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The Mediating Roles of Smartphone Addiction and Resilience in the Relationship between Triangling and Differentiation of Self

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Abstract

Triangling is one of the factors in a better understanding of self-differentiation. University students may develop behavioral addictions to cope with higher exposure to triangling and have lower resilience, resulting in poor self-differentiation. The current study aimed to investigate the mediating role of smartphone addiction and resilience in the relationship between triangling and differentiation of self. The sample consisted of a total of 536 university students, and data were gathered using the Triangular Relationship Inventory (TRI), Differentiation of Self Inventory Short Form (DSI-SF), Smartphone Addiction Scale-Short Version (SAS-SV), Brief Resilience Scale (BRS), and Demographic Information Form. Findings indicated that the path from triangling to smartphone addiction to resilience explained 45% of the variance in differentiation of self. Smartphone addiction has mediated the relationship between triangling and differentiation of self. However, resilience was not a significant mediator in the relationship between triangling and differentiation of self. Strategies (i.e., de-triangling) may help university students overcome SPA. The current study underlies the potential threats associated with triangling on behavioral addictions (i.e., smartphones), in which the risks may increase as resilience levels of university students decrease, resulting in lower self-differentiation.

Keywords: Triangling, Differentiation of self, Resilience, Smartphone addiction

Introduction

Family relationships may become paradoxical due to the inherent contradiction between the needs of togetherness and separateness (Kerr & Bowen, 1998; Williamson, 1991). Murray Bowen's Therapy of Family Systems (BFST; Bowen, 1978) is one of the leading approaches that concentrates on this underlying dilemma by defining several concepts of the family of origin, such as triangling and differentiation of self (DoS). These two concepts are inversely related (Bresin et al., 2017) to each other and play a crucial role in family members' optimal functioning (Kerr & Bowen, 1988); symptoms (e.g., addictions) may emerge in the family system otherwise. Recent research has supported this argument, indicating that family-of-origin triangulation is associated with symptoms such as marital instability (Song et al., 2022) and depression (Wang & Crane, 2001). Similarly, DoS has been associated with online game addiction among university students (Jiaojiao et al., 2023). Children's behavioral disorders may be signs of a more serious issue in their family of origin (Young, 1998). Thus, the current study focused on Bowen's (1978) constructs of triangling and DoS, which were specific family dynamics in understanding behavioral symptoms (i.e., addiction) among university students.

Triangling and Differentiation of Self (DoS)

DoS is the core construct of BFST, requiring two crucial skills (Bowen, 1978; Kerr & Bowen, 1988): (1) One should distinguish cognitive functions from emotional reactions to stressful events for greater DoS. In this way, individuals can respond more rationally to adversities, especially in stressful and anxiety-fueled situations, instead of giving more emotionally reactive and automatic responses. Otherwise, individuals have more difficulties with this ability to regulate their emotions and thoughts in the face of challenging situations (intrapsychic dimension). (2) One's ability to maintain authentic, intimate relationships with significant others while achieving individuation. In the absence of greater DoS, several emotional symptoms within the family system emerge, and triangling is one of them (Kerr & Bowen, 1988).

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A triangle is an emotional unit with a trio of family members, including the mother, father, and child. Triangles arise as symptoms when there is an absence of a greater DoS in the family system (Kerr & Bowen, 1988). Triangles develop as family boundaries become rigid, and a dyadic relationship produces chronic anxiety over time, particularly in stressful situations (e.g., crises). A third person (e.g., kin or friend) is involved in a dyadic relationship to mitigate stress and anxiety on both sides. Triangling typically emerges between two parents and a child and is more likely to occur in families with higher levels of chronic anxiety (Kerr & Bowen, 1988). Triangles that parents initiate have been classified into four distinct categories (Bell et al., 2001): (1) In the *balanced* type, a dyad can resolve disagreements effectively where family members are equally distant from one another's boundaries. (2) The *mediator* is in a pull-in position in which children serve as a bridge between parents, calming both sides and developing closer bonds with either parent than the parents do with each other. (3) When one parent and one child align with one parent against the other, also known as side-taking, a *cross-generational coalition* forms. (4) To maintain the dyadic relationship, *scapegoating* illustrates the child's position being pushed out in a triangle. The dyad becomes more preoccupied with the child's issues than their marriage. Whether the child is impacted by the conflict depends on the couple's ability to handle psychological distress. Children are less likely to be included in the triangle, depending on how healthy the dyadic relationship is with stress. BFST establishes a link between the family of origin dynamics and addictions of alcoholism (Bowen, 1978), substance abuse (Pinheiro et al., 2006), and recent research has also focused more on technology-based addictions such as game addiction (Yu & Park, 2016) and social media addiction (Sotero et al., 2019). However, no study has investigated behavioral addictions such as smartphone addiction (SPA) in the context of triangling and DoS, to the author's knowledge.

