1975). On the sense of loneliness. In M. Klein (Ed.), *Envy and gratitude and other Works, 1946–1963. The writings of Melanie Klein* (Vol. 3, pp. 300–313). New York: Free Press.
- Kohut, H. (1977). *The restoration of the self*. New York: International Universities Press
- Köse, S. (2012). *İslam iş ve ticaret ahlaki* [Islamic business and trade ethics]. İstanbul: İgiad Publications.
- Lan, X. (2021). Disengaged and highly harsh? Perceived parenting profiles, narcissism, and loneliness among adolescents from divorced families. *Personality and Individual Differences*, 171, 110466.
- Lee, K., & Ashton, M. C. (2005). Psychopathy, Machiavellianism, and narcissism in the Five-Factor Model and the HEXACO model of personality structure. *Personality and Individual Differences*, 38(7), 1571-1582.

- Liu, C. C. (2008). The relationship between Machiavellianism and knowledge sharing willingness. *Journal of Business and Psychology*, 22(3), 233-240.
- Louis-Carter, G., Campbell, A. C., & Muncer, S. (2014). The dark triad personality: Attractiveness to women. *Personality and Individual Differences*, 56, 57-61.
- Machiavelli, N. (2015). *Prince*. İzmir: İlya Publishing.
- Mahon, N. E., Yarcheski, A., Yarcheski, T. J., Cannella, B. L., & Hanks, M. M. (2006). A meta-analytic study of predictors for loneliness during adolescence. *Nursing research*, 55(5), 308-315.
- McGraw, J. G. (2010). *Intimacy and isolation*. New York: Value Inquiry Book Series.
- McHoskey, J. W. (1999). Machiavellianism, intrinsic versus extrinsic goals, and social interest: A self-determination theory analysis. *Motivation and Emotion*, 23(4), 267-283.
- McHoskey, J. W., Hicks, B., Betris, T., Szyarto, C., Worzel, W., Kelly, K., ... & Suggs, T. (1999). Machiavellianism, adjustment, and ethics. *Psychological Reports*, 85(1), 138-142.
- McIlwain, D. (2003). Bypassing empathy: A Machiavellian theory of mind and sneaky power. In B. Repacholi & V. Slaughter (Eds.), *Macquarie monographs in cognitive science. Individual differences in theory of mind: Implications for typical and atypical development* (p. 39–66). Psychology Press.
- Miller, J. D., & Campbell, W. K. (2008). Comparing clinical and social-personality conceptualizations of narcissism. *Journal of Personality*, 76(3), 449–476.
- Miller, J. D., Gentile, B., Wilson, L., & Campbell, W. K. (2013). Grandiose and vulnerable narcissism and the DSM-5 pathological personality trait model. *Journal of Personality Assessment*, 95(3), 284–290.
- Nicholls, A. R., Madigan, D. J., Backhouse, S. H., & Levy, A. R. (2017). Personality traits and performance enhancing drugs: The dark triad and doping attitudes among competitive athletes. *Personality and Individual Differences*, 112, 113-116.
- Ozan, E., Kırkpınar, İ., Aydın, N., Fidan, T., & Oral, M. (2008). Narcissistic personality disorder. *RCHP-Review Cases Hypotheses Psychiatry*, 2, 25-37.
- Özler, D. E., Atalay, C. G., & Şahin, M. D. (2010). Örgütlerde sinizm güvensizlikle mi bulaşır? [Does the cynicism contaminate in organizations with distrustfulness?]. *Journal of Organization and Management Sciences*, 2(2), 47-57.
- Özsaydın, S. (1984). *Psychiatry*. İstanbul: Sanal Printing.

