Published in final edited form as:

J Anxiety Disord. 2012 August ; 26(6): 665–672. doi:10.1016/j.janxdis.2012.05.004.

Avoidant Personality Disorder in Individuals with Generalized Social Anxiety Disorder: What Does It Add?

Luana Marques^{a,*}, Eliora Porter^{a,b}, Aparna Keshaviah^a, Mark H. Pollack^c, Michael Van Ameringen^d, Murray B. Stein^e, and Naomi M. Simon^a

^aDepartment of Psychiatry, Massachusetts General Hospital, 1 Bowdoin Square, 6th Floor, Boston, MA 02114-2790, United States

^bDepartment of Psychology, University of Pennsylvania, 3270 Walnut Street, Philadelphia, PA 19104

^cDepartment of Psychiatry, Rush University Medical Center, 2150 W Harrison St., Chicago, IL 60612

^dDepartment of Psychiatry and Behavioural Neurosciences, 439-1 Fontbonne Bldg., St. Joseph's Healthcare Hamilton, 301 James St. S., Hamilton, ON, L8P 3B5, Canada

^eDepartment of Psychiatry, University of California San Diego, 8939 Villa La Jolla Drive, Suite 200 MC 0855, La Jolla, CA 92037

Abstract

Avoidant Personality Disorder (AvPD) has a high level of symptom overlap and comorbidity with Generalized Social Anxiety Disorder (GSAD). We examined whether the presence of comorbid AvPD adds significant clinically relevant information for individuals seeking treatment for GSAD. Results suggested that AvPD was significantly associated with poorer quality of life and greater disability in univariate, but not multivariate analyses. Endorsement of more AvPD symptoms was associated with increased disability, increased risk of intimacy, and lower social support, even after covariate adjustment. Specifically, AvPD item 3, hard to be “open” even with people you are close to, was most strongly correlated with quality of life and disability. A binary diagnosis of AvPD alone adds little beyond a marker of greater GSAD severity and depression among patients with GSAD, while a specific feature of AvPD not captured by the GSAD diagnosis, namely emotional guardedness, may be associated with greater impairment.

Keywords

Generalized Social Anxiety Disorder (GSAD); Avoidant Personality Disorder (AvPD); Severity Continuum Hypothesis; Major Depressive Disorder (MMD); Social Phobia; Anxiety

1. Introduction

In the past decade, the clinical utility of the diagnosis of avoidant personality disorder (AvPD) in the presence of a comorbid diagnosis of generalized social anxiety disorder

*Corresponding author at: Department of Psychiatry, Massachusetts General Hospital, 1 Bowdoin Square, 6th Floor, Boston, MA 02114-2790. Tel: +1 617 726 0776; fax: +1 617 643 0730; lmarques@partners.org.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

(GSAD; e.g., (Chambless, Fydrich, & Rodebaugh, 2008; Cox, Pagura, Stein, & Sareen, 2009; Hummelen, Wilberg, Pedersen, & Karterud, 2007) has been debated. GSAD is an Axis I diagnosis in the DSM-IV (American Psychiatric Association, 2000), and is characterized by persistent fear of embarrassment in most social and performance situations and recognition that this fear is unreasonable. Individuals with GSAD either avoid these situations or endure them with extreme anxiety. In contrast, AvPD is an Axis II personality disorder, characterized by avoidance of social situations and fear of negative evaluation, described as “a pervasive pattern of social inhibition, feelings of inadequacy, and hypersensitivity to negative evaluation” (American Psychiatric Association, 2000). Previous studies have found a high prevalence of AvPD among individuals with GSAD, with estimates ranging from 25 to 89% (Chambless, et al., 2008; Cox, et al., 2009; van Velzen, Emmelkamp, & Scholing, 2000). Similarly, high rates of GSAD have been reported among those with AvPD (36 to 100%; (Cox, et al., 2009; Herbert, Hope, & Bellack, 1992; Holt, Heimberg, & Hope, 1992).

Given the high degree of overlap between these two diagnoses, theorists have posited that AvPD and GSAD may not be distinct conditions. Rather, they might reflect a single construct that exists on a continuum, with AvPD representing a more severe manifestation of GSAD (e.g., the severity continuum hypothesis; (van Velzen, et al., 2000). Specifically, if GSAD and AvPD reflect a single construct, then there is no clinical utility in additionally diagnosing AvPD in individuals with GSAD, and the current diagnostic system should be revised. Indeed, proponents of the severity continuum hypothesis have called for major revisions to the AvPD and GSAD diagnostic criteria (Reich, 2000) or for combining the two disorders into one in the DSM (Ralevski et al., 2005).