Smartphone Addiction

Smartphones are mobile phones that provide internet use and access to mobile apps and have become high-priority tools for most individuals. Mobile phones reached almost 6.4 billion users worldwide in 2022 and are expected to be 7.7 billion by 2028 (Taylor, 2023). With the increasing use of smartphones, millions of students had a chance to have remote education via their smartphones during the COVID-19 pandemic days. Türkiye (where the present study was conducted) has a similar trend, in which smartphone use rates were 75% among adolescents between 11 and 15 years old (Turkish Statistic Institute [TÜİK], 2021). Alongside the benefits, there has been increasing concern over the potential for excessive smartphone use, mostly indicating functional impairment among university students (Lin et al., 2016). Such digital devices' uncontrolled use negatively affects some individuals' functioning and may lead to addiction for a small percentage of users (Griffiths, 2000). Addiction is a persistent and relapsing disorder manifesting itself through compulsive drug-seeking behaviors in which individuals lose their self-control over consumption, despite adverse effects (Berridge & Robinson, 2016). Digital addiction, meanwhile, reflects non-chemical addictive behaviors indicating human-machine interaction (Griffiths, 1999).

Whether behavioral addictions (e.g., social media) may be referred to as addictions is an ongoing debate. Some researchers use terms such as 'problematic social media use' (Zendle & Bowden-Jones, 2019) instead of 'addiction'. On the other hand, Griffiths (2005) claims that any addiction has six key characteristics and that no matter the type of behavior, any person engaging in a behavior that meets these six criteria should be operationally defined as addicted. The six-component model (Griffiths, 2005) of SPA illustrates these criteria: (1) *Mood modification* refers to one's internal relieving results in immediate mood changes via SPA. Smartphone use becomes a tool to overcome stress and provide addicts with an alternate reality through psychological reinforcement. (2) *Tolerance* refers to one's excessive smartphone use at an increasing rate, maintaining the former mood-modifying effect (i.e., relieving). Individuals need increasing amounts of smartphone use to have former relieving effects. (3) *Withdrawal* indicates symptoms of uncomfortableness with a reduction in smartphone use. For example, addicts may feel nervous and irritable or have physiological reactions when prohibited from using their smartphones. (4) *Conflict* reflects the interpersonal difficulties of smartphone addicts, which indicates an impairment in functioning in particular activities (e.g., academic achievement) and their relationships, especially with their significant others. (5) *Salience* indicates that smartphone use becomes the dominant activity in addicts' daily lives that influences functioning levels in managing their emotions, thoughts, and behaviors constructively. (6) *Relapse* describes smartphone addictive behaviors that may relapse after abstinence, though addicts give up or control their excessive use, albeit for a while.

Moreover, research (Park & Choi, 2017) suggests that resilience is one of the dynamics in understanding SPA. Especially stressful life events (e.g., COVID-19) are risk factors for SPA that reduce adolescents' resilience (Yıldırım & Çiçek, 2022). Adolescents seem more vulnerable to emotional dysregulation, such as depression or impulsivity, when they have poor resilience (Kim et al., 2014). The current study assumes that family dysfunction may also be a source of stress. University students may chronically respond to their aversive

internal stimulus with excessive smartphone use once dysfunctional family patterns (i.e., triangling) emerge, negatively affecting their psychological functioning. More specifically, the addictive behaviors in smartphone use might be a reaction to their triangling experiences that climax in university students' efforts to balance their parents' unhealthy or conflictual relationship system, in which their resilience level is affected.

