

Defense style predicts subjective well-being in a non-clinical sample

Savunma mekanizması klinik olmayan örneklemede öznel iyilik halini betimler

Jennifer Lyke¹

Abstract

A wealth of literature has established that psychotherapeutic and psychiatric treatment corresponds to increased use of mature defense mechanisms and decreased use of immature defense mechanisms in clinical samples, but little research has investigated correlates of defense style in untreated populations. In addition, almost no literature has established the link between use of more mature defense mechanisms and positive aspects of life experience in non-clinical populations. This investigation tested the hypotheses that 1) defense style (mature, neurotic, immature) would significantly predict happiness and satisfaction with life in a non-clinical sample, and 2) an interaction between mature and immature defense styles would affect both happiness and life satisfaction. Participants ($N = 173$) were community members who completed three self-report instruments. Two hierarchical multiple regressions were performed to investigate whether life satisfaction or happiness could be significantly predicted by any of the defense styles, or interactions between any two of the defense styles after controlling for age and gender. Results indicated that mature, neurotic, and immature defense styles and gender were each significantly associated with happiness. However, only mature and immature defense styles were predictive of life satisfaction. No interactions were significant. Implications for future research are discussed.

Keywords: Defense Style, subjective well-being, happiness, life satisfaction

Özet

Birçok yazın psikoterapötik ve psikiyatrik tedavinin klinik örneklerde gelişmiş savunma mekanizmalarının artışı ve gelişmemiş savunma mekanizmalarının azalması anlamına geldiğini ortaya koymuş olmakla birlikte, tedavi görmemiş bireylerin baş etme biçimleriyle ilgili değişkenler çok az sayıda araştırma tarafından incelenmiştir. Ayrıca hemen hemen hiç bir yazın daha gelişmiş savunma mekanizmaları ve yaşam tecrübelerinin pozitif yönlerini klinik olmayan bireylerde incelememiştir. Bu çalışma 1) savunma stili (gelişmiş, nevroitik, gelişmemiş) mutluluk ve yaşam doyumunu klinik olmayan popülasyonda istatistiksel olarak anlamlı bir şekilde betimler ve 2) gelişmiş ve gelişmemiş savunma stilleri arasındaki ilişki hem mutluluk hem de yaşam doyumunu etkiler hipotezlerini test etmiştir. Genel toplumdan olan katılımcılar ($N = 173$) üç ölçeği doldurmuştur. Herhangi bir savunma stili ya da herhangi iki savunma stilinin birbiriyle ilişkisinin mutluluk ve yaşam doyumunu anlamlı bir şekilde betimleyip betimlemeyeceğini incelemek için iki ayrı hiyerarşik regresyon uygulanmıştır. Sonuçlar gelişmiş, nevroitik ve gelişmemiş savunma stillerinin her birinin mutluluk ile ilişkili olduğunu göstermiştir. Ancak sadece gelişmiş ve gelişmemiş savunma stilleri yaşam doyumunun yordayıcısı olarak bulunmuştur. Hiçbir etkileşim anlamlı bulunmamıştır. Gelecek araştırma önerileri tartışılmıştır.

Anahtar Kelimeler: Savunma stili, öznel iyi oluş, mutluluk, yaşam doyumunu

¹ Stockton University Galloway, New Jersey, US. E-mail: jennifer.lyke@stockton.edu

Introduction

Traditional psychotherapeutic theories emphasize development of mature coping methods to replace immature or neurotic defense mechanisms (Freud, 1936) with the assumption that mature defense mechanisms are more pro-social and reality-based than either neurotic or immature defenses. A wealth of literature has established that psychotherapeutic and psychiatric treatment corresponds to increased use of mature defense mechanisms and decreased use of immature defense mechanisms in clinical samples (e.g., Bond & Perry, 2004; Johansen et al., 2011; Perry & Bond, 2012; Schauenburg et al., 2007). However, little research has investigated correlates of defense style in untreated populations. In particular, although use of more mature defense mechanisms is theoretically expected to contribute to positive aspects of life experience in non-clinical populations, almost no research to date has established this connection.