The severity continuum hypothesis rests on the suppositions that 1) individuals with GSAD and AvPD exhibit more severe symptoms and greater impairment than those with GSAD without AvPD, and that 2) the greater severity observed in AvPD compared to GSAD can be entirely accounted for by differences between the two groups in overall GSAD symptom severity. To affirm the severity continuum hypothesis, researchers would need to demonstrate clear evidence in support of both of the aforementioned points. However, a clear refutation of the severity continuum hypothesis is more difficult, because even if researchers were able to demonstrate that differences between AvPD and GSAD persist after controlling for symptom severity, the possibility that the differences are due to interactions on the higher end of the severity continuum remains. Thus, the question of potential interactions would also need to be addressed to successfully refute the severity continuum hypothesis. Furthermore, even if differences persist after controlling for symptom severity and potential interactions, questions would remain as to whether such differences were clinically significant and warrant the inclusion of separate GSAD and AvPD diagnoses in the DSM.

Evidence in support of the first tenet of the severity continuum hypothesis comes from several studies demonstrating that individuals with comorbid GSAD and AvPD exhibit more severe social anxiety symptoms (Chambless, et al., 2008; Cox, et al., 2009; van Velzen, et al., 2000) and higher rates of psychiatric comorbidity (Boone et al., 1999; Cox, et al., 2009; Herbert, et al., 1992; Holt, et al., 1992) than those with GSAD only. However, only two studies (Chambless, et al., 2008; Cox, et al., 2009) have addressed the second tenet of the severity continuum hypothesis by examining whether differences between GSAD with and without AvPD persist after controlling for GSAD symptom severity, and these studies have produced mixed results. Chambless and colleagues (2008) found no significant differences between GSAD-AvPD and GSAD-alone in social skills after controlling for GSAD symptom severity. However, they did find lower levels of self-esteem among individuals with comorbid AvPD after controlling for GSAD symptom severity. Similarly, Cox and

colleagues (2009) found that the likelihood of receiving a diagnosis of AvPD increased with GSAD symptom severity, but also found higher rates of mood, anxiety, and substance use disorder comorbidity and lower mental health-related quality of life among GSAD individuals with comorbid AvPD relative to those with GSAD-alone. In contrast to the findings from Chambless, et al., these differences all remained after controlling for GSAD symptom severity. However, the majority (60.5%) of those with AvPD in their sample did not meet criteria for GSAD. Although the available data are mixed as to whether the presence of diagnosed AvPD adds additional information regarding symptomatology, comorbidity, and quality of life beyond that associated with greater severity of social anxiety in general, taken together they suggest that it is unlikely that AvPD can be explained as simply a more severe variant of GSAD; of note, however, the majority of studies examining the overlap between AvPD and GSAD did not control for GSAD symptom severity in their analyses. Further, neither of the two studies that controlled for symptom severity employed a validated, clinician-rated measure of GSAD severity.

In the present study, we sought to address these limitations. Specifically, we investigated the impact of comorbid AvPD on quality of life (QOL), disability, and interpersonal functioning among a large sample of individuals with a primary DSM-IV diagnosis of GSAD as determined by trained clinicians with semi-structured diagnostic interviews. First, we examined whether individuals with and without a diagnosis of AvPD differed on these psychosocial variables and whether any observed differences could be fully explained by differences in GSAD symptom severity. Second, we examined whether AvPD considered as a continuum, based on the number of AvPD symptoms endorsed, was uniquely associated with these quality of life and function measures. Finally, we examined the association between each AvPD symptom and baseline QOL, disability, and functioning, in order to better understand which specific aspects of AvPD may contribute to differences between patients with GSAD with or without comorbid AvPD. Specifically, based on previous work suggesting that AvPD is associated with more severe social phobia symptom severity, we hypothesized that Liebowitz Social Anxiety Scale (LSAS) scores would be higher among the AvPD-GSAD group compared to the GSAD alone group. We also hypothesized that demographics, presence of major depressive disorder (MDD), and GSAD symptom severity would wholly account for any differences between the AvPD-GSAD and GSAD alone groups on the psychosocial measures in the first model (when AvPD was conceptualized as a dichotomous variable) but not in the second model (when AvPD was conceptualized as an ordinal variable).

2. Material and Methods

2.1 Participants

Participants were 326 individuals aged 18 and older recruited by advertisement and clinical referral who signed consent, met eligibility criteria for a multi-site pharmacotherapy study of generalized social anxiety disorder (GSAD: NIMH R01MH70919, R01MH70501, and R01MH70917), and were assessed for the presence of avoidant personality disorder (AvPD).

2.2 Procedure

Eligible participants were individuals with a primary diagnosis of GSAD and a Liebowitz Social Anxiety Scale (LSAS) score of ≥ 60 who gave informed consent and attended the baseline study visit. Individuals with lifetime diagnoses of psychosis, bipolar disorder, mental retardation, organic medical disorders, seizure disorders, and obsessive-compulsive disorder with Y-BOCS score ≥ 25 were excluded, as were those with alcohol or substance abuse in the past 3 months or substance dependence or eating disorders in the past 6 months.

Concurrent psychotherapy, use of most psychotropic medications, and 2 prior unsuccessful pharmacotherapy trials were also exclusionary.