Resilience

There is uncertainty about the meaning and content of resilience. Thus, the word contains many ambiguities and blurred meanings; definitions frequently emphasize the construct as a trait, coping strategy, or outcome (Luthar et al., 2000). Even the scales on the construct focused on the factors that improve resilience rather than the recovery from adversity or one's return process to a former functional state (Smith et al., 2008). Still, common critical points in definitions exist, such as "homeostatic return to a prior condition" (Carver, 1998, p. 247) and an ability to adapt to adversity or stressful life events (Liu et al., 2017). Nevertheless, resilience is a more comprehensive process than recovery, reflecting an ability to preserve equilibrium as an extension of coping (Bonanno, 2004) and the bounce-back from stressful situations (Smith et al., 2008). Resilience is more likely to be achieved when individuals overcome the effects of a prolonged adverse experience (e.g., trauma) or when detrimental effects are absorbed by supportive intimate relationships (Herrman et al., 2011).

Contemporary approaches focus on more integrative and multi-faced models of resilience, including intra-individual, interpersonal, and socio-ecological dimensions (Liu et al., 2017). For instance, *internal resilience*, or interpersonal dimension, consists of skills and experiences in relationships with significant others and social groups. *Core resilience* reflects intra-individual factors, including health-related behaviors, stress-reacted systems to adversities, gender/sex, physiology, and biological elements. *External resilience* indicates socio-ecological factors, including individuals' socioeconomic status and access to formal or informal institutions in society. Resilience-related research on youth mainly concentrated on particular dimensions reflecting the associations between resilience, stress, and social support (Bacchi & Licinio, 2017; Hamdan-Mansour et al., 2014; Kokou-Kpolou et al., 2021; McGillivray & Pidgeon, 2015). However, the interpersonal dimension demonstrates that significant others (i.e., family) contributions rarely concern researchers. The conjunction of SPA, stress, and resilience in the sample of university students is also considered (Kim & Sim, 2018), especially in the Far East countries. In smartphone use, risky groups of university students reported lower resilience levels (Kim et al., 2014). Resilience is a protective factor against excessive smartphone use (Shen, 2020), and improvements in the ego-resilience levels of university students decreased their SPA levels (Jun & Jo, 2016).

Resilience and DoS have theoretical similarities; both are developmental processes shaped throughout life experiences beginning in childhood (Greene et al., 2003; Kerr & Bowen, 1988). Moreover, the intrapsychic dimension of DoS reflects a similar mechanism to resilience: "someone who is resilient and capable of deciding how much to control emotion would likely be able to distinguish between cognition and emotion" (Prince-Embury, 2013, p. 327). Resilience and DoS support individuals' adaptive coping strategies against adversities. For instance, Sutherland et al. (2009) indicated that women with lower DoS and resilience levels were less able to recover from substance abuse. Other researchers have revealed that higher DoS levels predicted lower stress and higher resilience in an adult Turkish sample (Süloğlu & Güler, 2021). Alongside, we propose two factors that are interrelated with university students' resilience levels in the current study, reflecting their psychological functioning levels: triangling in their family-of-origin that resulted in excessive use of smartphones and a weakened state of resilience.

Rationale for the Current Study

SPA may be considered a symptom from the BFST perspective. The function behind this symptom might be to indicate that a small number of adolescents unconsciously attempt to regulate parental tension (i.e., triangling), especially during conflicts, by drawing attention from the dyadic relationship to the risky behavior of SPA. Triangling may also reflect the university students' poor emotion-regulation strategies and abilities to adapt dysfunctional family relationship patterns, which reveal chronic anxiety with lower DoS in their lives. In this formulation, resilience and DoS may be the weakening abilities due to university students' dysfunctional coping mechanisms for excessive smartphone use. The SPA among Turkish university students is substantial (Noyan et al., 2015). The relationship between DoS and SPA is well-defined, indicating that individuals with higher DoS can manage their emotions more healthily and report lower SPA. The fusion or enmeshed (reflecting lower DoS) patterns of family relationships emerged as distinct dimensions regarding DoS (Ercengiz et al., 2020; Jimeno et al., 2021; Park & Park, 2017). We chose SPA as a mediator variable because smartphones bring many conveniences to our daily lives besides their adverse effects on interpersonal relationships, physical and mental health, well-being, and functionality (Park & Lee, 2012). A small percentage of university students are inclined to use smartphones excessively, which may be related to the problems they experience in their close

