Examining how Dimensional Maladaptive Personality Traits can influence Perceived Social Support in a non-clinical young adult sample

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Abstract

The Alternative Model of Personality Disorders (AMPD) operationally defines Personality Disorders (PDs) as enduring and maladaptive behavioural patterns fuelled by 5 dimensional traits: Negative Affectivity, Disinhibition, Detachment, Psychoticism and Antagonism, Research suggests that maladaptive traits irrespective of a (PD) diagnosis can be responsible for the maintenance and development of severe interpersonal and emotional dysfunction. Although perceived social support (PSS) has been systematically and negatively linked to stress and overall psychopathology the are no studies addressing its relationship with AMPD'S criterion B. The present cross-sectional study by recruiting a nonclinical sample of young adults (N= 65) aimed to examine the relationship between maladaptive personality traits and PSS. Consistent with our hypothesis Negative Affectivity and Disinhibition predicted lower scores of PSS. Even though our findings cannot be generalized to clinical settings, we propose that subclinical manifestations of maladaptive traits should not be underestimated. More specifically, future research expanding these conclusions should aim to to contextualize symptoms by considering psychopathology as a dynamic concept occurring in complex social contexts and encourage mental health policies to psychosocially intervene in a preventive manner.

Key words: Maladaptive Traits; AMPD; Social Support; Personality Disorders

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Personality disorders (PDs) can be briefly delineated as enduring and unstable maladaptive patterns of subjective experience and behavior concerning at least two of the following domains: emotional, cognitive, interpersonal and impulse regulation (Gawda & Czubak, 2017). The most researched dimensional model of maladaptive personality as described in the DSM-5 is commonly referred to as the Alternative Model of Personality Disorders (AMPD). The AMPD proposes a hybrid model of operationally defining and clinically approaching/diagnosing PDs. It enmeshes two distinct theoretical backgrounds: the first highlights the significance of interpersonal functioning by drawing connections to object relations and attachment theory (Pincus, 2018) and the second emphasizes broader maladaptive traits showing stability and consistency across time and situations. The latter traits (criterion B) are meant to distinguish PDs based on facets of functioning that transcend the spectrum of personality pathology. The former, better known as criterion A, aims to offer an overall evaluation regarding one's levels of personality functioning (LPF), by mainly addressing intra and interpersonal impairments that are commonly observed among PDs, which include domains of self-identity, self-direction as well as intimacy and empathy (Meehan, Siefert, Sexton & Huprich, 2019). On the other hand, criterion B primarily assesses dimensions of pathological personality traits reflected on 5 main trait domains, including: Negative Affectivity, Detachment, Disinhibition, Antagonism and Psychoticism (Krueger et al., 2012). Personality pathology is commonly taxonomized as ten diagnostic entities banded together in 3 clusters based on their common features. According to the cluster-based classification system, cluster A is known as odd or eccentric, cluster B as dramatic, emotional or erratic, and cluster C as anxious or fearful (APA, 2013).

Only a few decades ago, diagnoses of personality disorders were often challenged due to their questionable clinical utility and relevance (Winsper et al., 2019). PDs are currently considered valid psychopathological phenomena, associated with premature mortality, morbidity and substantial impairments in physical and psychosocial functioning (Quirk et al., 2015). Empirical evidence underlines the significance of the societal burden directly linked with PD pathology. Research suggests that PDs often predict an overall impaired capacity to work, which may in turn generate substantial ancillary expenses caused by the increased rates of absenteeism from the workplace (Barrett & Byford, 2012). Given the above, it is no surprise that PDs are positively correlated with high direct and indirect healthcare costs. A

study aiming to calculate the overall societal cost of BPD in the Netherlands (the most prevalent PD in clinical settings) estimated that cumulative yearly expenses for an average BPD patient consisted of almost 17.000€ (Asselt, Dirksen, Arntz & Severens, 2007).

A significant body of population-based and clinical research suggests that PDs are not only linked to maladaptive functioning and enduring interpersonal and self-directed impairments (Quirk et al., 2015), but they have also been associated with weak outcomes among various psychiatric comorbidities (Newton, Tyrer & Jhonson, 2006; Quirk et al., 2015; Winsper et al., 2019). For instance, evidence shows that almost 9 out of 10 individuals diagnosed with borderline personality disorder (BPD) can qualify for at least one Axis I disorder, while 74% acquire a diagnosis of an additional PD (Grant et al., 2008; Moran et al., 2016). Systematic reviews highlight an increased risk of substance abuse, self-harm and suicidal tendencies, as well as chronic interpersonal dysfunction among PD patients (Volkert, Gablonski & Rabung, 2018; Oldham, 2006). Individuals with PDs tend to report less engagement and poor overall adherence to interventions (Gawda & Czubak, 2017). In fact, Tyrer, Reed and Crawford (2015), have proposed that interpersonal dysfunction should be considered as the main culprit responsible for poor treatment outcomes.

Interpersonal dysfunction is especially pronounced in PDs when compared to other disorders like addiction, bipolar mood disorder, anxiety and major depression. This could explain why PDs have yet to see the same progress in diagnosis and treatment that other disorders have. Further, this offers insight into a possible reason why disability directly linked to PDs has not declined at the same rate as Axis I disorders have (Whiteford et al., 2013).

Even though research has systematically showcased the overburdening consequences of PDs, epidemiological data is still lacking suitable attention (Volkert et al. 2018). Recent reviews of population-based epidemiological studies confirm a high prevalence of PDs across studies (Moran et al., 2016). Projections of prevalence vary across populations (e.g. Norway: 13.4%, US.: 9.1-21.5%, UK: 4.1%; Roningstam et al., 2018), while cross-national assessments report an overall 6.1% prevalence among the general population (Gawda & Czubak, 2017). More cross-sectional studies have supported this epidemiological heterogeneity of PDs, indicating percentages ranging from 4% to 15% between Europe and North America (Huang et al., 2009). Recent meta-analytic data indicated a 12.6% prevalence among the general adult population of western countries, rates that appear comparable to common physiological conditions like respiratory diseases and lower back pain (Volkert et al., 2018). Moreover, Cluster A PDs were the most prevalent in western populations (7.23%),

with obsessive compulsive PDs the highest (OCPD; 4.32%) and Dependent PD the least reported.