All assessments were collected prior to initiation of treatment. Participants were assessed with the Mini-International Neuropsychiatric Interview at the study screening visit. Clinicians simultaneously collected demographic information, including age, sex, race, ethnicity, level of education, and marital status. Approximately one week later, eligible participants returned for a study baseline visit, at which time they completed the self-report measures listed below and met with a clinician who administered the LSAS and the SCID-II Avoidant Personality Disorder Module. All data were entered directly into the study database by patients and clinicians to reduce errors and missing data, and data restrictions were placed on fields within the database to prevent entry of disallowed values. Data quality control checks were also run on a monthly basis during the study to identify missing data as well as data discrepancies across forms and visits. Participants completed self-report questionnaires in the order in which they are listed below. All study procedures were approved by the institutional review board at each of the participating sites.

2.3 Measures

For all measures, total and mean scores were calculated only when fewer than 10% of items were missing. In the presence of such missing data, missing scores were imputed as the mean of answered items multiplied by the total number of items in the scale. Rates of missing data were extremely low, with no more than 5 participants (1.5%) missing data on any given measure.

2.3.1 Clinician-rated diagnostic and severity measures—The Mini-International Neuropsychiatric Interview (MINI; (Sheehan et al., 1998) was administered by trained clinicians, and was used to diagnose of GSAD, MDD, and some exclusionary diagnoses.

The SCID-II Avoidant Personality Disorder Module (SCID-II; (First, Gibbon, Spitzer, Williams, & Benjamin, 1997) was used to assess the presence of avoidant personality disorder. Clinicians rated each of the 7 symptoms of avoidant personality disorder as absent or false (“1”), subthreshold (“2”), or present or true (“3”). In order to meet diagnostic criteria for avoidant personality disorder, participants had to receive a score of 3 on 4 or more items. In the current study, we examined AvPD as both a dichotomous variable (whether or not 4 or more symptoms were present) and an ordinal variable (number of symptoms present).

The Liebowitz Social Anxiety Scale (LSAS; (Liebowitz, 1987) was used to assess GSAD symptom severity, with higher total scores suggesting more severe social anxiety. The LSAS is a highly consistent measure (published $\alpha = .96$) with good convergent and divergent validity and sensitivity to treatment gains (Heimberg et al., 1999). The LSAS was also found to have high internal consistency in our study sample ($\alpha = .91$).

2.3.2 Self-rated measures—The Sheehan Disability Scale (SDS; (Sheehan, Harnett-Sheehan, & Raj, 1996) was used to assess impairment in the work, social, and family domains. Higher scores indicate higher levels of disability. A total score was also calculated by summing the domain scores, and was used as a measure of overall disability. The SDS is sensitive to treatment gains, and has been shown to discriminate well between patients and controls (Sheehan, et al., 1996).

The Quality of Life Enjoyment and Satisfaction Questionnaire – Short Form (Q-LES-Q; (Endicott, Nee, Harrison, & Blumenthal, 1993) was used to rate participants’ satisfaction across domains such as physical health, mood, family relationships, and ability to function

in daily life, with higher scores indicating better quality of life. In previous work, the Q-LES-Q has demonstrated high test-retest reliability ($r=.63-.89$), internal consistency ($\alpha = .90-.96$), discriminate validity, and sensitivity to change (Endicott, et al., 1993). The Q-LES-Q also demonstrated high internal consistency in the current sample, with $\alpha = .86$.

The National Comorbidity Survey Work Impairment Scale (NCS-WIS; (Kessler & Frank, 1997) was used to measure work related impairment. We summed number of missed work days due to mental health and number of cut-back work days due to mental health to create a NCS-WIS total score.

The Risk in Intimacy Inventory (RII; Pilkington & Richardson, 1988) was used to measure of a respondent's perceived risk in intimate relationships. Higher scores represent higher levels of perceived risk in intimacy. The RII has been shown to have high internal consistency ($\alpha = .86$) and good construct validity in published samples (Pilkington & Richardson, 1988), as well as high internal consistency in the current sample ($\alpha = .91$).

The Multidimensional Scale of Perceived Social Support (MSPSS; (Zimet, Dahlem, Zimet, & Farley, 1988) was used to measure overall perceived social support. We calculated total MSPSS score by averaging scores for each item, with higher scores indicating greater perceived social support. In previous work, the MSPSS has demonstrated high internal consistency ($\alpha = .88$), high test-retest reliability ($r = .85$), and acceptable construct validity (Zimet, et al., 1988). In the current sample, the MSPSS was also found to be highly consistent, with $\alpha = .89$.