relationships. Turkish university students reported that smartphones provide them with an escape from their problems. They no longer need others, do not feel alone, and handle the difficulties of expressing themselves in face-to-face relationships (Özdemir et al., 2019).

Characteristics of SPA in university students' daily lives may provide a symptomatic context for better understanding the effects of dysfunctional relationship mechanisms in their family of origin, such as triangling. Still, no studies have investigated the mediating role of SPA in the relationship between triangling, resilience, and DoS from an integrative perspective. In other words, we assume university students react to triangling with SPA as a coping mechanism. Furthermore, we presume that this link between triangling, SPA, and resilience can be better understood when DoS is included in the model as an exogenous variable. The direct and indirect effects of triangling on DoS were examined previously (Ross et al., 2016). The triangling may form the individuals' DoS levels throughout their childhood and adolescence experiences within an intergenerational relationship system (Ross et al., 2016). Thus, we suggest that the association between resilience and the DoS levels of our participants will be negatively affected by the association between triangling and resilience. Investigating triangling and DoS with another theoretical construct of resilience and SPA from an integrationist perspective can significantly contribute to the literature, for which no studies have recently been available to figure out which has the following hypotheses:

Hypothesis 1: SPA mediates the relationship between triangling and DoS.

Hypothesis 2: Resilience mediates the relationship between triangling and DoS.

Hypothesis 3: The association between triangling and DoS was serially mediated by both SPA and resilience.

Method

Participants and Procedure

Using convenience sampling, 536 undergraduate students (331 females, 61.8%; 205 males, 38.2%) participated in the study from universities in the north region of Türkiye. Participants were aged between 18-23 years old (94%). They reported an average GPA of 2.99 ($SD= 0.39$) in the 4.00 grading system. The participants' parents were mainly married and living together (479, 89.4%). 333 participants lived with their friends (in a dormitory or flat, 62.1%). Of 161 of them, 30 were living with their parents (30%), 28 were alone (5.2%), 8 were with a partner or spouse (1.5%), and 6 were with their relatives (1.2%). No incentives were provided to students to participate in the study. Researchers were granted ethical permission from the institutional review board of the Ordu University Social and Human Sciences Ethics Committee (approval number: 2021-199). The study was conducted in accordance with the Declaration of Helsinki and the ethical guidelines of this institutional review board. Due to COVID-19 conditions, the data were uniquely collected by the online survey method between November 2021 and December 2021. Participants were informed of the purpose of the study in WhatsApp student groups, and they declared their voluntariness via a consent form on the first page of the Google form. University students started these groups to sustain communication and remote learning between students and academics during COVID-19.

Instruments

Triangular Relationship Inventory

The TRI (Bresin et al., 2017) assesses the triangling levels of young adults with 24 items (e.g., "My parents handle tension between one another without including me") using a 5-point Likert type (total scores range between 24 and 120). Higher scores indicate higher triangling levels. Cronbach's alpha coefficient of total TRI produced .93. Total TRI's test-retest reliability was .76 in the original study (Bresin et al., 2017). Turkish TRI (Kurşuncu & Baştumur, 2020) produced a similar Cronbach's alpha coefficient of .88 to the original scale. Turkish TRI's test-retest reliability for university students was .80. The total TRI produced .87 for McDonald's Omega and .88 for Cronbach's Alpha coefficient in the current study.

