The Relationship between Attachment Instability and Mental **Health: Mediating Role of Dispositional Envy**

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ABSTRACT: The malicious envy felt by individuals due to social structural problems is more serious than ever. Recently, as internet and Social Network Site (SNS) have been developed, researches on dispositional envy and psychological health are increasing. Dispositional envy is closely related to attachment insecurity because it occurs mainly in relationships with surrounding people. Studies have also shown that insecure attachment can impair psychological well-being and make the individual vulnerable to depression. Attachment instability and envy both decrease psychological health. The purpose of this study was to examine the relationship between attachment instability and psychological health, mediated by dispositional envy. The study sample consisted of 155 males and 194 females participants with an average age of 40.16 years (SD=10.66). The self-report measures of collecting data are comprised of Dispositional Envy Scale, Experience of Close Relationship, Beck Depression Inventory and Psychological well-being. Simple correlation showed that attachment instability and envy were highly correlated with depression and psychological well-being. Also, the multiple regression analysis showed that envy mediated partially between attachment instability and psychological health. Results suggest that people with insecure attachment exhibit poor psychological health because of feelings of envy. The implications and limitations of this research were discussed.

KEYWORDS: Attachment instability, Dispositional envy, Emotional well-being, Psychological health

KEY POINTS

What is known about this topic

- Attachment instability is associated with psychological health.
- Dispositional envy correlates with attachment instability and is associated with psychological health.
- Upward comparisons provoke strong distressful feelings within insecurely attached individuals.

What the paper adds

- Dispositional envy mediated the relationship between attachment anxiety and psychological health
- Dispositional envy mediated the relationship between attachment avoidance and psychological health.
- Individuals who have unstable attachment style are easy to fall into depression and low psychological well-being via envy.

INTRODUCTION

Attachment originally referred to an emotional bond between infants and caretakers, but it has recently been recognized as a concept that can be formed with any person. After Bowlby (1973,

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1988), Ainsworth et al., (1978) classified infant attachment types as secure, avoidant and anxious/ambivalent. These three types have similar meaning to Bowlby's assertion that infants form an internal working model in that they reflect infant expectations about the accessibility and responsiveness of caregivers. It was Hazen and Shaver (1987) who started to study the attachment of infants to adult relationships. In a study of attachment styles in childhood

and adulthood, Hazen and Shaver found that the degree of spread of the three types of attachment was similar to that of children's attachment to children.

Attachment insecurity is divided into two dimensions: attachment anxiety and attachment avoidance (Brennan, Clark, & Shaver, 1998; Mikulincer & Shaver, 2003, 2007, 2016). Although attachment stability improves overall well-being, these two attachment instabilities are correlated positively with mental disorders such as depression, marital conflict and pathological narcissism (Hazen & Shaver, 1987; Rohmann, Neumann, Herner & Bierhoff, 2012; Widom, Czaja, Kozakowski, & Chauhan, 2018) and negatively with well-being (Wei, Liao, Ku, & Shaffer, 2011). The researchers assumed various mediators such as anxiety, self-esteem and self-efficacy expectation between attachment instability and psychological health. In this study, envy was assumed as a mediator in this relationship based on a previous study (Baumel & Berant, 2015).

Envy is a negative feeling emanating from upward emotional comparisons with others (Parrott, 1991). Envy is a painful emotion that someone feels when other people own something that the person longs for or wants to get (Parrott & Smith, 1993). Especially, in a culture like Korea, where the upward comparison is strong, uncomfortable feelings caused by envy are widespread throughout society. There is a saying that "I get sick when my cousin buys land."

Envy is an uncomfortable feeling and people try to get rid of the unpleasant emotions they feel. Studies have shown that envy is related to hostility (Kim & Glomb, 2014) and aggression (Hofer & Busch, 2011) and in recent studies on Social Network Sites (SNSs), envy negatively affected individual well-being and even caused depressive feelings.

Envy has a positive aspect because it induces motivation to improve oneself, but malicious envy has the potential to undermine an individual's wellbeing and even lead to depression. It can be inferred that this emotional discomfort comes from unfavorable comparisons with others and that this emotion is particularly related to attachment instability.