2.4 Analytical Approach

Demographic characteristics of patients with and without a diagnosis of AvPD were compared using t-tests for continuous covariates, and chi-square tests for categorical covariates. Linear regression was used to identify psychosocial variables significantly associated with AvPD. After confirming linearity assumptions, linear regression models examining the additive effect of the presence of AvPD were generated separately for each measure (Q-LES-Q, RII, SDS Overall, SDS Work, SDS Social Life, SDS Family Life, NCS-WIS, and MSPSS Mean scores). The first stage of analysis examined the association of AvPD (examined either as AvPD diagnosis, yes/no, based on answering at least 4 of 7 items as threshold/true on the AvPD scale, or as the ordinal number of AvPD symptoms endorsed) with the psychosocial variables listed above, adjusting for gender and age. Next, GSAD symptom severity (LSAS total score) was added into those models in which AvPD was found to be significantly associated with the QOL or function measure. Finally, as step 3, current binary MDD diagnosis was added into the models in which AvPD remained statistically significant after controlling for LSAS. Significance was based on a two-sided $\alpha = 0.05$. No adjustments were made for multiple comparisons because a universal null hypothesis did not exist in this context (Rothman, 1990).

3. Results

Table 2 summarizes the baseline characteristics of the 326 participants with GSAD. Consistent with previous studies documenting a high association between AvPD and GSAD (Chambless, et al., 2008), two-thirds of our sample also met criteria for AvPD. Furthermore, as predicted, there was a significantly higher LSAS score for those with comorbid AvPD compared to GSAD alone ($t(324) = -5.93, p < 0.0001$), suggesting that AvPD comorbidity is associated with more severe social anxiety symptoms. Race also significantly differed between the two groups ($\chi^2(4, N = 326) = 11.47, p = 0.022$), with a larger proportion of White and a smaller proportion of Black or Other race patients among the GSAD with

AvPD group. It is important to note that racial differences and the racial subgroup sizes were small and as such, these results should be interpreted with caution.

With the exception of MSPSS overall mean ($\chi^2(1, N=326) = 3.57, p = 0.082$), AvPD diagnosis was significantly associated with each psychosocial measure examined after adjustment for gender and age (Table 3). However, after additionally controlling for GSAD symptom severity (LSAS total score), AvPD diagnosis was no longer significant in any of the models. These results are consistent with the severity continuum hypothesis, suggesting that after controlling for social phobia symptom severity, AvPD is not associated with worse psychosocial functioning. Thus, from this perspective these results suggest that AvPD may represent a more severe form of GSAD.

When AvPD was instead analyzed as an ordinal covariate based on number of symptoms endorsed, a different story emerged. Similar to dichotomous AvPD diagnosis, AvPD as an ordinal variable was a significant predictor of all covariates examined after adjustment for gender and age (Table 4). However, in contrast to the dichotomous model, after additionally controlling for GSAD symptom severity, number of AvPD symptoms remained a significant predictor of all of the measured psychosocial variables with the exception of the NCS-WIS and the SDS Work Life and the Family Life subtotals (Table 4). Finally, after additionally controlling for the presence of current comorbid MDD, the number of AvPD symptoms endorsed remained significant for all the psychosocial measures, with the exception of NCS-WIS score (Table 4). In summary, even after adjustment for the presence of MDD, a common comorbid diagnosis with AvPD (Cox, et al., 2009), number of AvPD symptoms remained a significant predictor of interpersonal difficulties and poor quality of life. Thus, in contrast to the severity continuum hypothesis, these results suggest that although AvPD and GSAD are likely to share a large amount of variance, there is something unique about some of the AvPD symptomatology that is not currently captured by a diagnosis of GSAD.

To understand which items of the AvPD Criteria Scale may have contributed to the differences in results for AvPD diagnosis compared to symptom loading, we examined the prevalence of each AvPD scale item (categorized as present based on a score of 3 and absent based on a score of 1 or 2), as well as its partial correlations with each psychosocial measure after controlling for age, gender, and LSAS score. Overall, the most prevalent symptoms in patients with and without a diagnosis of AvPD were item 4 (i.e., worry about being criticized or rejected in social situations) and item 5 (i.e., usually quiet when meeting new people; Figure 1). The difference in symptom prevalence between patients with and without AvPD was greatest for item 2 (i.e., avoid getting involved with someone unless certain they will like you), with partial correlations ranging from -0.21 to 0.24 . The magnitude of the correlation coefficients across all baseline covariates were highest for item 3 (i.e., hard to be “open” even with people you are close to; Figure 2A). Item 2 and item 7 (i.e., afraid to try new things) were also more strongly correlated with the psychosocial measures than the other AvPD items. Furthermore, when we examined the partial correlation coefficients with item 7, we found that they were largely of opposite signs when comparing patients with and without AvPD (Figure 2B). To illustrate, among patients with GSAD and AvPD, endorsement of item 7 was associated with less perceived social support (black bar below 0) and higher perceived risk in intimacy and disability (black bars above 0). In contrast, among patients without AvPD, endorsement of item 7 was associated with the opposite effects, namely higher perceived social support and lower perceived risk in intimacy, and greater disability (patterned grey bars).

Based on these results, it appears that the most consistent and differentiating AvPD symptoms among patients with a primary diagnosis of GSAD are difficulty being “open”

even with people you are close to (item 3), fear of trying new things (item 7), and avoidance of getting involved with somebody unless certain they will like you (item 2).