- Özsoy, E, & Ardiç, K. (2017). Karanlık üçlü'nün (narsisizm, makyavelizm ve psikopati) iş tatminine etkisinin incelenmesi [Examining the effects of the dark triad (narcissism, machiavellianism and psychopathy) on job satisfaction]. *Journal of Management and Economics*, 24(2), 391-406.
- Ozsoy, E. (2019). Effects of managers' dark personality traits on employees' burnout level. *Journal of Selçuk University Social Sciences Vocational School*, 22, 194-203.
- Özsoy, F. H. (2017). *Örgütlerde makyavelizm ve sinizmin çatışma yönetimine etkisi: bir teknoloji şirketinde uygulama* [The effect of machiavellianism and cynicism on conflict management in organizations: a study in a technology company] (Unpublished Master Thesis). Istanbul Kultur University Institute of Social Sciences, İstanbul.
- Paulhus. D. L., & Williams. K. M. (2002). The dark triad of personality: narcissism, machiavellianism and psychopathy. *Journal of Research in Personality*, 36, 556–563.
- Penney, L. (2002). *Workplace incivility and counterproductive workplace behavior (cwb): what is the relationship and does personality play a role* (PhD Thesis). Psychology College of Arts and Sciences University of South Florida.
- Peplau, L. A., & Perlman, D. (1982). Perspective on loneliness. In L. A. Peplau & D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research, and therapy* (pp.1-8). New York: Wiley Interscience.
- Peplau, L. A., & Perlman, D. (1998). Loneliness, H Friedman (eds) *Encyclopedia of mental health* (Vol. 2, pp. 571-581), San Diego, CA: Academic Press.
- Perlman, D., & Peplau, L. A. (1982). Theoretical approaches to loneliness. In L. A. Peplau & D. Perlman (Eds.), *Loneliness: A sourcebook of current theory, research and therapy* (pp. 123–131). John Wiley & Sons.
- Perlman, D., & Peplau, L. A. (1984) Loneliness research: survey of empirical findings. In L. A. Peplau & S.E. Goldston (Eds) *Preventing the harmful consequences of severe and persistent loneliness* (pp. 13-46). Washington, DC: US Government Printing Office.
- Pincus, A. L., & Lukowitsky, M. R. (2010). Pathological narcissism and narcissistic personality disorder. *Annual Review of Clinical Psychology*, 6, 421–446.
- Prendergast, C. N., Haahjem Eftedal, N., Fredriksen Ikonomeas, A. G., Brun, A., Huth, H., & Bredesen, M. (2019). The Norwegian version of the five factor narcissism inventory for vulnerable narcissism and the grandiose narcissism subscale of indifference:

- Psychometric properties of the long-and short-form versions. *Scandinavian Journal of Psychology*, 60(5), 492-500.
- Qualter, P., Quinton, S. J., Wagner, H., & Brown, S. (2009). Loneliness, interpersonal distrust, and alexithymia in university students 1. *Journal of Applied Social Psychology*, 39(6), 1461-1479.
- Raskin, R., Novacek, J., & Hogan, R. (1991). Narcissistic self-esteem management. *Journal of Personality and Social Psychology*, 60(6), 911-918.
- Rohmann, E., Neumann, E., Herner, M. J., & Bierhoff, H. N. (2012) Grandiose and vulnerable narcissism: Self-construal, attachment, and love in romantic relationships. *European Psychologist*, 17(4), 279-290.
- Rose, P. (2001). The happy and unhappy faces of narcissism. *Personality and Individual Differences*, 33(3), 379–391.
- Russell, D., Peplau, L. A., & Ferguson, M. L. (1978). Developing a measure of loneliness. *Journal of Personality Assessment*, 42(3), 290-294.
- Sabouri, S., Gerber, M., Lemola, S., Becker, S. P., Shamsi, M., Shakouri, Z., Bahmani, D. S., Kalak, N., Holsboer-Trachsler, E., & Brand, S. (2016). Examining dark triad traits in relation to sleep disturbances, anxiety sensitivity and intolerance of uncertainty in young adults. *Comprehensive Psychiatry*, 68, 103-110
- Saltoğlu, S. (2018). *The role of coping style as a mediator between the dark triad and psychological well-being* (Unpublished master thesis). Bahçeşehir University, Istanbul.
- Şanal, M., & Dağtekin, H. (2018). Y kuşağında makyavelizm ve girişimcilik üzerine bir inceleme [A review of machiavelism and entrepreneurship in Y generation]. *Social Sciences Studies Journal*, 317-328.
- Sedikides, C., Campbell, W. K., Reeder, G., Elliot, A. J., & Gregg, A. P.(2002). Do others bring out the worst in narcissists? The “others exist for me” illusion. In Y. Kashima, M. Foddy, & M. Platow (Eds.). *Self and identity: Personal, social, and symbolic* (pp. 103–123).
- Sedikides, C., Rudich, E. A., Gregg, A. P., Kumashiro, M., & Rusbult, C. (2004). Are normal narcissists psychologically healthy?: Self-esteem matters. *Journal of Personality and Social Psychology*, 87(3), 400-416.