Examining the interpersonal experience of malicious jealousy from the point of view of attachment theory provides the theoretical basis for why some people desire to pull down an envied person to weaken the significance of particularly painful situations (Baumel & Berant, 2015). Attachment style can be divided into two dimensions: anxious attachment and avoidance attachment. When both levels are low, it indicates secure attachment and when one or two dimensions are high, it indicates insecure attachment. People with stable attachment are confident in their value, so they easily overcome negative emotions emerging from upward comparisons and regain emotional balance. The value of others does not threaten

their self-worth (Baumel & Berant, 2015). People with avoidant attachment also seek independence because they do not believe in the goodness of the attachment figure. They use a deactivation strategy to deny attachment needs and suppress emotional response (Milulincer, 1998). According to these studies, avoidantly attached individuals do not appeal to high levels of emotional distress in situations where deficiency occur.

As such, envy is closely related to attachment instability and it may cause emotional distress through upward comparisons among insecurely attached individuals, threatening mental health. SNSs often trigger envy (Chen & Lee) and individuals who are vulnerable at upward social comparison are apt to experience feelings of depression (Appel et al., 2015) and poorer well-being (Verduyn et al., 2015).

Based on previous research, we hypothesized that dispositional envy might mediate the relationship between insecure attachment and psychological well-being. In this study, we will examine whether envy plays a mediating role in the relationship between attachment instability and psychological health. Thus, the specific research hypothesis is that attachment instability will be indirectly related to psychological health through envy (Figure 1). High attachment instability is associated with higher envy, which, in turn, will be associated with lower psychological health.

MATERIAL AND METHODS

Research Subjects and Procedures

A questionnaire survey was conducted on 352 people via the Internet. Participants who voluntarily agreed to participate in the study completed the questionnaire for 15-20 minutes individually and the results were automatically stored in Excel. A total of 349 data (155 males, 194 females) were analyzed except for those who answered unfaithfully.

Instruments

- 1) Dispositional Envy Scale (DES): Envy was assessed with the eight-item Dispositional Envy Scale (Smith et al., 1999). This scale is to individual differences in the tendency to envy others. DES can be rated on 5 points Likert scales ranging from "strongly disagree" (1 point) to "strongly agree"(5 point). The higher the score, the higher the dispositional envy. We used the Korean version of Dispositional Envy Scale (DES), which was adapted by Cha (2010). The internal reliability coefficient of DES in the original scale was 0.80 and the reliability coefficient was 0.81 in this study.
- 2) Experience of Close Relationship-Revised (ECR-R): ECR-R, the adult attachment measure, was used to assess attachment instability. This scale was originally developed by

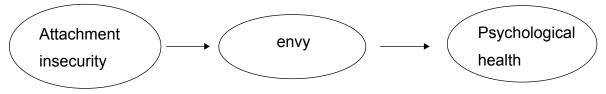


Figure 1: Hypothesized mediating effect

Fraley, Waller, & Brennan (2000). ECR-R is to assess the adult attachment style in two dimensions: anxiety attachment and avoidance attachment. Anxiety attachment implies fear of being abandoned, while avoidance attachment indicates rejection of intimacy and dependency in important relationships.

ECR-R consisted of 36 items, 18 items of anxiety attachment and 18 items of avoidance attachment and 7 points Likert scale from "Not at all" (1 point) to "very much" (7 point). The higher the score of each subscale, the higher the attachment type can be. Kim (2004) reported Cronbach's α of attachment anxiety was 0.89 and Cronbach's α of attachment avoidance was 0.85. In this study, reliability coefficients were 0.90 and 0.87, respectively.

3) Beck Depression Inventory (BDI): The BDI (Beck, Ward, Meldalson, Mock, & Erbaugh, 1996) is a self-rated scale that was developed to assess the severity of depression. Twenty-one items are rated on a 4-point scale with the total score obtained from the sum of all items. Lee and Song (1991) assessed the validity and the reliability of the Korean version of the scale. The Cronbach's alpha coefficient of Korean version BDI was 0.92. In this study, reliability coefficient was 0.90.