4. Discussion

The current study examined differences between individuals with GSAD with and without comorbid avoidant personality disorder, and investigated whether these differences persisted after controlling for GSAD symptom severity. Furthermore, we investigated whether one or more of the AvPD criteria could explain residual differences between the AvPD and non-AvPD groups that were unaccounted for by differences in GSAD symptom severity. To our knowledge, the present study is the first to address these questions using a well-validated, clinician-administered measure of GSAD symptom severity, the LSAS. Additionally, our study is unique in that it is the first to examine the relationship between individual symptoms comprising the AvPD diagnostic criteria and psychosocial variables in a GSAD sample.

Consistent with previous studies on this topic that have suggested that GSAD and AvPD are highly related constructs (Chambless, et al., 2008; Cox, et al., 2009), our results indicate that a binary diagnosis of AvPD alone may add little information beyond serving as a marker of greater GSAD severity and depression among patients with GSAD. However, even after adjustment for age, gender, GSAD severity, and presence of MDD, individuals who endorsed a greater number of AvPD symptoms reported significantly higher levels of functional disability, particularly in social situations, higher perceived risk in intimacy, and lower levels of perceived social support.

To understand these mixed results and whether specific AvPD features might be important, we examined partial correlations between each item of the AvPD criteria and the psychosocial variables. Results showed that item 3, hard to be “open” even with people you’re close to, was highly correlated with psychosocial impairment, and particularly impairment in explicitly interpersonal domains (see Figure 2A). Thus, individuals who are more emotionally guarded (as indicated by an affirmative response to item 3) may perceive intimacy as riskier and consequently have poorer quality social support networks, which in turn might result in increased difficulty not only in intimate relationships but also in relationships with their closest friends and family members. It is also possible that the relationship between these variables is bidirectional to some extent, but due to the cross-sectional nature of the present study we were not able to address the issue of directionality.

Our finding that individuals who are more emotionally guarded reported more difficulty in interpersonal domains is consistent with previous research on interpersonal functioning in avoidant personality disorder. For example, Hummelen and colleagues (2007) found more interpersonal problems among patients with AvPD but not GSAD compared to patients with GSAD but not AvPD. Similarly, Perugi and colleagues (2001) found the highest rates of comorbid AvPD among social phobics who primarily endorsed interpersonal fears on the LSAS, compared to those primarily endorsing other types of fears (e.g., formal speaking anxiety, stranger-authority anxiety, anxiety of doing something while being observed). Using a combination of self-report and peer-report data, Rodebaugh and colleagues (Rodebaugh, Gianoli, Turkheimer, & Oltmanns, 2010) also found evidence for interpersonal problems among individuals with AvPD, particularly as they related to these individuals being socially inhibited, unassertive, cold, and overly accommodating. These data and our findings together highlight that differences between the constructs of GSAD and AvPD are interpersonal in nature; avoidant personality disorder appears to contain aspects of emotional guardedness and added deficits in interpersonal functioning that are not present in GSAD.

Overall, our results highlight that emotional guardedness appears to be an important component of avoidant personality disorder that may be clinically useful to assess among individuals with a diagnosis of generalized social anxiety disorder. Because emotional guardedness is associated with more interpersonal impairment above and beyond GSAD severity and depression, it is important for clinicians to assess the presence of this characteristic among individuals with GSAD. It seems reasonable to posit that individuals who have difficulty opening up to close friends and relatives may have more difficulty opening up to a therapist with whom their relationship history is much more limited. Thus, future research should investigate whether emotional guardedness is in fact a predictor of poor response to CBT for GSAD.

4.1 Limitations and Future Directions

Although the present study improves upon previous research on AvPD and GSAD by adjusting for GSAD symptom severity using LSAS scores and by examining specific AvPD criteria which may be driving the differences between individuals with and without AvPD, it also has a number of limitations. First, it should be noted that our findings regarding the associations between specific items of the AvPD criteria and psychosocial variables should be interpreted in light of limitations inherent in the AvPD criteria themselves. Though a number of studies have provided evidence for the internal consistency and one-factor structure of the AvPD criteria (Blais & Norman, 1997; Grilo & McGlashan, 2000; Grilo et al., 2001; Hummelen, Wilberg, Pedersen, & Karterud, 2006; Maffei et al., 1997; Nestadt et al., 2006; Sanislow et al., 2002), evidence for the discriminant validity of the AvPD criteria is mixed (Blais & Norman, 1997; Grilo & McGlashan, 2000). Furthermore, item 3 (hard to be “open” even with people you are close to) has consistently been identified as performing the most poorly of all the AvPD criteria (Blais & Norman, 1997; Hummelen, et al., 2006; Nestadt, et al., 2006; Sanislow, et al., 2002). Hummelen and colleagues (2006) have suggested that these results may be a result of difficulty assessing this trait; developing measures to better assess this construct is an important direction for future research, particularly in light of our findings in the present study. Additionally, further work replicating our results is needed to ensure that there is a true association between emotional guardedness and poor psychosocial functioning that generalizes to individuals with GSAD outside of our treatment-seeking study population.