- Shengbo, L., Fiaz, M., Mughal, Y. H., Wisetsri, W., Ullah, I., Ren, D., ... & Kesari, K. K. (2022). Impact of Dark Triad on Anxiety Disorder: Parallel Mediation Analysis During Pandemic. *Frontiers in psychology*, *13*, 1-12.
- Sherry, S. B., Hewitt, P. L., Besser, A., Flett, G. L., & Klein, C. (2006). Machiavellianism, trait perfectionism, and perfectionistic self-presentation. *Personality and individual differences*, *40*(4), 829-839.
- Sloan, W. W., & Solano, C. H. (1984). The conversational styles of lonely males with strangers and roommates. *Personality & Social Psychology Bulletin*, *10*, 293–301.
- Spitzberg, B. H., & Canary, D. J. (1985). Loneliness and relationally competent communication. *Journal of Social and Personal Relationships*, *2*(4), 387-402.
- Sungur, S. A. (2017). Siyasal bilgiler öğrencilerinin makyavelist eğilimlerini belirlemeye yönelik bir araştırma [A study aimed at determining the machiavellianist tendencies of the students of political sciences]. *Electronic Journal of Social Sciences*, *16*(63), 1361-1370.
- Szabó, E. & Jones, D. N. (2019). Gender differences moderate Machiavellianism and impulsivity: Implications for dark triad research. *Personality and Individual Differences*, *141*, 160–165.
- Şengül, B. Z., Ünal, E., Akca, S., Canbolat, F., Denizci, M., & Bastuğ, G. (2015). Validity and Reliability Study for the Turkish Adaptation of the Hypersensitive Narcissism Scale (HSNS). *Dusunen Adam: Journal of Psychiatry & Neurological Sciences*, *28*(3).
- Toprak, E. A. (2021). *Investigation of the effects of machiavellianism and narcissism-as personality traits-on employees' unethical behaviours: a field study* (Unpublished Master Thesis). Hacettepe University Institute of Social Sciences, Ankara.
- Tsai F. F., & Reis H. T. (2009). Perceptions by and of lonely people in social networks. *Personal Relationships*, *16*, 221–238.
- Twenge, J. M., & Campbell, W. K. (2015). *The narcissism epidemic: Living in the age of entitlement*. İstanbul: Kaknüs Publications.
- Uçkun, C. G., Üzüm, B., & Uçkun, S. (2018) Narsist kişiliğin makyavelist davranışlara etkisi: Kocaeli üniversitesi özel güvenlik öğrencileri örneği [Narsist personal effect on machiavelistic behavior: Kocaeli University of private security student case]. *Afyon Kocatepe University Journal of Social Sciences*, *20*(2), 139-154.