4) Psychological Well-Being (PWB): The PWB (Ryff & Keyes, 1995) is a self-report inventory that measures six dimensions of psychological well-being, such as environmental mastery, selfacceptance, purpose in life and personal growth. We used the reduced 18-item version of the scale that had been translated into Korean (Kim et al., 2001). The Cronbach's alpha coefficient of the Korean version PWB was 0.89. In this study, reliability coefficient was 0.88.

Statistical Analysis

Statistical analysis was performed to examine the demographic characteristics of the collected data and internal consistency was analyzed to determine the reliability of the measurement tools via SPSS STATISTICS Version 22. To analyze the mediating role of the variable, multiple regression analysis was conducted on three major variables of attachment instability, envy, depression measure and psychological well-being. Finally, the Sobel test was conducted to verify the significance of the mediation effect.

RESULTS

Demographic Characteristics

The demographic characteristics of the study participants are shown in Table 1. There were 155 men (44.4%) and 194 women (55.6%) with a mean age of 40.16 years (± 1.66).

Correlation Analysis of Major Variables

The correlation analysis results of the main variables are shown in Table 2. Attachment avoidance has a positive correlation with envy (r=0.367, p<0.01), BDI (r=0.416, p<0.01) and negative correlation with Psychological well-being (r=-0.565, p<0.01). Attachment anxiety has a positive correlation with envy (r=0.645, p<0.01), depression (r=0.306, p<0.01) and negative correlation with Psychological well-being (r=-0.456, p<0.01).

Table 1. Sociodemographic characteristics of the participants (N=349)

Characteristics	Category	N	(%), M(SD)
Sex	Man	155	44.4
Sex	Women	194	55.6
Age			40.16 (10.66)
	clerical work	79	22.6
	sales	21	6
Job	self-business	25	7.2
	professional	75	21.5
	others	149	42.7
	Under High school	85	24.3
Education	College	240	68.7
	Graduate School	24	7

Table 2. Correlation among Related Variables

S. No.		1	2	3	4	5	
1	Attachment avoidance	1					
2	Attachment anxiety	0.285**	1				
3	Envy	0.367**	0.645**	1			
4	BDI	0.416**	0.306**	0.386**	1		
5	PWB	-0.565**	-0.456**	-0.407**	-0.499**	1	
	Mean	3.71	2.86	18.68	8.91	78.81	
	SD	0.82	0.96	7.12	8.34	11.83	
	а	0.90	0.87	0.81	0.90	0.88	
*p<0.05, **p<0.01							

Mediating Effect of Dispositional Envy

To test for a mediation effect of envy on the relationships between attachment anxiety and psychological well-being, a series of three regressions were conducted. First, envy was regressed on attachment anxiety (β=0.64, p<0.001). Second, psychological well-being regressed on attachment anxiety (β =-0.45, p<0.001). In the third equation, psychological well-being was simultaneously regressed on both attachment anxiety (β=-0.33, p<0.001), and envy $(\beta=-0.19, p<0.001)$. As shown in Table 3, the beta weight dropped from -0.45 to -0.33 when envy was added into the equation. The Sobel test showed that envy partially mediated the relationship between attachment anxiety and psychological well-being (z=-7.38, p<0.001).

To test for a mediation effect of envy on the relationships between attachment anxiety and depression, a series of three regressions were conducted. First, envy was regressed on attachment anxiety (β =0.64, p<0.001). Second, depression regressed on attachment anxiety ($\beta = 0.30$, p<0.001). In the third equation, depression was simultaneously regressed on both attachment anxiety ($\beta = 0.09$, ns) and envy ($\beta = 0.32$, p<0.001). As shown in Table 4, the beta weight when attachment anxiety was regressed alone on depression was 0.30. But the beta weight of attachment anxiety found to be non-significant when envy was added into the equation. The Sobel test showed that envy totally mediated the relationship between attachment anxiety and depression (z=6.98, p<0.001).