Secondly, the study population consisted exclusively of treatment-seeking individuals with a primary diagnosis of GSAD and an LSAS score of 60 or higher who were eligible for a clinical trial. For this reason, our findings may not generalize to a community-based GSAD population, particularly those whose symptoms are less severe and those who are not actively seeking treatment. Future studies should seek to replicate our results among a community-based sample, rather than a treatment-seeking population, to determine the generalizability of our findings.

A third limitation is that our study did not include a group of individuals who met criteria for AvPD but not GSAD. Therefore, we are not able to comment on the utility of the diagnosis of avoidant personality disorder in the absence of generalized social anxiety disorder. Given that there is debate in the literature over whether such a population truly exists (Alpert, Uebelacker, McLean, & Nierenberg, 1997; Chambless, et al., 2008; Cox, et al., 2009; Jansen, Arntz, Merckelbach, & Mersch, 1994; Perugi, et al., 2001; Ralevski, et al., 2005; Renneberg, Chambless, & Gracely, 1992), it is important for future research to address this question using careful diagnoses by trained clinicians in a broad, population-based sample. If such a study finds no cases of AvPD in the absence of GSAD, it may be reasonable to conclude that while some features of AvPD are important, a binary diagnosis of avoidant personality disorder has little clinical utility beyond being a marker of severity in GSAD.

The cross-sectional nature of our study is a further limiting factor, as it disallows the interpretation of causality or directionality of our results. As previously mentioned, an interesting question for future research is to examine whether emotional guardedness, or endorsing item 3 on the AvPD criteria, predicts poor response to CBT among individuals with generalized social phobia. Our results suggest that assessing and better understanding emotional guardedness is important given its association with poorer psychosocial functioning. Interestingly, in contrast to other items of the AvPD diagnostic criteria, this construct is not included in the LSAS. Thus, one option would be to validate a modified version of the LSAS with the addition of questions from AvPD criteria assessing this construct. An additional limitation of the present study is that we did not calculate inter-rater reliability for the diagnostic process or the clinician-rated measures.

Based on our findings, we have a number of recommendations for the conceptualization of avoidant personality disorder and generalized social anxiety disorder in the upcoming DSM-V diagnostic manual. First, our results suggest that the diagnosis of avoidant personality disorder as currently configured should be reconsidered in the context of GSAD. However, the lack of an AvPD-only group within our sample constrains us from commenting on the utility of an AvPD diagnosis in the absence of GSAD. Secondly, we propose that the social anxiety disorder work group examine the utility of adding a specifier “with emotional guardedness” to the GSAD description in the DSM. In light of our findings that individuals who endorse this symptom have more psychosocial difficulties, we believe that it is important for clinicians to assess the presence of this symptom in the context of GSAD.

In summary, our results indicate that a binary diagnosis of AvPD alone may add little beyond a marker of greater GSAD severity and depression among patients with GSAD, while item 3 of the AvPD criteria (hard to be “open” even with people you’re close to) may offer additional information unmeasured by the gold standard measure of GSAD severity, the LSAS. Specifically, individuals who are more emotionally guarded even with close friends and relatives may have greater psychosocial impairment. Therefore, future research should investigate how best to assess and measure this construct, as well as examine the validity of this characteristic as a potential predictor of response to treatment. While additional research would be necessary, revisions to the GSAD diagnosis in DSM-V to formally designate whether emotional guardedness in close interpersonal relationships is present could provide a pathway for clinicians to consider this feature for individuals with GSAD.

Acknowledgments

Funded by NIH grants R01MH70919, R01MH70501, and R01MH70917, entitled “Improving Outcomes in Pharmacotherapy of Social Phobia.”

References

- Alpert JE, Uebelacker LA, McLean NE, Nierenberg AA. Social phobia, avoidant personality disorder and atypical depression: Co-occurrence and clinical implications. *Psychological Medicine: A Journal of Research in Psychiatry and the Allied Sciences*. 1997; 27(3):627–633.
- American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders; DSM-IV-TR*. 4. Washington, DC: American Psychiatric Association; 2000.
- Blais MA, Norman DK. A psychometric evaluation of the DSM-IV Personality Disorder criteria. *Journal of Personality Disorders*. 1997; 11(2):168–176. [PubMed: 9203111]
- Boone ML, McNeil DW, Masia CL, Turk CL, Carter LE, Ries BJ, et al. Multimodal comparisons of social phobia subtypes and avoidant personality disorder. *Journal of Anxiety Disorders*. 1999; 13(3):271–292. [PubMed: 10372342]