- Ülbeği, İ. (2016). Makyavelizm ölçeğinin güvenilirlik ve geçerlik çalışması [Reliability and validity study of the Machiavellianism scale]. *Çukurova University Journal of Social Sciences Institute*, 25(2), 89-100.
- Üzümcü, E. (2016). *Büyüklenmeci ve kırılğan narsisistik kişilik özellikleri ile ilişkili faktörlerin Şema Terapi modeli çerçevesinde incelenmesi* [Examination of the factors associated with grandiose and vulnerable narcissistic personality traits within the framework of the Schema Therapy model] (Unpublished Master Thesis). Hacettepe University Institute of Social Sciences, Ankara.
- Vaughan, R., Carter, G. L., Cockroft, D., & Maggiorini, L. (2018). Harder, better, faster, stronger? Mental toughness, the dark triad and physical activity. *Personality and Individual Differences*, 131, 206–211.
- Wilson, D. S., Near, D., & Miller, R. R. (1996). Machiavellianism: a synthesis of the evolutionary and psychological literatures. *Psychological Bulletin*, 119(2), 285-299.
- Wink, P. (1991). Two faces of narcissism. *Journal of Personality and Social Psychology*, 61(4), 590–597
- Wright A. G. C., Lukowitsky M. R., Pincus A. L., & Conroy D. E. (2010) The higher-order factor structure and gender invariance of the Pathological Narcissism Inventory. *Assessment*, 17(4), 467–483.
- Yaşın, F. (2018). *Sarmaşık'ın Machiavelli'ye uzanan kökleri: sarmaşık filminin machiavelli'nin siyaset felsefesi ile analizi* [Sarmaşık's roots going back to Machiavelli: analysis of sarmaşık movie with machiavelli's political philosophy] (Unpublished Master Thesis). Kadir Has University Institute of Social Sciences, İstanbul.
- Yazıcı, S., & Yazıcı, A. (2011). *Felsefi, psikolojik ve eğitim boyutlarıyla karakter* [Character with its philosophical, psychological and educational dimensions]. Konya: Çizgi Bookstore.
- Zhang, W., Zou, H., Wang, M., & Finy, M. S. (2015). The role of the Dark Triad traits and two constructs of emotional intelligence on loneliness in adolescents. *Personality and Individual Differences*, 75, 74-79.

Tables and Figures

Tables

Table 1: Sociodemographic Characteristics of the Sample

Sociodemographic Variables	Total (N = 200)
Gender (%)	
Female	110 (55)
Male	89 (44.50)
Other	1 (0.50)
Education Level (%)	
High school graduate	8 (4)
Bachelor's degree	151 (75.50)
Master's or doctoral degree	41 (20.50)
Marital Status (%)	
Single	109 (54.5)
Married/cohabiting with a partner	91 (45.5)
Mean Age (SD)	32.67 (6.20)

Table 2: Descriptive Statistics for Machiavellianism Scale, Narcissistic Personality Inventory, and Hypersensitive Narcissism Scale Total and Subscale Scores

Scales	N	Mean	Standard Deviation	Skewness	Kurtosis
Machiavellianism Scale	200	39.66	8.23	0.358	0.513
<i>Moral Deprivation</i>	200	8.89	3.22		
<i>Distrust for Others</i>	200	12.18	3.63		
<i>Desire for Status</i>	200	9.14	2.61		
<i>Desire for Control</i>	200	9.46	2.35		
Narcissistic Personality Inventory	200	4.89	2.76	0.684	0.726
Hypersensitive Narcissism Scale	200	21.92	4.13	0.406	1.213
Loneliness Scale	200	35.38	9.80	0.988	1.204

Table 3: The Relationship between Sociodemographic Variables and Narcissism, Machiavellianism, and Loneliness Scores

Scales	Mean Rank	Mann-Whitney Test	<i>p</i>
Machiavellianism Scale Total Score			
Female	94.99	$U = 4344$	.172
Male	106.19	$Z = -1.37$	
B.A. degree	96.37	$U = 3076$	.951
M.A. or Ph.D. Degree	96.98	$Z = -0.06$	
Single	104.62	$U = 4510$	.270
Married/Cohabiting	95.57	$Z = -1.10$	

Table 3: The Relationship between Sociodemographic Variables and Narcissism, Machiavellianism, and Loneliness Scores (Continued)