Personality Disorders across different cultures

At the same time, recent evidence highlights an under-diagnosis of PDs especially among low- and middle-income countries (LMIC; 80% of the global population) where insufficient public health resources prioritize services targeting more severe and debilitating disorders (i.e. psychosis; Winsper et al., 2019). Even though LMICs are making efforts to seriously consider mental health as a major public health priority, there is still a profound absence of policy-informing initiatives addressing PDs by the Mental Health Gap Action Program (WHO;) and the Global Burden of Diseases Project (Quirk et al.,2015). It is unsurprising that there is a substantial lack of scientific and empirical insight that would further prompt health policies and initiatives to target PDs in LMICs. Underestimating the probable debilitating outcomes accompanying many PDs could hinder attempts to tackle the burden of disability on a global scale.

Documented discrepancies in prevalence of PDs among various populations can be attributed to sampling methods, psychometric tools employed, as well as possible social and cultural variables (Tyrer et al., 2010). Mental health professionals and researchers have previously argued that certain PDs seem to suffer from a W.E.I.R.D. (Western, educated, industrialized, rich and democratic) bias and mainly reflect a western personality conceptualization while behavioral norms may vary significantly based on the given cultural context (Gawda & Czubak, 2017; Tyrer et al., 2010). Limited evidence regarding the moderating effect of social and cultural contexts on the diagnosis, etiology and treatment outcomes of PDs, emphasizes the need for further investigation.

A population-based study implementing a cross-cultural perspective highlighted significant differences in the prevalence of antisocial PD in Taiwan (0.2%) versus the USA (3%) (Calliess et al., 2007). However, it is unclear whether this variance can be attributed to an actual epidemiologic trend of the specific PD or other culture-specific factors. Similarly, Castaneda and Franco (1985) had found that Mediterranean's and Spaniard's are more susceptible to misdiagnoses of histrionic PD, since they may often appear more seductive, hyperemotional and dramatic than other population groups. This is in contrast to Eastern European and Middle Eastern cohorts, who may present as more mistrustful and unwilling to disclose anything private, characteristics that could be misattributed to cluster C PDs (Ziegenbein, Calliess, Sieberer, & Machleidt, 2008). Finally, western populations reporting

very low percentages of dependent PD may be attributed to inherent tendencies of individualistic cultures to glorify autonomy and self-reliance (Volkert et al., 2018).

In contrast to the above culture relativistic approach, there is substantial evidence arguing for the epidemiological relevance of PDs existing independently of culture and focusing rather on an evolutionary perspective in order to analyze them in different contexts (Buss, 2009). Through the latter prism, PDs can be studied as enduring evolutionary mechanisms occurring in response to environmental and social/cultural interactions. Based on this, personality traits reflect the ability and efficacy of an individual to utilize various strategies within complex social situations (Molina et al., 2009). Social interactions therefore can be seen as the main agents of change in personality divergence.

Social Support

Abiding to the scientific path cast by evolutionary theory, social relatedness is commonly identified as one of the most basic needs for survival (Darwin, 1903). In addition to this, Bowlby's conceptualization of attachment (1973) further supported the notion that social bonds are inherently vital to human development and well-being, while attachment security has been systematically linked with decreased overall anxiety and psychological distress levels, even following exposure to traumatic events (Shaver et al., 2016).

The subjective experience of perceiving the available psychological and material resources derived from one's social environment is known as social support. Research suggests that perceived social support (PSS) is intuitively correlated with resilience to stress while at the same time it is negatively correlated with overall psychopathology (Kavanagh et al., 2021). It is no surprise therefore that in some cases one's social environment can be a psychological burden. So far empirical evidence has focused on assessing the relationship between PD and life satisfaction or social functioning (Cramer, Torgersen & Kringlen, 2006; Hengartner et al., 2014).

As previously mentioned, interpersonal impairments are considered a core aspect of PDs and hence it is probable that they would be reflected on PSS measures. A recent study aimed at understanding how different PD clusters among women influence levels of PSS (Kavanagh et al., 2021). The results indicated that clusters B and C were associated with significantly lower levels of PSS, while cluster A was specifically associated with perceiving less social support from a significant other. We found no studies that have used criterion B of the AMPD model in order to assess the relationship of maladaptive personality and PSS. To our knowledge there is no relevant literature assessing the degree to which maladaptive personality traits may explain variability of PSS levels whatsoever. The present study aimed

to examine how PSS levels can be explained by scores of maladaptive personality traits among a non-clinical young adult population in the Netherlands and Greece. We expected that higher levels of maladaptive traits would be negatively associated with PSS (Hypothesis 1) and that higher levels of Negative Affectivity and Disinhibition traits would explain lower overall levels of PSS (Hypothesis 2). Conclusions endorsing the above relationships would help to further illustrate the general utility of AMPD and especially criterion B, while evidence consonant with our hypotheses would aid in proactively recognizing vulnerable populations and providing early interventions when needed.

Methods

Participants and Sampling

The present study collected data derived from samples of young adults (mainly students) residing in the Netherlands and Greece. Research suggests that young adult populations (college-age; 18-25) are considered an appropriate pool for examining dimensions of maladaptive personality since they tend to experience significant psychological distress during the developmental period of early adulthood (Stallman, 2010) In addition, Trull had found similar results, postulating that impaired personality dysfunction among non-clinical young adults was deemed as clinically debilitating (Trull, 1995).

Inclusion criteria for the current study included a minimum of 18 years and a good grasp of the English language. We conducted a priori computations using the G*Power statistical Analysis tool (3.1 version; Buchner, 2018) in order to estimate the required sample size for our hypotheses. Results proposed a minimum sample of 59 (Parameters: number of predictors= 5, effect size≥ .15, α=.05). Data were sequentially gathered over a period of 30 days through an online survey platform and the hyperlink was shared publicly amongst student social media groups (Facebook) as well as on Linkedin, ultimately yielding a sample size of 76 participants. 11 participants did not complete all relevant measures and were therefore excluded, producing a final subsample of 65. Age ranged from 19 to 40 with a mean age of 24.9. While most participants were female (*n*=44; 67.7%), the majority had completed a level of education equivalent to a Bachelor of Science (*n*=25; 38.5%). Participants were recruited implementing a web-based, non-probability and voluntary response sampling approach. More specifically Greek and Dutch community samples were approached through sharing the hyperlink of the survey on social media platforms (e.g. Facebook, Linkedin).