- Chambless DL, Fydrich T, Rodebaugh TL. Generalized social phobia and avoidant personality disorder: Meaningful distinction or useless duplication? *Depression and Anxiety*. 2008; 25(1):8–19. [PubMed: 17161000]
- Cox BJ, Pagura J, Stein MB, Sareen J. The relationship between generalized social phobia and avoidant personality disorder in a national mental health survey. *Depression and Anxiety*. 2009; 26(4):354–362. [PubMed: 19031488]
- Endicott J, Nee J, Harrison W, Blumenthal R. Quality of life enjoyment and satisfaction questionnaire: A new measure. *Psychopharmacology Bulletin*. 1993; 29(2):321–326. [PubMed: 8290681]
- First, MB.; Gibbon, M.; Spitzer, RL.; Williams, JBW.; Benjamin, LS. *Structured Clinical Interview for DSM-IV Axis II Personality Disorders, (SCID-II)*. Washington, D.C: American Psychiatric Press, Inc; 1997.
- Grilo CM, McGlashan TH. Convergent and discriminant validity of DSM-IV axis II personality disorder criteria in adult outpatients with binge eating disorder. *Comprehensive Psychiatry*. 2000; 41(3):163–166. [PubMed: 10834623]
- Grilo CM, McGlashan TH, Morey LC, Gunderson JG, Skodol AE, Shea MT, et al. Internal consistency, intercriteria overlap and diagnostic efficiency of criteria sets for DSM-IV schizotypal, borderline, avoidant and obsessive-compulsive personality disorders. *Acta Psychiatrica Scandinavica*. 2001; 104(4):264–272. [PubMed: 11722301]
- Heimberg RG, Horner KJ, Juster HR, Safren SA, Brown EJ, Schneier FR, et al. Psychometric properties of the Liebowitz Social Anxiety Scale. *Psychological Medicine: A Journal of Research in Psychiatry and the Allied Sciences*. 1999; 29(1):199–212.
- Herbert JD, Hope DA, Bellack AS. Validity of the distinction between generalized social phobia and avoidant personality disorder. *Journal of Abnormal Psychology*. 1992; 101(2):332–339. [PubMed: 1583228]
- Holt CS, Heimberg RG, Hope DA. Avoidant personality disorder and the generalized subtype of social phobia. *Journal of Abnormal Psychology*. 1992; 101(2):318–325. [PubMed: 1583226]
- Hummelen B, Wilberg T, Pedersen G, Karterud S. An investigation of the validity of the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition avoidant personality disorder construct as a prototype category and the psychometric properties of the diagnostic criteria. *Comprehensive Psychiatry*. 2006; 47(5):376–383. [PubMed: 16905400]
- Hummelen B, Wilberg T, Pedersen G, Karterud S. The relationship between avoidant personality disorder and social phobia. *Comprehensive Psychiatry*. 2007; 48(4):348–356. [PubMed: 17560956]
- Jansen MA, Arntz A, Merckelbach H, Mersch PPA. Personality disorders and features in social phobia and panic disorder. *Journal of Abnormal Psychology*. 1994; 103(2):391–395. [PubMed: 8040509]
- Kessler RC, Frank RG. The impact of psychiatric disorders on work loss days. *Psychological Medicine*. 1997; 27(4):861–873. [PubMed: 9234464]
- Liebowitz MR. Social phobia. *Modern Problems of Pharmacopsychiatry*. 1987; 22:141–173. [PubMed: 2885745]
- Maffei C, Fossati A, Agostoni I, Barraco A, Bagnato M, Deborah D, et al. Interrater reliability and internal consistency of the Structured Clinical Interview for DSM-IV Axis II Personality Disorders (SCID-II), version 2.0. *Journal of Personality Disorders*. 1997; 11(3):279–284. [PubMed: 9348491]
- Nestadt G, Hsu FC, Samuels J, Bienvenu OJ, Reti I, Costa PT Jr, et al. Latent structure of the diagnostic and statistical manual of mental disorders, fourth edition personality disorder criteria. *Comprehensive Psychiatry*. 2006; 47(1):54–62. [PubMed: 16324903]
- Perugi G, Nassini S, Maremmanni I, Madaro D, Toni C, Simonini E, et al. Putative clinical subtypes of social phobia: A factor-analytical study. *Acta Psychiatrica Scandinavica*. 2001; 104(4):280–288. [PubMed: 11722303]
- Pilkington CJ, Richardson DR. Perceptions of risk in intimacy. *Journal of Social and Personal Relationships*. 1988; 5(4):503–508.
- Ralevski E, Sanislow CA, Grilo CM, Skodol AE, Gunderson JG, Shea MT, et al. Avoidant personality disorder and social phobia: Distinct enough to be separate disorders? *Acta Psychiatrica Scandinavica*. 2005; 112(3):208–214. [PubMed: 16095476]