Table 3.Envy as a mediator in the relationship between attachment anxiety and PWB

Step		В	β	Se	R ²	F	
1	Attachment anxiety → envy	4.78	0.64	0.30	0.41	247.38***	
2	Attachment anxiety → PWB	-5.61	-0.45	0.58	0.20	90.86***	
3	Attachment anxiety → PWB	-4.07	-0.33	0.76	0.22	51.45***	
	$Envy \rightarrow PWB$	-0.32	-0.19	0.10			
N=349, *p<0.05, **p<0.01, ***p<0.001							

Table 4.Envy as a mediator in the relationship between attachment anxiety and BDI

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Step		В	β	Se	R ²	F	
1	Attachment anxiety → envy	4.78	0.64	0.30	0.41	247.38***	
2	Attachment anxiety → BDI	2.65	0.30	0.44	0.15	35.81***	
3	Attachment anxiety → BDI	0.84	0.09	0.56	0.15	31.63***	
	$Envy \to BDI$	0.3	0.32	0.07			
N=349, *p<0.05, **p<0.01, ***p<0.001							

Table 5.
Envy as a mediator in the relationship between attachment avoidance and PWB

Step		В	β	Se	R ²	F
1	Attachment avoidance → envy	3.16	0.36	0.43	0.13	54.01***
2	Attachment avoidance → PWB	-8.08	-0.57	0.63	0.31	162.89***
3	Attachment avoidance → PWB	-6.87	-0.48	0.65	0.36	99.56***
	$Envy \rightarrow PWB$	-0.38	-0.23	0.07		
N=349, *p<0.05, **p<0.01, ***p<0.001						

Table 6.Envy as a mediator in the relationship between attachment anxiety and BDI

Step		В	β	Se	R ²	F
1	Attachment avoidance → envy	3.16	0.36	0.43	0.13	54.01***
2	Attachment avoidance → BDI	4.19	0.41	0.49	0.17	72.70***
3	Attachment avoidance → BDI	3.2	0.31	0.50	0.23	53.48***
	$Envy \to BDI$	0.31	0.27	0.05		
N=349, *p<0.05, **p<0.01, ***p<0.001						

To test for a mediation effect of envy on the relationships between attachment avoidance and psychological well-being, a series of three regressions were conducted. First, envy was regressed on attachment avoidance (β =0.36, p<0.001). Second, psychological well-being regressed on attachment avoidance (β =0.57, p<0.001). In the third equation, psychological well-being was simultaneously regressed on both attachment avoidance (β =0.48, p<0.001) and envy (β =-0.23, p<0.001). As shown in Table 5, the beta weight of attachment avoidance was dropped from

-0.57 to -0.48 when envy was added into the equation. The Sobel test showed that envy partially mediated the relationship between attachment avoidance and psychological well-being (z=-5.51, p<0.001).

To test for a mediation effect of envy on the relationships between attachment avoidance and depression, a series of three regressions were conducted. First, envy was regressed on attachment avoidance (β =0.36, p<0.001). Second, depression regressed on attachment avoidance (β =0.41, p<0.001). In the third equation, depression was simultaneously regressed on both attachment avoidance (β =0.31, p<0.001) and envy (β =0.27, p<0.001). As shown in Table 6, the beta weight of attachment avoidance was dropped from 0.41 to 0.31 when envy was added into the equation. The Sobel test showed that envy partially mediated the relationship between attachment avoidance and psychological well-being (z=6.65, p<0.001).

DISCUSSION

This study provides evidence that the negative relation between attachment insecurity and psychological health is, in part mediated by envy. A correlation analysis showed that attachment instability, such as anxiety attachment and avoidance attachment, was related to depression and psychological well-being. This is consistent with previous research in which individuals who have anxiety attachment and avoidance attachment have strained and unreliable relationships, dysfunctional attitudes and a rigid view of the world and themselves (Baumel & Berant, 2015). Thus, the two groups are more vulnerable to emotional distress than those with stable attachment (Burnette, Davis, Green, Worthington, & Bradfield, 2009).