Design & Procedure

Aiming to understand perceived social support among young adults with maladaptive personality traits, we employed a non-experimental and cross-sectional study design. Upon receiving approval from the Faculty of Ethics Review Committee (ethics clearance number: 22-1174), the hyperlink of the Lime Survey was made public on social media platforms and we proceeded with data collection. All participants were provided with an information letter, briefing them regarding the voluntary and anonymous nature of their participation as well as their right to withdraw from the procedure at any given moment (see Appendix A). Once subjects opted to proceed and gave consent, they were asked to provide a few general demographic questions, followed by the Multidimensional Scale of Perceived Social Support and Personality Inventory for DSM-5 (Brief Form).

Instruments

1. *Demographics*

Participants were asked to provide demographic data regarding their place of residence, sex, age, highest completed level of education and whether they are students.

2. *Multidimensional Scale of Perceived Social Support (MSPSS) (*Zimet et al., 1988)

The MSPSS (see Appendix B) evaluated how participants subjectively experience the sufficiency of their social support. The scale particularly examines perception of social support from 3 distinct sources, namely, family (FA; e.g. "My family really tries to help me"), significant other (SO; e.g "I have a special person who is a real source of comfort to me") and friends (FR; e.g. "I have friends with whom I can share my joys and sorrows"). Each subscale consists of 4 items and items are scored along a 7-point Likert scale of 1 (very strongly disagree) to 7 (very strongly agree). Subscale scores range from 4 to 28 while total scores range from 12 to 84 with higher scores suggesting a higher level of perceived social support. The MSPSS has been used and assessed with diverse samples and settings. Previous studies have tested the scale's psychometric properties, reporting Cronbach α values varying from 0.86 to 0.90 for the subscales and 0.86 for the total scale (Bruwer et al., 2008). Comparably high internal consistency scores were found for the subscales (Significant Other α=.92; Family α=.91; Friends α=.90) and total scale (PSS total: α=.94) in this study.

3. *DSM-5 Brief Form PID-BF (see Appendix C) (*(Krueger et al., 2012)

The personality Inventory for DSM-5 Brief Form PID-BF (see Appendix C) was employed to assess potentially maladaptive personality traits of participants. More specifically, the scale draws from criterion B of the DSM-5 and examines maladaptive personality traits based on 5-dimensional personality domains, namely, Negative Affect (NA; e.g. "I get emotional easily, often for very little reason"), Antagonism (AN; e.g. "It's no big deal if I hurt other people's feelings"), Disinhibition (DI; e.g. "I feel like I act totally on impulse"), Psychoticism (PS; e.g. "My thoughts often don't make sense to others"), and Detachment (DT; e.g. "I don't like to get too close to people)". Participants completed 25 items (5 items for each domain) using a 4-point Likert scale varying from 0 (very false or often false) to 3 (very true or often true). Although the PID-5-BF version has not been used as widely as the short form (SF) or the original version, a substantial amount of literature confirms the scale's validity and reliability across diverse populations, while it's proven to be particularly effective in assessing dimensional maladaptive personality among non-clinical young adults (Anderson, Sellbom &

Salekin, 2016; Elhami & Ebrahimi, 2021). In the current study all subscales yielded satisfactory internal consistency rates, despite the small number of items per scale (5). Reliability statistics revealed: Disinhibition α=.85; Detachment α=.74; Psychoticism α=.73; Negative Affectivity α=.82; Antagonism α=.69 and α=.89 for the scale as a whole.

Data analysis

Demographics were analyzed using t-tests, one-way analyses of variance as well as correlational analyses in order to examine any existing relationships between age, gender, students versus non-students and highest level of completed education with variables that were considered essential to our research questions and hypotheses. A bivariate correlation was used to assess the relationship between PID and PSS (Hypothesis 1) whereas in order to see whether NA and DI could significantly predict variance in PSS scores (Hypothesis 2) a multiple hierarchical regression was employed.

Results

Preliminary Tests

Histograms, scatterplots combined with z values derived from skewness and kurtosis tests confirmed the normal distribution and heteroscedasticity of our data. An inspection of histograms suggested that the assumption of normality was not violated (see Figure 1&2). Consistent with this Shapiro Wilk tests proposed that PID $W(65)=.97$, $p=.158$ and PSS

W(65)=.96, *p*=.64, were normally distributed. In addition, an inspection of the scatterplot suggested that there was a linear relationship between PID and PSS levels, therefore confirming the assumption of homoscedasticity (see Figure 3).

Table 1

Frequency and Descriptive statistics for Demographic Variables

Variables	*n*	*%*	*M*	*SD*
Gender				
Female	*44*	*67.7*		
Male	*21*	*32.3*		
Student				
Yes	*41*	*63.1*		
No	*24*	*36.9*		
Education				
Secondary	*12*	*18.5*		
Vocational	*3*	*4.6*		
BASc	*9*	*13.8*		
BSc	*25*	*38.5*		
MSc	*15*	*23.1*		
PhD	*1*	*1.5*		
Age	*65*		*24.92*	*4.32*
Place of Residence				
Greece	*34*	*52.3*		
Netherlands	31	47.7		

Note. Education= Highest level of completed education; Secondary= Secondary school; Vocational= Vocational school; BASc= Bachelor of Applied Science; BSc= Bachelor of Science; PhD= Doctor of Philosophy

Hypothesis 1(PID would be negatively associated with PSS)

A Pearson correlation analysis suggested that there was a moderate, negative and significant correlation between PID and PSS scores, *r*=.51, *n*=65, *p*<.001.

More specifically, a two-way MANOVA was conducted to examine differences in perceived social support subscales (PSS) for students vs non-students and for gender. There were three dependent variables SO, FA, and FR. We first performed preliminary checks to examine normality, outliers, linearity, homogeneity of variance-covariance matrices and multicollinearity. Shapiro-Wilk test showed that all three dependent variables were normally distributed across groups, thereby confirming the assumption of univariate normality. Mahalanobis distance values were below the 16.27 critical value point indicating the existence of multivariate normality. Results suggested a significant main effect for students in relation to perceived social support F (3, 59) =5.40 p=.002, Wilks λ=.80, ηp^2 =.22 (see Table 2). When we implemented a Bonferroni-adjusted alpha of .016, a significant effect for

students vs non-students on SO levels was found ($F(1, 61)=15.68$, $p<.001$, $\eta p^2=.20$) and on FA $F(1, 61)=4.69$, $p=.034$, $\eta p^2=.07$. For SO non-students scored higher ($M=23.67$, $SD=2.48$) compared to students ($M=20.12$, $SD=4.42$) while for FA students scored lower ($M=20.37$, $SD=3.90$) compared to non-students ($M=21.90$, $SD=4.11$). FR yielded no significant effect for students vs non students ($F(1, 61)=2.52$, $p=.117$, $\eta p^2=.04$). In addition, even though there was no significant main effect for gender in relation to social support ($F(3, 59)=2.56$, $p=.063$, $\eta p^2=.12$), there was a significant effect for gender on SO levels ($F(1, 61)=4.50$, $p=.038$, $\eta p^2=.07$) and on FA levels ($F(1, 61)=7.12$, $p=.009$, $\eta p^2=.11$). For FA females scored higher ($M=21.78$, $SD=3.72$) compared to males ($M=19.20$, $SD=4.15$).