Differentiation of Self Inventory Short Form

The DSI-SF (Drake et al., 2015) assesses the DoS levels of young adults and adults with 20 items (e.g., "I am extremely sensitive to criticism") using a 6-point Likert type (total scores range between 20 to 120, and 5 to 30 on mean values). Higher scores indicate higher DoS levels. Cronbach's Alpha coefficient of total DSI-SF produced .88. Total DSI-SF's test-retest reliability was .85 in the original study (Drake et al., 2015). Turkish DSI-SF (Sarıkaya et al., 2018) produced a similar Cronbach's Alpha coefficient of .82 to the original scale. Turkish DSI-SF's test-retest reliability was .86. The total DSI-SF has .84 for McDonald's Omega and Cronbach's Alpha coefficients in the current study.

Smartphone Addiction Scale—Short Version

The SAS-SV (Kwon et al., 2013) assesses the smartphone addiction of university students with ten items (e.g., “Even if I don't use it, my smartphone is on my mind”) using a 6-point Likert type (total scores range between 10 and 60). Higher scores indicate a higher smartphone addiction risk. Cronbach's alpha coefficient of SAS-SV produced .91 (Kwon et al., 2013). Turkish SAS-SV (Noyan et al., 2015) has a Cronbach's alpha coefficient of .87. Turkish SAS-SV's test-retest reliability was .93. The total SAS-SV had .91 for McDonald's Omega and Cronbach's Alpha coefficients in the current study.

Brief Resilience Scale

The BRS (Smith et al., 2008) assesses individuals' resilience levels with six items (e.g., “I have difficulty coping with stressful events”) using a 5-point Likert type (scores range between 6 and 30). Higher scores indicate higher resilience levels. Cronbach's alpha coefficients of BRS were .80 to .91 in different sample groups. Test-retest reliabilities were also .62 to .69 in the same sample groups (Smith et al., 2008). Turkish BRS (Doğan et al., 2015) had a Cronbach's alpha coefficient of .83. The total BRS had .87 for both McDonald's Omega and Cronbach's Alpha coefficients in the current study.

Demographic Information Form

Researchers developed a study-oriented form (e.g., gender, age, GPA, parents' marital status, whether or not participants live separately from their parents, with whom participants lived) describing the demographic characteristics of the participants briefly.

Data Analysis

Preliminary analyses, including bivariate correlations among the study variables, were first examined using SPSS 22 (IBM, 2013). The inflated chi-square statistic (Nevitt & Hancock, 1998) was adjusted using the Maximum Likelihood Estimation (MLE in AMOS 24; Arbuckle, 2016). For SEM results, the fit indices and cutoff values were considered as χ^2/df -ratio < 3 (Kline, 1998); CFI \geq .95, NNFI \geq .95, RMSEA < .06, and SRMR < .08 (Hu & Bentler, 1999). As some scales consisted of many items attributed to a single latent variable (e.g., 24 items for triangling, 20 items for DoS), item parcels were employed to adjust inflated measurement errors and the bias in structural parameters (Bandalos, 2002). The model generated four parcels for triangling and DoS and three parcels for SPA as measurement indicators. Using a random assignment technique based on the mean values of the items from highest to lowest, the individual items of triangling, DoS, and SPA were assigned to these parcels (Little et al., 2002).

Results**Preliminary Analysis**

We had no missing data, as responding to all items in the Google form was mandatory. The skewness (highest, 1.25) and kurtosis (highest, -1.44) values were within suggested limits (Kline, 2011). The highest bivariate Pearson correlation ($r = .53$ max.) among study variables was also within the required limit of .90 (Kline 2011), and the tolerance values were above .20 for the variables (minimum tolerance = .71). No violation of homoscedasticity or linearity was noticed in the scatterplot and partial regression plots. The sample exhibited a higher level of DoS ($M = 18.10$, $SD = 3.51$), moderate level of resilience ($M = 18.27$, $SD = 5.07$), lower level of triangling ($M = 62.44$, $SD = 16.24$), and SPA ($M = 31.60$, $SD = 11.12$) when possible range scores were examined (Table 1). The strongest bivariate Pearson correlation among study variables was between DoS and resilience ($r = .53$, $p < .001$). The correlation between triangling and resilience was not significant.