Subjective Well-being

Subjective well-being is a broad construct meant to encompass all aspects of personal experience that contribute to feelings of well-being. Subjective well-being includes people's emotional and cognitive evaluations of their lives (Diener, Oishi & Lucas, 2003). Many studies have already addressed the relationships between elements of subjective well-being and personality factors (e.g., Steel, Schmidt & Shultz, 2008), but only two studies to date have investigated the relationships among defense mechanisms and aspects of subjective well-being. Specifically, Malone et al. (2013) found that adaptive defense mechanisms in midlife predict better physical health later in life, and Larsen et al. (2010) found an association between adaptive defense style and perception of a satisfactory work environment.

For the purpose of this study, two components of subjective well-being, happiness and life satisfaction, were chosen as outcomes. Happiness is an emotional aspect of subjective well-being that depends on genetics, circumstances, and behaviors (Lyubomirsky, Sheldon & Schkade, 2005). Satisfaction with life is another aspect of subjective well-being that is often associated with happiness but is also somewhat distinct because it encompasses an individual's evaluative judgment of all aspects of his or her life. Thus, happiness and life satisfaction together capture both emotional and cognitive aspects of subjective well-being.

A recent meta-analysis investigated the relationship between life events and the cognitive and affective aspects of subjective well-being, with the conclusion that the effects of the events are not a function of the desirability of the events (Luhmann et al., 2012). It is possible, then, that defense style might be a moderating or mediating factor in the relationship between life events and subjective well-being. Thus, clarifying the relationship among defense styles and aspects of subjective well-being could be an important step in the process of understanding individual differences in response to life stressors.

Defense Style

Vaillant (1971) described a hierarchy of defenses based on their adaptive function and documented that use of mature defenses predicts better physical and mental health over the long term. This conceptualization has been operationalized by the development of the Defense Style Questionnaire (Andrews, Singh & Bond, 1993), which measures twenty defense mechanisms through self-report and groups them into mature, neurotic, and immature categories. Although defense mechanisms operate

primarily unconsciously, individuals are presumably sufficiently aware of their thoughts and behavior over time that they are able to accurately report on their internal processes.

Several studies have established that defense style relates directly to psychiatric symptomatology and treatment response. In general, low levels of mature defense style and high levels of neurotic and immature defense style characterize psychiatric populations compared to healthy controls (Bond, 2004; Calati, 2010; Perry, 2001; van Wijk-Herbrink, Andrea & Verheul, 2011). Similarly, mature defense style predicts a positive response to psychiatric and psychotherapeutic treatment (Kronstrom et al., 2009; Schauenburg et al., 2007). Other investigations have found similar relationships between defense style and psychiatric symptomatology in non-clinical populations (Carvalho et al., 2013; Watson, 2002).

Age and Gender

Age and gender also correlate with defense style. Individuals' use of particular defenses changes over time (Cramer, 2012), and younger adults score higher on the use of immature defense mechanisms than older adults (Segal, Coolidge & Mizuno, 2007). Results related to gender differences in defensive functioning are mixed. In general, several researchers have found differences in the particular defenses used by men and women (Cramer, 1991; Drapeau et al., 2011; Watson & Sinha, 1998), although there appears to be no difference in overall defensive functioning (Bullit & Farber, 2002; Petraglia et al., 2009; Van et al.; 2009).

In addition, well-being is associated with both age and gender. For example, Galmbos et al. (2013) found that happiness increases from early adulthood into mid-life and Gana et al. (2013) showed that life satisfaction increases with age in older adults. However, well-being also changes differently for men and women during adulthood (Gestsdottir et al., 2015; Schafer et al., 2013), so both age and gender are important considerations in determining the relationship between defense styles and well-being.