In addition, a correlational analysis showed that attachment instability had a positive correlation with envy. The correlation coefficient between anxiety attachment and envy was larger than that between avoidance attachment and envy. This is consistent with previous studies in which researchers reported that anxiously attached individuals are apt to access negative self-perception (Bartholomew, 1990; Bartholomew & Horowitz, 1991) and tend to have increased distress (Mikulincer & Shaver, 2003, 2007) in upward social comparison situation. On the other hand, avoidantly attached individuals tend to deny attachment needs and to suppress painful emotion and have mild feelings of envy in deficiency-arousing situations (Baumel & Berant, 2015). Envy was also significantly associated with psychological well-being and depressive feeling. Previous studies regarding the relationship between dispositional envy and mental health outcomes showed that dispositional envy was correlated negatively with self-esteem (Smith, 1991; Smith et al., 1994) and positively with depression and anxiety (Gold, 1996).

Consistent with the research hypothesis, the present study found that envy was a significant factor mediating the relationship between attachment instability and psychological health. Specifically, attachment instability (Attachment anxiety and attachment avoidance) had a positive predicting effect on envy, which, in turn, predicted lower psychological well-being and increased depression. This finding is also consistent with previous studies indicating envy as a psychological mechanism that may link

attachment instability and poor psychological adaptation (Baumel & Berant, 2015; Mujcic, & Oswald, 2018).

There are many studies on simple linear relationships between attachment insecurity and envy, envy and decreased well-being and attachment insecurity and psychological health. Few studies have examined them all together. However, this study found further evidence of a mediating pathway of envy in a sample of Korean adults. Attachment instability has a direct effect on psychological health, but an indirect effect on mental health through envy can be a basic mechanism in the relationship between attachment instability and emotional well-being.

Until now, envy has been studied mostly in social comparative situations, but malicious envy due to upward comparison of situation with others on the Internet is becoming a subject of research so that the term "Facebook envy" has recently emerged (Tandoc et al., 2015). Though not everyone who feels envy shows depression or reduction of well-being, attachment issues can cause malicious envy and pose a threat to psychological health.

Based on these results, limitations of the study and implications for further research are as follows. First, the research materials used in this study were obtained using self-report questionnaires, so there may be a response bias due to social desirability. Second, this study was a cross-sectional study and focused only on the negative aspects of malicious envy. It is necessary to study how envy will change from a long-term perspective. We suspect that malicious envy will decrease with age, so it will be necessary to examine whether envy is a positive motivation for individuals via long-term research. There is also a need to examine sex differences in malicious envy. Previous research (Ding et al., 2017) found that the mediating effect of envy on mental health was more severe for women than for men. In non-Western societies with a high level of interdependent self-concept, individuals' subjective well-being is closely associated with harmony with others. Therefore, feeling envy can be more problematic for women than for men. Because women are more concerned about the quality of relationships than men (Rose & Rudolph, 2006), envy can have a more significant impact on relationships and self-concept and may further reduce subjective well-being. Therefore, it will be necessary to examine the moderating effect of gender.

Studies have shown that malicious envy is related to narcissism (Lange, Crusius & Hagemeyer, 2016), hostility toward the envied person (van de Ven et al., 2009), fear of failure (Lange & Crusius, 2015) and self-esteem instability (Vrabel, Hill, & Southard, 2018). Although benign envy motivates individuals to overcome their inferiority, individuals with low levels of self-esteem are more apt to make upward social comparisons and are vulnerable to discouraging, anxious and depressed feelings (Cohen-Charash, 2009; Cohen-Charash & Mueller, 2007). In recent years, selfesteem instability has been studied under the concept that selfesteem is not a fixed concept but fluctuates over time. State selfesteem fluctuates back and forth in the short term. Therefore, it will be necessary to examine a more comprehensive causal model including these key factors contributing to structural relationships of the variables.

CONCLUSION

Present study supports the understanding of the relationships among attachment instability, envy and psychological health in adults. The results of this study suggest that envy partially mediates

the relationship between attachment instability and psychological health, highlighting the need to focus on individual traits such as envy and adult attachment instability to prevent emotional distress in deficiency-arousing situations. Attachment begins in infancy and changes throughout life. According to the developmental point of view, it is necessary to examine what role the attachment experience plays in the situation that triggers the individual's deficiency and envy from infancy to adulthood.

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