Table 1. Descriptive, Bivariate Pearson Correlations, and Reliabilities of the Study Variables (N=536)

	1. Triangling	2. Smartphone addiction	3. Resilience	4. Differentiation of self
1.	-			
2.	.18**	-		
3.	-.06	-.19**	-	
4.	-.15*	-.36**	.53**	-
M	62.44	31.60	18.27	18.10
SD	16.24	11.12	5.07	3.51
Range	24-116	10-60	6-30	5.25-27.25

Note: ** $p < 0.001$; * $p < 0.002$ level (two-tailed).

Mediation Model

The model (in Figure 1) examined the indirect relationships between triangling, SPA, and resilience in predicting the scores for DoS. Findings indicated a good model fit of $\chi^2 (113)/224.18=1.98, p<.001$; CFI = .98; NNFI = .98; SRMR = .03; RMSEA = .043 (90% CI=.035-.051). Factor loadings were between .66 and .95 in the model. Triangling accounted for 3% of the variance in SPA. Together, triangling and SPA accounted for 5% of the variance in resilience. Triangling, SPA, and resilience together explained 45% of the variance in DoS. The direct effect of triangling on DoS ($\beta = -.07$) was not significant.

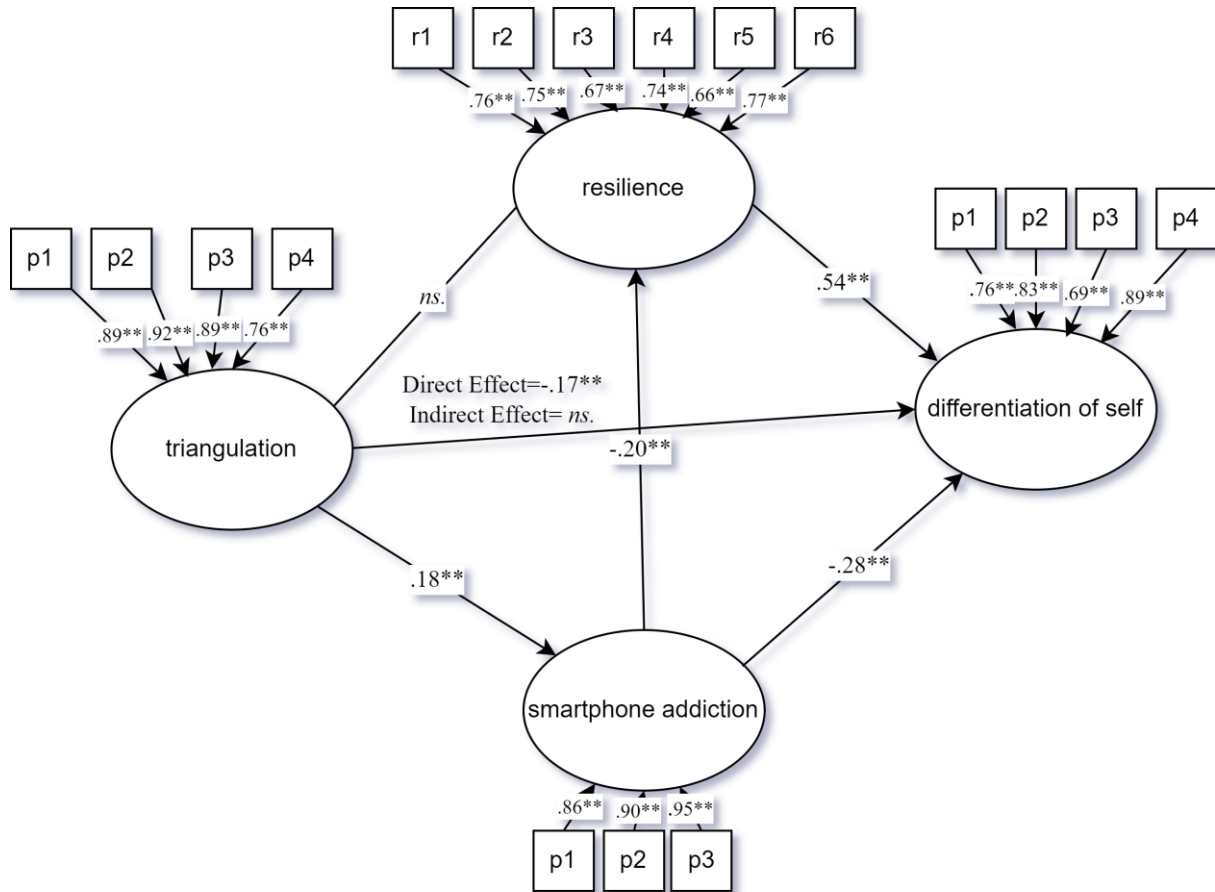


Figure 1. Standardized coefficients and paths of the mediation model (** $p<.001$)

H₁ (triangling to SPA to DoS)

The path from triangling ($\beta = -.04, p<.010, [CI= -.02, -.06]$) to DoS (via SPA) was significant, and SPA fully explained the association as a mediator. When university students had higher exposure to triangling, they reported more SPA and a lower DoS.

H₂ (triangling to resilience to DoS)

The path from triangling ($\beta = -.02, ns.$) to DoS (via resilience) was not significant.

H₃ (triangling to SPA to resilience to DoS)

The path of triangling ($\beta = -.01, p<.003, [CI= -.01, -.03]$) on DoS (via SPA to resilience) was significant. When university students had higher exposure to triangling, they reported more SPA, lower resilience, and lower DoS.

Discussion

Triangling to SPA to DoS (H₁)

The first hypothesis investigated was whether triangling predicted DoS through SPA. The analysis revealed the full mediating role of SPA. More accurately, triangling did not directly contribute to DoS unless university students reported SPA. This first hypothesis contributes to research (Willis et al., 2021) that has examined the relationship between triangling and DoS. BFST (Bowen, 1978; Kerr & Bowen, 1988) presumes that parents with higher DoS are less likely to include their children in a triangle. Moreover, cross-generational and mediator types of triangling have been correlated to higher degrees of psychological symptoms among university students (Murdock et al., 2022). The symptom in the current model is considered SPA. The function of SPA might be to help university students escape the detrimental emotional effects of triangling through excessive smartphone use.

Triangling to resilience to DoS (H₂)