We also employed a two-way MANOVA to examine differences in maladaptive personality traits subscales (PID) between students and non-students and gender. There were 5 DVs: NA, DI, DT, AN and PS. Preliminary checks indicated that all assumptions were met. Even though there was no significant main effect for either gender $F(5,57)=.99$, $p=.435$, $\eta p^2=.08$ or student vs non-students $F(5,57)=.62$, $p=.685$, $\eta p^2=.05$, there was a significant effect for gender on DI ($F(1,61)=.57$, $p=.034$, $\eta p^2=.07$) with females scoring lower ($M=2.70$, $SD=1.67$) compared to males ($M=3.57$, $SD=1.91$).

Table 2

MANOVA–Differences in PSS Interaction Levels of Gender and Student vs non-student

Variables	*Value*	*F*	*df*	*p*	*Eta²*
Gender	.91	2.56	3	.063	.12
Student vs non-student	.83	5.40	3	.002*	.22

Note. PSS= Perceived social support

*Statistically significant difference: $p<.05$

Hypothesis 2 (NA and DI would explain lower levels of PSS)

We used a hierarchical multiple linear regression in order to examine if maladaptive traits can predict participant's overall levels of perceived social support while controlling for key demographic variables (Gender, students vs non-students). In order to verify that there was no multicollinearity, a Pearson correlation was employed to assess the relationships between the predictors (see Table 3), while r values suggested that the assumption of multicollinearity was not violated. In addition, tolerance and variance inflation factor did not indicate a violation of this assumption. We sequentially calculated a Durbin-Watson statistic to examine that the values of the residuals are independent, which proposed that this assumption was not violated. The hierarchical design used 3 models: 1) Model 1 predicted

PSS from DI, DT, PS, NA and AN, 2) Model 2 added Gender and 3) Model 3 added Student vs non-student. Model 1 predicted a significant amount of variance on PSS, $F(5, 59)=7.93$, $p<.001$ (see Table 4). The addition of Gender to the Model did not significantly increase the variance accounted for PSS, $F(1, 58)=1.50$, $p=.226$. Model 2 though did account for a significant amount of variance in PSS $F(6, 58)=6.92$, $p<.001$. Finally, the addition of Student to the model, resulted in a significant increase of variance accounted for in PSS, $F(1, 57)=6.33$, $p=.015$. Model 3 did account for a significant amount of variance in PSS, $F(7, 57)=7.38$, $p<.001$.

Table 3

Correlation Matrix

Variable	PSS	DI	DT	PS	NA	AN	Student	Gender
PSS	1							
DI	-.54	1						
DT	.04	-.13	1					
PS	.03	.07	.23	1				
NA	-.48	.42	-.01	.15	1			
AN	-.47	.57	-.09	.17	.43	1		
Student	.33	-.17	-.07	.01	-.12	-.11	1	
Gender	-.26	.23	-.13	-.01	.13	.20	.15	1

Note. PSS= Perceived social support; DI= Disinhibition; DT= Detachment; PS= Psychoticism; NA=Negative affectivity; AN= Antagonism; Student= Students versus non-students.

The final Model 3 (including all 7 predictors) overall accounted for approximately 47.5% of the variance in PSS (see Table 6). In order to complement our *p* values, we calculated a *Cohen's* f^2 value $f^2= .92$, indicating a large local effect size (Seyla et al. 2012). If all 7 predictors were equal to zero, PSS would be equal to 70.64. However only DI, NA and Student were indicated as significant predictors of PSS, independently from one another. More specifically for every unit increase in DI, PSS is expected to decrease 1.44 units while holding all other predictors constant. Similarly, for every unit increase in NA, PSS is expected to decrease .98 units, holding all other predictors constant. Finally, non-student participants reported on average 5.13 units higher on PSS scores when compared to students.

Table 4

Regression Coefficients of Maladaptive Traits for Perceived Social Support Model 1

Variables	*B*	*SE*	*t*	*p*	*95%CI*
Constant	74.29	3.37	22.03	<.001	[67.54, 81.03]
Disinhibition	-1.82	0.70	-2.58	.012*	[-3.22, -0.41]
Detachment	-0.26	0.50	-0.53	.601	[-1.26, 0.74]
Psychoticism	0.85	0.66	1.29	.204	[-0.47, 2.17]

Negative Affect	-1.05	0.42	-2.49	.016*	[-1.89, -0.21]
Antagonism	-1.28	0.87	-1.47	.147	[-3.03, 0.47]

Note. CI= Confidence interval.

* $p<.05$

Table 5

Descriptive Statistics

Variable	*N*	*M*	*SD*
PSS	65	63.42	9.90
Disinhibition	65	2.98	1.79
Detachment	65	4.11	2.01
Psychoticism	65	3.01	1.59
Negative Affect	65	3.22	2.72
Antagonism	65	2.78	1.44
Student	65		
Gender	65		

Table 6

Model 3 with DI, DT, PS, NA, AN, Gender and Student as predictors

Coefficient	*Estimate*	*SE*	*p*
Intercept	70.64	4.92	<.001*
Disinhibition	-1.44	0.68	.040*
Detachment	-0.22	0.48	.650
Psychoticism	0.74	0.63	.246
Negative Affect	-0.98	0.40	.018*
Antagonism	-1.15	0.84	.173
Gender	-3.73	2.13	.085
Student	5.13	2.04	.015*

Note. $F(7,57)=7.38$, $p<.001$ $R2=0.48$, $R_{adj}=0.41$

PSS= Perceived social support; DI= Disinhibition; DT= Detachment; PS= Psychoticism; NA=Negative affectivity; AN= Antagonism; Student= Students versus non-students.