Due to the lack of research relating defense style to positive outcomes in non-clinical populations, the present study was designed to investigate the relationships among defense styles as predictors of subjective well-being in a community sample after controlling for age and gender. In accordance with previous research using clinical samples, it was expected that mature defense style would be significantly positively predictive of both happiness and life satisfaction and immature defense style would be significantly negatively predictive of happiness and life satisfaction. In addition, since various combinations of immature, neurotic, and mature defense styles may have unique effects, it was also expected that there would be interactions among the defense styles that would significantly relate to participants' subjective well-being. In particular, because low levels of mature defense styles and high levels of immature defense styles are associated with psychiatric symptoms (Bond, 2004; Calati, 2010; Perry, 2001; van Wijk-Herbrink, Andrea & Verheul, 2011), the combination of high levels of mature defenses with low levels of immature defenses was expected to be associated with significantly higher subjective well-being than the combination of low levels of mature defenses and high levels of immature defenses.

Method

Participants

Participants were a convenience sample of 173 community members selected through snowball sampling. They did not receive any financial compensation for participating. They provided no

identifying information, so responses were both anonymous and confidential. The sample was 33% male and 67% female. The ages of participants ranged from 18 to 66 ($M = 29.37$, $SD = 12.67$). The participants were 75% White, 8% African-American, 10% Hispanic, and 6% Asian, with 1% identifying as Other. Thirteen percent of the sample had a high school education or less, 59.5% had some college, 21.4% had a bachelor's degree, and 5.8% had a doctoral degree.

Measures

The Defensive Style Questionnaire-40 (DSQ-40), Andrews, Singh & Bond, 1993) is a self-report instrument designed to be consistent with the DSM-III-R (American Psychiatric Association, 1987) glossary of defense mechanisms. Participants rate statements such as "I am able to laugh at myself pretty easily" on a Likert scale (1 = strongly disagree to 9 = strongly agree). The statements correspond to twenty defense mechanisms that are classified as mature (humor, suppression, sublimation, anticipation), neurotic (undoing, pseudo-altruism, idealization, reaction formation), or immature (projection, passive aggression, acting out, isolation, devaluation, autistic fantasy, denial, displacement, dissociation, splitting, rationalization, somatization). Andrews et al. (1993) demonstrated that the DSQ-40 has adequate construct validity by successfully discriminating between several different clinical populations. Watson and Sinha (1998) found an average item-scale correlation of $r = .78$ for the twenty scales. Andrews et al. (1993) report test-retest correlations with an average of $r = .66$ for the twenty scales over a four-week time period. Reliability for this instrument with this sample was good (Cronbach's alpha = .80).

The Subjective Happiness Scale (SHS), Lyubomirsky & Lepper, 1999) has only four seven-point Likert-scale items related to participants' perceptions of their own level of happiness. An example item asks participants to complete the statement, "In general, I consider myself" where responses vary from "not a very happy person" to "a very happy person". This instrument demonstrates adequate reliability (Cronbach's alpha = 0.86) and validity (Lyubomirsky et al., 1999). Reliability for this instrument with this sample was good (Cronbach's alpha = .84).

The Satisfaction with Life Scale (SWLS); Diener, Emmons, Larsen, & Griffin, 1985) has five seven-point (strongly disagree to strongly agree) Likert-scale items measuring participants' reports of their own satisfaction with their lives, such as "In most ways my life is close to my ideal". Factor analysis of the SWLS items suggests that the instrument measures a single dimension of life satisfaction (Diener et al., 1985). Test-retest reliability, interitem reliability ($r = .61$ to $.81$), concurrent validity, content validity, discriminant validity, and construct validity have also been demonstrated for this instrument (Diener et al., 1985). Reliability for this instrument in this sample was good (Cronbach's alpha = .90).

Procedure and Data analysis

Participants responded to a demographic questionnaire and three self-report psychometric measures through an online survey link. Data was screened to verify the assumptions of normality, linearity and homoscedasticity. These assumptions were met. Two hierarchical multiple regressions were then conducted to predict SWLS and SHS scores from participants' scores on mature, neurotic, and immature defense style after controlling for age and gender. In addition, defense style variables were centered on their means and interaction terms were included for each pair of defense styles as predictors in the second stage of the hierarchical regression.