We found no significant indirect effect of triangling to resilience to DoS. This finding may be related to the characteristics of the current sample, as participants reported lower triangling and SPA but higher resilience and DoS when possible range scores on mean values were examined. Moreover, the bivariate Pearson correlation between resilience and DoS was the strongest. On the other hand, the bivariate relationship between triangling and DoS was weak, and no relationship between triangling and resilience was found. The symptom-producing manner of triangling seemed to work only when triangling was correlated with SPA. When participants reported higher resilience and DoS, the adverse effect of triangling may have weakened.

Triangling to SPA to resilience to DoS (H₃)

When SPA and resilience were included in the model, the direction of the indirect effect in the first hypothesis remained significant and constant. The H₃ theoretically consolidated the association between triangling and DoS through SPA and resilience. When university students reported higher triangling, a small number of students reported higher SPA, predicting a lower resilience and DoS. The current study (with H₃) may have completed the missing piece of the picture that the researchers indicated separately for the study variables. For instance, Kim et al. (2014) reported an inverse relationship between SPA and resilience. Süloğlu & Güler (2021) represented a positive relationship between resilience and DoS. Bresin et al. (2017) defined an inverse association between triangling and DoS. Moreover, Ercengiz et al. (2020) demonstrated that intolerance of uncertainty mediated the relationship between DoS and nomophobia among university students. One can suppose that intolerance of uncertainty has great concordance with resilience, as research also suggests an association (Lee, 2019). Nomophobia was also classified as Smart-Phone Addiction Disorder (Tran, 2016). The path from DoS to intolerance of uncertainty to nomophobia is supported by the authors (Ercengiz et al., 2020), indicating the predictor role of DoS in nomophobia. Furthermore, H₃ presents a similar structure and suggests triangling (reflecting poor DoS) as one of the predictors to associate with SPA in expanding the previous research. Findings of H₃ may explain the links among these variables with BFST's emphasis on triangling, which is one of the boundary-violating patterns reflecting the 'closed' family systems (Kerr & Bowen, 1988). In the configuration of BFST, triangling is a symptom when family members have poor DoS levels. However, triangling may also have a symptom-producing characteristic or aggravate these symptoms (Mayseless & Scharf, 2009), on which the current findings have a similar emphasis. On the other hand, based on the mean values of the participants in the current study indicating moderate resilience and greater DoS levels, and on H₃ findings, one can conclude that higher resilience and DoS might play protective roles against behavioral addictions and triangling. Van Dijk et al. (2021) indicated that unless they have greater self-esteem, adolescents from dysfunctional families might get involved in more triangling and problematic internet use. Similarly, greater resilience and DoS may weaken the adverse effects of triangling and SPA. University students in the current sample may have been better able to cope with the consequences of triangling and SPA when they exhibited stronger resilience and DoS.