** $p<.05$*

Table 7

Summary of $R^2\Delta$

Set	*Predictors*	*p*
Model 1	DI	N/A
	DT	
	PS	

	NA	
	AN	
Model 2	Gender	.226
Model 3	Student	.015*

Note. DI= Disinhibition; DT= Detachment; PS= Psychoticism; NA=Negative affectivity; AN= Antagonism; Student= Students versus non-students.

** p<.05*

Discussion

The current study was designed to examine unique associations between higher order maladaptive dimensions of personality as operationalized by the AMPD and perceived social support (PSS) as derived from Family (FA), Friends (FR) and Significant Other (SO) among non-clinical community samples of young adults. More specifically it was hypothesized that maladaptive traits of Negative Affectivity (NA), and Disinhibition (DI) would predict lower

overall levels of PSS. NA and DI have been delineated extensively in research and clinical practice as core traits responsible for interpersonal deficits (Depue & Lenzenweger, 2005). Even though a diagnosis of a PD is equivalent to debilitating psychological distress and interpersonal impairments, research suggests that even the presence of specific features observed in non-clinical samples can be responsible for significant instability in social interactions (Trull et al., 1997; Daley & Hamen, 2000). We therefore wanted to explore if those specific features could be reflected on the AMPD dimensional traits of NA and DI.

Consistent with our hypotheses we found an overall negative association between maladaptive personality traits and perceived social support. Data analysis provided mixed support regarding our second hypothesis, indicating that the higher order maladaptive personality domains of Disinhibition and Negative Affectivity (but not Antagonism) significantly explained the variance of PSS scores. In addition, students perceived their social support stemming from their significant others and family as less adequate when compared to non-students.

These results are largely endorsed by a broader empirical literature that has already established links between personality pathology and psychosocial functioning. A study that explored the relationship between PDs and aspects reflective of overall quality of life, found that individuals, derived from a non-clinical sample but whom qualified for a PD diagnosis, were significantly more likely to report poor interpersonal relationships with both friends and family (Cramer, Torgersen & Kringlen, 2006). Oltmanns, Melley and Turkheimer (2002) proposed direct links between PD symptomatology and impaired social functioning even while controlling for depressed mood. Hengatner et al. (2014) reported similar results when they examined a large community sample of young Swiss adults and found that even though poor social functioning was consistent across all PD classifications, interpersonal deficiencies were more pronounced among individuals scoring higher on dimensional of Negative Affectivity and Disinhibition (Calvo, et al., 2016). Similar conclusions were drawn from a 4-year longitudinal study examining the course of romantic relationships as experienced by young women with features of BPD (Daley & Hamen, 2000). Results suggested that chronic partner dissatisfaction and romantic stress could be attributed to relationship attitudes associated with NA. Kavanagh et al. (2021) extended the aforementioned conclusions while examining women with a cluster B and C, PD diagnosis. Results showed that these women were at risk of perceiving their social support as inadequate. Findings from the present study further suggest that the maladaptive dimensional traits of NA and DI, as operationally defined

by the AMPD's criterion B and irrespective of a PD diagnostic classification, are associated with lower self-reports of PSS.

Negative Affectivity (NA) and Neuroticism are terms that have been used interchangeably in mental health research as they both attempt to describe one's predisposition to experience negative emotions transversely in different contexts, characterized by chronological stability (Calvo, et al., 2016). Research has specified that individuals reporting high NA are more susceptible to experiencing frequent mood states characterized by irritability, anxiety and dysphoria while they are also more likely to engage in rigid and negative self-appraisal (Dombrovski & Hallquist, 2021). High NA individuals feel the need to carefully scan their environment for cues that might hint at an imminent threat and therefore they intuitively tend to interpret behaviors and motives of others' in a suspicious and often negative manner (Allen et al., 2022). Watson and Pennebaker (1989) emphasized that these individuals are likely to be significantly biased when interpreting both themselves and their interpersonal relationships. In line with this, a cross sectional study examining a myocardial infraction clinical population, observed significantly lower PSS levels among patients who reported elevated levels of NA (Sararoudi, Sanei & Baghbanian, 2011). Blumgart, Tran and Craig (2014) suggested a reciprocal interaction arising between NA and social support. In other words, individuals who maintain NA chronically and across different contexts are more likely to avoid social interactions which in turn causes more NA related mood states and so maintains a vicious cycle. Even though correlations are unable to establish causal links, our results are consistent with the notion that NA can contribute significantly to how one subjectively experiences the availability and quality of social support.

AMPD captions DI as the maladaptive end of what the Five Factor Model (FFM) described as conscientiousness. More specifically, DI is operationally defined as one's behavioral tendency to be driven by immediate gratification (impulsive behavior) in the absence of contemplating previous knowledge or future consequences (APA, 2013). A recent systematic review argued that DI can be approached as a unifying concept able to explain how personality features may bolster a wide range of psychopathological phenomena, beyond PD diagnoses (Sweatt et al., 2019). Kotov et al. (2017) confirmed that DI is the second personality trait that is most correlated with overall psychopathology, preceded by NA. Posner et al. (2003) argued that from a neuropsychological perspective, a neural collapse of the anterior executive network (responsible for executive response inhibition) is often observed in PD patients which, combined with an increased NA, may be responsible for intra

and interpersonal deficits in these individuals. Although DI as a dimensional maladaptive trait, had never been negatively associated with PSS before, what was surprising in our findings was that DI explained an even greater variance on PSS scores when compared to NA. A possible explanation could be provided by developmental studies highlighting drastic developmental shifts across all personality traits during young adulthood. Vaidaya, Latzman, Markon and Watson (2010) argue that these shifts? are more pronounced for Disinhibition versus Conscientiousness. Our results however should be evaluated with caution since the present study employed the Brief Form of the PID-DSM, which does not examine all 25 facets included in the original PID scale.

Students self-reported significantly lower PSS scores. More specifically, lower scores were observed on Significant Other and Family subscales when compared to scores of non-student participants. In line with this, age was positively and moderately (r=.21) correlated with PSS scores with non-students reporting higher scores on PSS. However, these results were not statistically significant (p=.100), possibly due to our small sample size N=65. Developmental studies suggest that college years (18-25) are considered a highly salient period given the rapidly shifting parent-child dynamic accompanied by an emerging desire for independence (LaForce et al., 2014). At this developmental stage, young adults tend to orient their needs for social relatedness towards their peers rather than their family "nest" (Bucx & van Wel, 2008). Another interesting finding was that females self-reported receiving significantly higher social support from their families. Similar results were reported among Malaysian college students (Talwar, Kumaraswamy & Fadzil, 2013). Research indicates that early life experiences and gender social roles often equip young females with more sophisticated socializing skills. It is therefore probable that by juggling their social responsibilities and expectations in more effective ways, on average, females might succeed more often in maintaining healthy relationships with their families when compared to males (Matud et al., 2003). Finally, in line with already existing literature, our results suggested that males self-reported higher scores of DI (Schmitt, Realo, Voracek & Allik, 2008).