Results

The data were screened for missing values and violations of the assumptions of the multivariate analysis. Descriptive statistics are presented in Table 1.

Table 1. Means and standard deviations for variables

Measure	Minimum	Maximum	<i>M</i>	<i>SD</i>
SWLS	5	35	22.60	7.10
SHS	10	28	20.28	4.65
Mature Defense Style	2.13	8.25	5.64	1.14
Neurotic Defense Style	1.00	8.00	4.89	1.27
Immature Defense Style	1.88	6.83	3.98	0.97

SWLS = Satisfaction with Life Scale; SHS = Subjective Happiness Scale

Females reported significantly more neurotic defense style than males ($t(171) = 3.90, p < .001$), although there were no other gender differences in defense styles or subjective well-being. Intercorrelations of the quantitative variables are presented in Table 2.

Table 2. Bivariate correlations between quantitative variables ($N = 173$).

	Mature	Neurotic	Immature	SWLS	SHS	Age
Mature	1					
Neurotic	.29**	1				
Immature	-.05	.44**	1			
SWLS	.35**	.06	-.22*	1		
SHS	.31**	.11	-.28**	.74**	1	
Age	.05	-.09	-.25*	.01	.07	1

SWLS = Satisfaction with Life Scale; SHS = Subjective Happiness Scale

* Correlation is significant at the .01 level (two-tailed).

** Correlation is significant at the .001 level (two-tailed).

Regressions

Two hierarchical multiple regressions were performed to investigate whether SWLS or SHS could be significantly predicted by any of the defense styles, or interactions between any two of the defense styles after controlling for age and gender. Results of the first regression indicated that the combination of gender and age did not significantly predict SWLS, $R^2 = .002, F(2, 170) = .154, p > .05$. The second stage of the model indicated that adding defense styles and interactions among defense styles explained an additional 18.3% of the variance in SWLS and this change in R^2 was

significant, $F(6, 164) = 6.132, p < .001$. However, only mature defense style and immature defense style were significantly predictive of SWLS. Mature defense style was positively correlated with SWLS, whereas immature defense style was negatively correlated with SWLS. Coefficients of predictors for this model are presented in Table 3.

Table 3. Coefficients for model variables predicting SWLS.

Variable	Model 1			Model 2		
	B	SEB	β	B	SEB	β
Age	.002	.043	.004	-.004	.043	-.079
Gender	.629	1.154	.042	1.922	1.179	.128
Mature				1.847	.469	.297***
Neurotic				.814	.507	.146
Immature				-2.210	.643	-.303**
Mature x Neurotic				.066	.370	.014
Neurotic x Immature				-.131	.380	-.026
Mature x Immature				.056	.478	.010

* $p < .05$ ** $p < .01$ *** $p < .001$

Results from the first stage of the second regression also indicated that the combination of gender and age did not significantly predict SHS, $R^2 = .007, F(2, 170) = .604, p > .05$. The second stage of the model indicated that adding defense styles and interactions among defense styles explained an additional 22.3% of the variance in SHS and this change in R^2 was significant, $F(6, 164) = 7.895, p < .001$. In this model, mature, neurotic, and immature defense styles and gender were all significantly predictive of SHS. Mature and neurotic defense styles were positively correlated with SHS, and immature defense style was negatively correlated with SHS. In addition, being male was associated with higher SHS. Coefficients of predictors for this model are presented in Table 4.