Scales	Mean Rank	Mann-Whitney Test	<i>p</i>
<i>Moral Deprivation</i>			
Female	98.26	<i>U</i> = 4704	.634
Male	102.15	<i>Z</i> = -0.48	
B.A. degree	95.16	<i>U</i> = 2893	.518
M.A. or Ph.D. Degree	101.44	<i>Z</i> = -0.65	
Single	103.06	<i>U</i> = 4680	.490
Married/Cohabiting	97.43	<i>Z</i> = -0.69	
<i>Distrust for Others</i>			
Female	94.21	<i>U</i> = 4258	.113
Male	107.16	<i>Z</i> = -1.58	
B.A. degree	98.31	<i>U</i> = 2822	.384
M.A. or Ph.D. Degree	89.83	<i>Z</i> = -0.87	
Single	102.64	<i>U</i> = 4726	.565
Married/Cohabiting	97.93	<i>Z</i> = -0.58	
<i>Desire for Status</i>			
Female	99.00	<i>U</i> = 4785	.784
Male	101.24	<i>Z</i> = -0.27	
B.A. degree	96.09	<i>U</i> = 3033.5	.843
M.A. or Ph.D. Degree	98.01	<i>Z</i> = -0.20	
Single	104.01	<i>U</i> = 4576.5	.344
Married/Cohabiting	96.29	<i>Z</i> = -0.95	
<i>Desire for Control</i>			
Female	93.67	<i>U</i> = 4198.5	.082

Male	107.83	$Z = -1.74$	
B.A. degree	95.84	$U = 2996.5$	.751
M.A. or Ph.D. Degree	98.91	$Z = -0.32$	
Single	100.85	$U = 4921$	.924
Married/Cohabiting	100.08	$Z = -0.095$	
Narcissistic Personality Inventory			
Female	96.15	$U = 4471.5$	.291
Male	104.76	$Z = -1.06$	
B.A. degree	97.96	$U = 2875.5$	.483
M.A. or Ph.D. Degree	91.13	$Z = -0.702$	
Single	100.67	$U = 4940.5$	.963
Married/Cohabiting	100.29	$Z = -0.05$	
Hypersensitive Narcissism Scale			
Female	94.37	$U = 4276$	.124
Male	106.96	$Z = -1.54$	
B.A. degree	97.23	$U = 2986$	.728
M.A. or Ph.D. Degree	93.83	$Z = -0.35$	
Single	105.64	$U = 4399$	.168
Married/Cohabiting	94.34	$Z = -1.38$	
Loneliness Scale			
Female	89.62	$U = 3753$	.005*
Male	112.83	$Z = -2.83$	
B.A. degree	100.67	$U = 2465$	.046*
M.A. or Ph.D. Degree	81.13	$Z = -2.83$	
Single	105.54	$U = 4410.5$	.178
Married/Cohabiting	94.47	$Z = -1.35$	

* Although these are statistically significant at the traditional p level of .05, they failed to remain significant at the Bonferroni-corrected p value of .002.

Table 4: Intercorrelations between Machiavellism, Narcissism, and Loneliness Scores

SCALE	1	2	3	4	5	6	7	8
1.MS-Total	1							
2.MS-MD	.738*	1						
3.MS-DS	.639*	.305*	1					
4.MS-DC	.692*	.330*	.416*	1				
5.MS-DO	.704*	.306*	.161*	.292*	1			
6.NPI	.390*	.210*	.339*	.436*	.147	1		
7.HSN	.414*	.333*	.100	.320*	.370*	.180	1	
8.UCLS	.238*	.160*	-.021	.057	.412*	-.004	.248*	1

MS: Machiavellianism Scale, MD: Moral Deprivation, DS: Desire for Status, DC: Desire for Control, DO: Distrust for Others, NPI: Narcissistic Personality Inventory, HSN: Hypersensitive Scale, UCLS: Loneliness Scale

** statistically significant correlations at the Bonferroni-corrected p value of 0.003.*