Limitations of the Study and Directions for Future Studies

There are a few notable limitations regarding the present study. First, a cross sectional design prevents us from drawing stronger conclusions. Future research should approach these constructs in a longitudinal manner in order to fully appreciate their complexity and clinical utility from a developmental point of view. Such underutilized designs might shed some light on whether NA and DI traits are able to predict lower levels of PSS consistently across time and developmental stages. This level of analysis would further enable us to examine multiple

transdiagnostic pathways to Personality Pathology and broaden its clinical utility beyond the classification system. Second, our non-clinical sample, together with the fact that participants self-reported maladaptive traits that may be indicative of PD pathology via a brief screening questionnaire, prevent us from generalizing our findings to clinical populations. In our case however, it is highly relevant to assess both clinical and subclinical consequences of maladaptive traits since research has shown that their presence can cause comparable debilitating consequences on both levels (Trull et al., 1997). Third, although our analysis of variance on PSS scores yielded large effect sizes, we should treat these results with caution since PSS levels are highly susceptible to a wide range of confounding variables that we did not control for in our design (e.g. depression, anxiety; Hefner & Eisenberg, 2009). Finally, all our data were collected using self-report measures. Watson et al. (1987) have argued that NA trait might act as a nuisance variable when it comes to self-reporting dissatisfaction and therefore more objective measures like structured clinical interviews may be more reliable in future studies choosing to extend these findings.

Theoretical and Clinical Implications

Our findings further expanded on already existing data highlighting the key mechanisms of interpersonal functioning in the development and maintenance of psychological impairments (Dryburgh et al., 2020). By extending our results, future studies might be able to emphasize the transdiagnostic value of NA and DI maladaptive traits beyond the categorical classification of PDs. Data in the present study, confirmed that college students are especially vulnerable in experiencing deficiencies in the availability and quality of their social support. Our study suggests that early psychosocial interventions should be an inherent strategy of global policy making in mental health. Reconsidering psychopathology as a dynamic process fueled by complex social contexts and unique individuals, would enable us to optimize treatment plans and outcomes. Clinicians should therefore contextualize symptoms and emphasize more on including social support systems in treatment modalities (e.g. Multifamily groups, psychoeducation). Mental health policies should consider treating social environments in a preventive way rather than focusing on the consequences of symptoms once they yield societal and economic burdens that cannot be ignored.

Figure 1.

Maladaptive Personality Traits

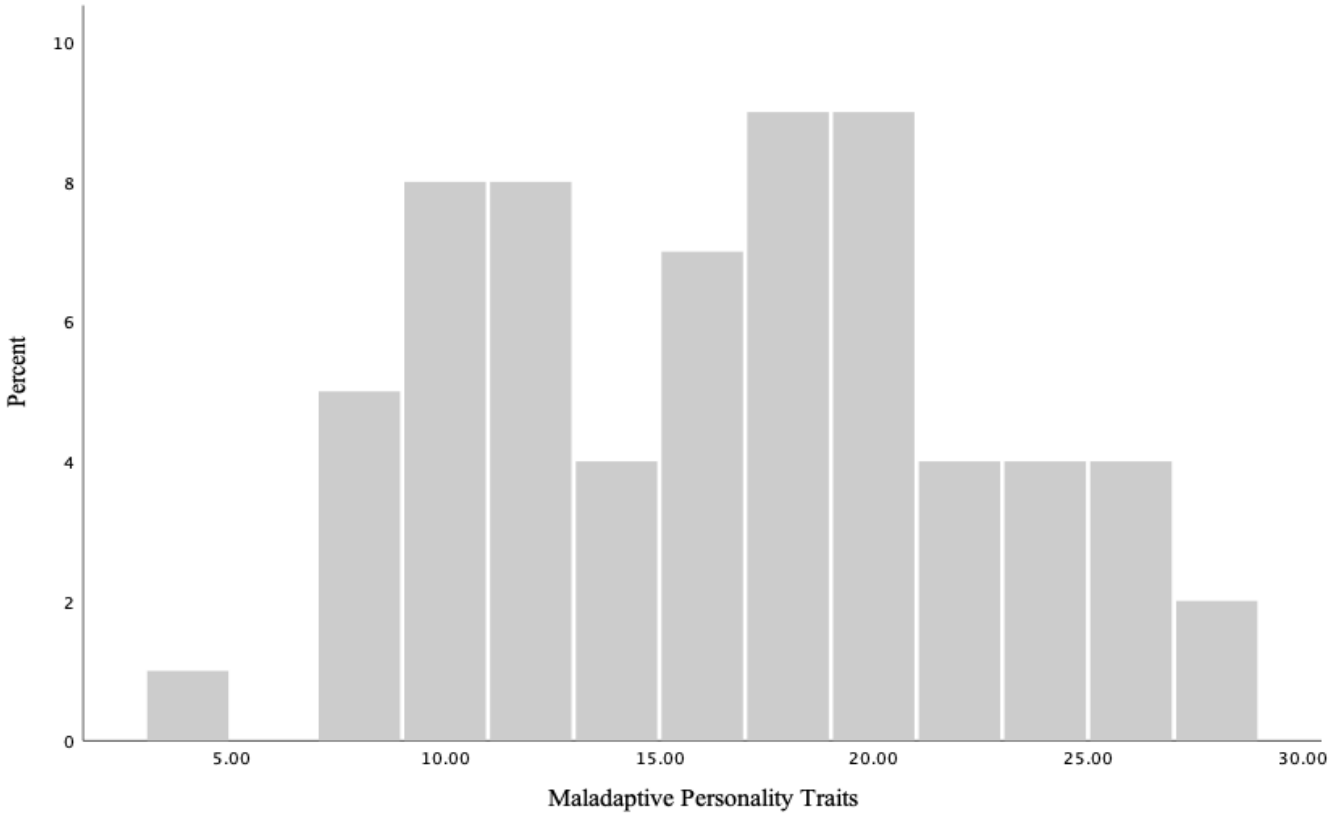
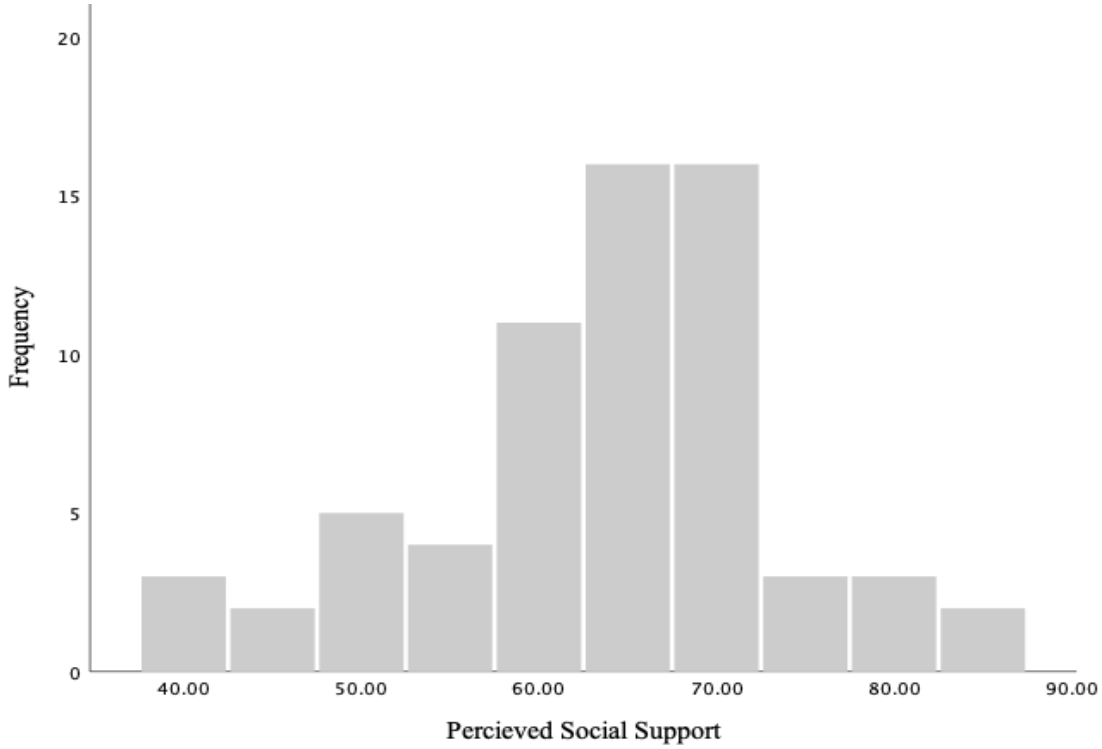