Implications for Theory and Practice

The results supported the underlying theoretical framework of triangling, which explains how a behavioral addiction (i.e., SPA) within a family system might develop. These findings can help researchers expand their theoretical approach or methodology and aid them in creating their interventions. By developing psychosocial intervention programs on SPA using integrative theoretical models similar to the current model, academics in mental health may support universities' psychological counseling centers. Moreover, the present study theoretically contributed to research (Hanson, 1997; Ross et al., 2016; Willis et al., 2021), indicating a weak inverse or no relationship between triangling and DoS on BFST's assumption. Although triangling correlated with DoS in the current preliminary analysis, triangling had no slightly direct effect on DoS in the mediation analysis.

Implications for Practice

Mental health specialists may consider the possible negative impacts of triangling and poor DoS on behavioral addictions and target creating de-triangulation strategies with their clients suffering from SPA. According to Titelman's (2008) suggestions, therapists may assist clients in several ways. For instance, specialists may help clients develop their abilities to sustain "neutral, person-to-person contact" (Titelman, 2008, p. 48) in a dysfunctional family. Such an ability allows one to have an objective perspective on the emotional functioning mechanisms of a family of origin. However, gaining this perspective is the first step, and the clients should progress toward getting rid of emotional symptoms. For instance, emotional reactivity is one of these symptoms in BFST (Kerr & Bowen, 1988), indicating poor DoS and self-regulation practices on cognitions and feelings may help clients. Moreover, clients become more conscious of their own contribution to the dysfunctional dynamics in their families.

Limitations

The current study has several limitations: (1) The participants were mainly female (61.8%), and a suggestion may be for future studies to have demographically more gender-balanced samples. (2) The participants were not mainly living with their families during the data gathering (62.1%), and a suggestion may be for future studies to have samples who live with their parents to understand the adverse effects of triangling more specifically. Because living apart from the parents may weaken the adverse effects of some typical characteristics of triangling, such as scapegoating (Wang et al., 2017), (3) The current results depend on the self-reports of university students. A suggestion may be for future studies to conduct intergenerational interviews for a more accurate assessment of triangling in addition to the self-reports of participants. (4) The current study was cross-sectional and longitudinal studies may be more applicable to more specific empirical evidence on triangling and DoS and how participants manage the dysfunctional family environment in the long run.

Conclusion

Triangling may produce behavioral addictions (i.e., SPA) and weaken the psychological functioning of university students, and in the current study, resilience and DoS were considered. On the other hand, detriangling strategies with an effort to increase DoS may protect university students from the negative impacts of SPA, resulting in higher resilience and DoS.

Recommendations

One remedy may be to learn how university students manage their unpleasant emotions related to triangling experiences. To prevent behavioral addictions (i.e., SPA) and improve psychological well-being among university students, the potential risks of triangling should be addressed in universities' mental health centers.

Author(s) Contribution Rate

The author contributed at all stages, including planning, conducting and writing.

Conflicts of Interest

There is no conflict of interest in this study.

Ethical Approval

Ethical permission (2021-199) was obtained from Ordu University Social and Human Sciences Ethics Committee for this research.

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