Table 4. Coefficients for model variables predicting SHS

Variable	Model 1			Model 2		
	B	SEB	β	B	SEB	β
Age	.024	.028	.066	-.016	.027	-.044
Gender	.455	.753	.046	1.819	.750	.185*
Mature				.916	.299	.225**
Neurotic				1.033	.322	.282**
Immature				-2.040	.410	-.427***
Mature x Neurotic				.230	.236	.073
Neurotic x Immature				.227	.242	.068
Mature x Immature				-.138	.304	-.036

* $p < .05$ ** $p < .01$ *** $p < .001$

Discussion

Results revealed that each defense style was a significant predictor of subjective well-being, however there were no significant interactions. As expected on the basis of previous work with clinical populations, both life satisfaction and happiness were positively correlated with mature defense style. Due to the cross-sectional design employed, these findings cannot discriminate among multiple causal possibilities. First, a mature defense style may somehow facilitate subjective well-being, perhaps through establishing and maintaining positive social supports. Second, people who are happy and satisfied with their lives may find it easier to utilize more mature defense styles, perhaps because they experience less intrapsychic conflict. Third, a cyclical causality may exist such that mature defenses facilitate subjective well-being and vice versa. Finally, the correlation may be due to a third variable, such as biological or developmental factors that contribute to both defense style and subjective well-being simultaneously.

The most unexpected finding of this study was that neurotic defense style was not significantly predictive of life satisfaction, however it was positively correlated with subjective happiness. Neuroticism is a personality trait associated with anxiety, depression, and affective lability. It has repeatedly been found to be negatively associated with life satisfaction (Jovanovic, 2011; Steel, Schmidt & Shultz, 2008). However, neuroticism is distinct from a neurotic defense style, defined in this study as the use of the specific defense mechanisms of undoing, pseudo-altruism, idealization, and reaction formation. It may be that these particular defense mechanisms are especially effective for producing emotional effects, such as the perception of subjective happiness, but they are ineffective for producing cognitive effects, such as might be necessary to increase life satisfaction. In addition, neurotic defense style was significantly positively correlated with both mature and immature defense styles, which may imply that these constructs are not as independent as they intuitively seem to be.

Immature defense style was significantly negatively correlated with both aspects of subjective well-being. Of the three defense styles, immature defense style appears to have the strongest relationship to subjective well-being. Consistent with research with clinical populations (Bond, 2004; Calati, 2010; Perry, 2001; van Wijk-Herbrink, Andrea & Verheul, 2011), immature defense style was negatively correlated with both life satisfaction and self-rated happiness in this sample. Again, the cross-sectional design allows for multiple interpretations of the findings. One possibility is that immature defense style reduces life satisfaction and happiness directly, perhaps by impairing social relationships. Another possibility is that the stress of an unhappy or unsatisfying life causes regression toward more immature defense mechanisms. Defense style and subjective well-being may also be mutually influential, or some other factor, such as developmental challenges, may contribute to both. Future research is necessary to discriminate among these possibilities.

Finally, another important aspect of the results was that none of the interactions in either analysis was significant and effect sizes for the significant predictors were relatively small. These findings imply that defense styles relate to subjective well-being relatively independently and that the relationships between defense style and subjective well-being may be mediated or moderated by other personality or situational variables, such as extroversion or socioeconomic status.

Limitations and Future Research

The main limitation of this study is that it relies on participants' self-report of their defense styles and subjective well-being. However, some investigators have found significant correlations between self-reported and observer-rated defense style (Van et al., 2009), which contributes to the validity of self-report measures for assessing defense style. In addition, as mentioned above, the cross-sectional

design prohibits causal conclusions. Finally, there were relatively few participants in this study so future research could validate these findings with replication.

Ideally, future research could complement this work by investigating these relationships with a longitudinal design, which would help to illuminate causal influences. Future research could also control for prior therapeutic treatment, which would increase the power of the analysis to determine the relationship among defense style and subjective well-being independent of therapeutic influence.

Replication will be necessary since this is the first study of the relationship among defense styles and positive outcomes in a non-clinical population. Theory and research thus far have established that defense styles relate to psychiatric symptoms and therapeutic change, yet how defense styles operate in healthy groups is largely uninvestigated. If therapeutic interventions increase mature defensive functioning and reduce immature defensive functioning, this might be one mechanism by which therapeutic interventions can increase subjective well-being regardless of symptomatology. Thus, therapeutic interventions originally designed to alleviate symptoms in clinical populations may also be effective for increasing subjective well-being in healthy individuals by improving defensive functioning.

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