Figure 2.

Perceived Social Support


Frequency
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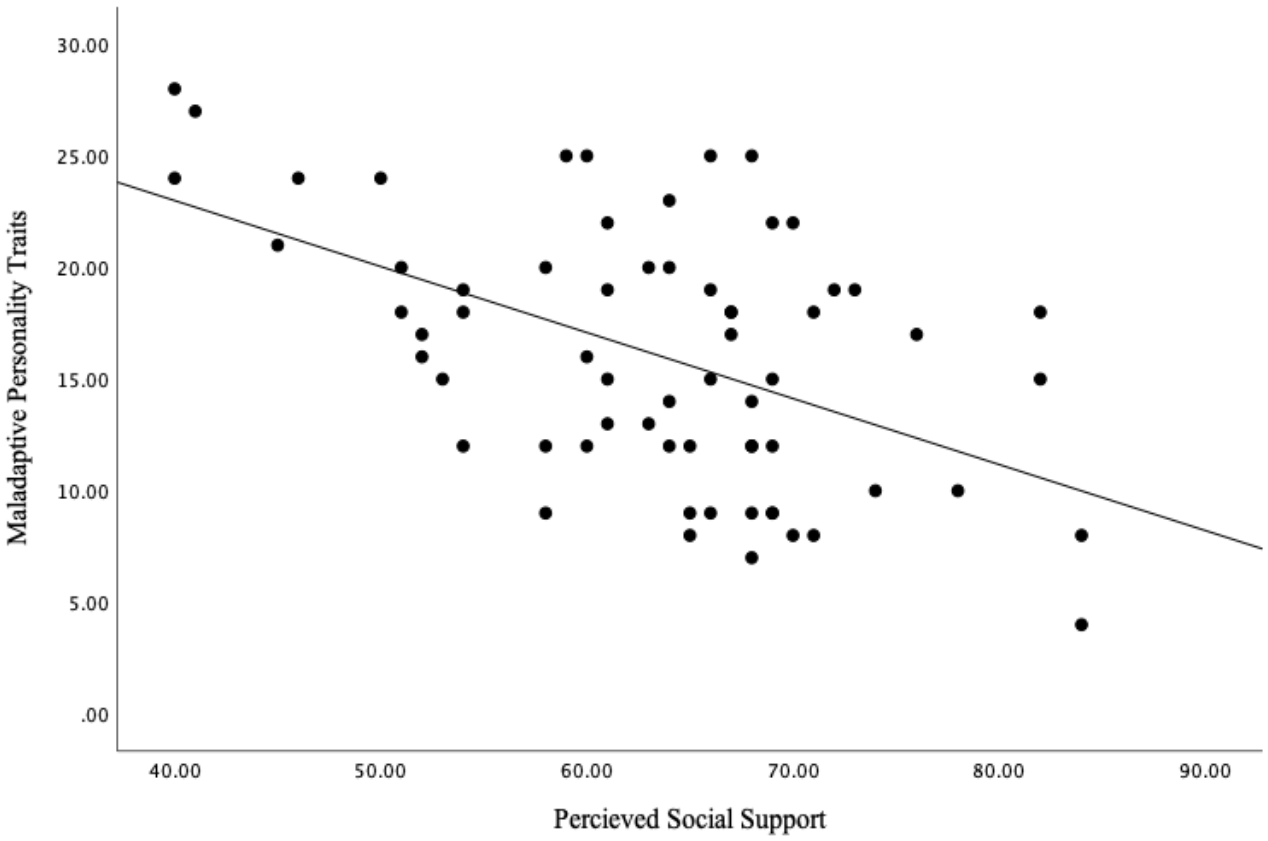
80.00
90.00
Percieved Social Support

Figure 3.


Maladaptive Personality Traits
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90.00
Percieved Social Support

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Appendix A

Dear potential participant,

Through this letter we would like to inform you about our Master's Thesis research project, "Exploring the prevalence of personality pathology among young adults: A comparison of young adults in the Netherlands and in Greece". If you,

- Are 18 or older

- Have 20 minutes to spare
- Live in The Netherlands or Greece
- Have access to a smartphone or laptop,

You are invited to take part!

Background of our Research

Emerging research suggests that lower socioeconomic status (for example: lower income, or lower education level) is a significant predictor for the development of mental health issues (Peverill et al., 2021). On the other hand, there is also evidence found through cross-national studies that a "vulnerability paradox" exists. This means that more *at-risk* populations appear to be *less* likely to develop specific mental health disorders due to different factors such as culture specific values, a person's support system, and resilience (adversity followed by successful adaptation; Raghavan & Sandanapitchai, 2020; Duckers et al., 2016). Given the socioeconomic gap between Greece and the Netherlands, this study aims to explore whether the above counterintuitive results can be found within the bounds of personality traits which can be indicative of personality disorders. Our research aims to see if there is a link between perceived social support and specific personality traits, and if this link is different in people in The Netherlands and Greece.

You will be asked to voluntarily complete an online survey consisting of general demographic characteristics (employment status, education status, age, gender, and county of residence), and questions having to do with personality traits and perceived social support. These questions have been tested for quality in terms of validity and reliability.

Voluntary Participation

Participation in this study is voluntary. If you decide to stop participating at any point, there will be no consequences for you, and you will not be required to offer any explanation. Data that you have entered up until the point of discontinuation may or may not be used in the final analysis.

Confidentiality of data processing

This research requires us to collect a number of personal data from you. We need this information to be able to answer the research question properly, or to be able to approach you for follow-up research. The personal data is stored on a different computer than the research data itself (the so-called raw data). The computer on which the personal data is stored is secured to the highest standards and only the researchers involved have access to it. The data itself is also protected by a security code. Your data will be stored for at least 10 years. This is according to the appropriate VSNU guidelines. You can read more information about

privacy on the website of the Personal Data Authority: https://autoriteitpersoonsgegevens.nl/nl/onderwerpen/avg-europese-privacywetgeving

Contact Information and Complaints Protocol:

If you have questions or comments about the study, you can contact either:

Andromeda Goldberg- Jones (student conducting this research):

Email: andromedaajones@gmail.com

Vasileios Koutsoumpas (student conducting this research)

Email: vassilioskouts@gmail.com

If you have an official complaint about the investigation, you can send an e-mail to the complaints officer via klachtenfunctionaris-fetcsocwet@uu.nl. Contact details Data Protection Officer: https://www.uu.nl/organisatie/praktische-zaken/privacy/functionaris-voor-gegevensbescherming

If you would like to participate in our research, you will be asked to complete a statement of consent at the beginning of the questionnaire.

Please save a copy of this letter for your own reference.

Thank you!

Kind regards,

Andromeda Goldberg- Jones & Vasileios Koutsoumpas

Appendix B

Multidimensional Scale of Perceived Social Support

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you **Very Strongly Disagree**
Circle the "2" if you **Strongly Disagree**
Circle the "3" if you **Mildly Disagree**
Circle the "4" if you are **Neutral**
Circle the "5" if you **Mildly Agree**
Circle the "6" if you **Strongly Agree**
Circle the "7" if you **Very Strongly Agree**

		Very Strongly Disagree	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree	Very Strongly Agree
1.	There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2.	There is a special person with whom I can share joys and sorrows.	1	2	3	4	5	6	7
3.	My family really tries to help me.	1	2	3	4	5	6	7
4.	I get the emotional help & support I need from my family.	1	2	3	4	5	6	7
5.	I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6.	My friends really try to help me.	1	2	3	4	5	6	7
7.	I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8.	I can talk about my problems with my family.	1	2	3	4	5	6	7
9.	I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10.	There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11.	My family is willing to help me make decisions.	1	2	3	4	5	6	7
12.	I can talk about my problems with my friends.	1	2	3	4	5	6	7

Appendix C

The Personality Inventory for DSM-5—Brief Form (PID-5-BF)—Adult

Name: _____ **Age:** ___ **Date:**_____

Instructions: This is a list of things different people might say about themselves. We are interested in how you would describe yourself. There are no right or wrong answers. So you can describe yourself as honestly as possible, we will keep your responses confidential. We'd like you to take your time and read each statement carefully, selecting the response that best describes you.						**Clinician Use**
		Very False or Often False	**Sometimes or Somewhat False**	**Sometimes or Somewhat True**	**Very True or Often True**	**Item score**
1	People would describe me as reckless.	0	1	2	3	
2	I feel like I act totally on impulse.	0	1	2	3	
3	Even though I know better, I can't stop making rash decisions.	0	1	2	3	
4	I often feel like nothing I do really matters.	0	1	2	3	
5	Others see me as irresponsible.	0	1	2	3	
6	I'm not good at planning ahead.	0	1	2	3	
7	My thoughts often don't make sense to others.	0	1	2	3	
8	I worry about almost everything.	0	1	2	3	
9	I get emotional easily, often for very little reason.	0	1	2	3	
10	I fear being alone in life more than anything else.	0	1	2	3	
11	I get stuck on one way of doing things, even when it's clear it won't work.	0	1	2	3	
12	I have seen things that weren't really there.	0	1	2	3	
13	I steer clear of romantic relationships.	0	1	2	3	
14	I'm not interested in making friends.	0	1	2	3	
15	I get irritated easily by all sorts of things.	0	1	2	3	
16	I don't like to get too close to people.	0	1	2	3	
17	It's no big deal if I hurt other peoples' feelings.	0	1	2	3	
18	I rarely get enthusiastic about anything.	0	1	2	3	
19	I crave attention.	0	1	2	3	
20	I often have to deal with people who are less important than me.	0	1	2	3	
21	I often have thoughts that make sense to me but that other people say are strange.	0	1	2	3	
22	I use people to get what I want.	0	1	2	3	
23	I often "zone out" and then suddenly come to and realize that a lot of time has passed.	0	1	2	3	
24	Things around me often feel unreal, or more real than usual.	0	1	2	3	
25	It is easy for me to take advantage of others.	0	1	2	3	
					Total/Partial Raw Score:	
					Prorated Total Score: (if 1-6 items left unanswered)	
					Average Total Score:	