- Reich J. The relationship of social phobia to avoidant personality disorder: A proposal to reclassify avoidant personality disorder based on clinical empirical findings. *European Psychiatry*. 2000; 15(3):151–159. [PubMed: 10960264]
- Renneberg B, Chambless DL, Gracely EJ. Prevalence of SCID-diagnosed personality disorders in agoraphobic outpatients. *Journal of Anxiety Disorders*. 1992; 6(2):111–118.
- Rodebaugh TL, Gianoli MO, Turkheimer E, Oltmanns TF. The interpersonal problems of the socially avoidant: self and peer shared variance. *Journal of Abnormal Psychology*. 2010; 119(2):331–340. [PubMed: 20455606]
- Rothman KJ. No Adjustments Are Needed for Multiple Comparisons. *Epidemiology*. 1990; 1(1):43–46. [PubMed: 2081237]
- Sanislow CA, Morey LC, Grilo CM, Gunderson JG, Shea MT, Skodol AE, et al. Confirmatory factor analysis of DSM-IV borderline, schizotypal, avoidant and obsessive-compulsive personality disorders: Findings from the Collaborative Longitudinal Personality Disorders Study. *Acta Psychiatrica Scandinavica*. 2002; 105(1):28–36. [PubMed: 12086222]
- Sheehan DV, Harnett-Sheehan K, Raj BA. The measurement of disability. *International Clinical Psychopharmacology*. 1996; 11(Suppl 3):89–95. [PubMed: 8923116]
- Sheehan DV, Lecrubier Y, Sheehan KH, Amorim P, Janavs J, Weiller E, et al. The Mini-International Neuropsychiatric Interview (M.I.N.I.): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *Journal of Clinical Psychiatry*. 1998; 59(Suppl 20): 22–33. [PubMed: 9881538]
- van Velzen CJM, Emmelkamp PMG, Scholing A. Generalized social phobia versus avoidant personality disorder: Differences in psychopathology, personality traits, and social and occupational functioning. *Journal of Anxiety Disorders*. 2000; 14(4):395–411. [PubMed: 11043888]
- Zimet GD, Dahlem NW, Zimet SG, Farley GK. The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*. 1988; 52(1):30–41.

Highlights

- AvPD diagnosis was significantly associated with each outcome measure examined after adjustment for gender and age.
- After additionally controlling for GSAD symptom severity, AvPD diagnosis was no longer significant in any of the models.
- However, in univariate analyses, number of AvPD symptoms remained a significant predictor of most of the measured psychosocial outcomes.
- After adjustment for comorbid MDD, number of AvPD symptoms remained a significant predictor of interpersonal difficulties and poor quality of life.
- Although AvPD and GSAD share much variance, AvPD symptomatology has some unique identifiers that are not currently captured by a GSAD diagnosis.

Figure 1.
Frequency of patients with threshold/true response by item and AvPD diagnosis.

Figure 2A.

Figure 2B.

Figure 2.

Figure 2A. Partial correlations between AvPD Criteria Scale items and baseline covariates
 Figure 2B. Partial correlations between AvPD Criteria Scale items and baseline covariates, by AvPD diagnosis.

Note: The heights of the black bars represent partial correlations among patients with GSAD and AvPD, while the heights of the grey patterned bars represent partial correlations among patients with GSAD alone.

Table 1

DSM-IV Diagnostic Criteria for AvPD

1	Avoids occupational activities that involve significant interpersonal contact, because of fears of criticism, disapproval, or rejection
2	Is unwilling to get involved with people unless certain of being liked
3	Shows restraint within intimate relationships because of the fear of being shamed or ridiculed
4	Is preoccupied with being criticized or rejected in social situations
5	Is inhibited in new interpersonal situations because of feelings of inadequacy
6	Views self as socially inept, personally unappealing, or inferior to others
7	Is unusually reluctant to take personal risks or to engage in any new activities because they may prove embarrassing

Table 2

Baseline Characteristics of Analysis Population

(Baseline) Characteristic	No Avoidant PD (N=104)			Avoidant PD (N=222)			OVERALL (N=326)		
	N	%		N	%		N	%	χ^2 p-value
Gender:									
Male	65	63%		147	66%		212	65%	0.43 0.51
Race									
White	66	63%		172	77%		238	73%	11.47 0.022
Black / African American	9	9%		11	5%		20	6%	
Asian	7	7%		15	7%		22	7%	
American Indian / Alaska Native / First Nations	2	2%		0	0%		2	1%	
Other	20	19%		24	11%		44	13%	
Marital Status									
Single / Never married	60	58%		136	61%		196	60%	1.53 0.68
Married / Common law / Living with partner	29	28%		65	29%		94	29%	
Divorced / Separated	13	13%		16	7%		29	9%	
Widowed	2	2%		1	<1%		3	1%	
Missing/Unknown	0	0%		4	2%		4	1%	
Comorbidity									
Any Comorbid Anxiety Disorder ^a	30	29%		88	40%		118	36%	2.99 0.22
Comorbid MDD	16	15%		54	24%		70	21%	3.36 0.067
Mean	Mean	SD		Mean	SD		Mean	SD	t p-value
Age at Study Entry (years)	36.2	14.11		33.9	12.47		34.6	13.04	1.48 0.14
Number of Comorbidities ^b	1.6	0.83		1.9	1.12		1.8	1.05	-3.17 0.0017
LSAS Total	83.9	14.52		95.2	18.76		91.6	18.27	-5.93 <0.0001
RII Total	28.2	10.10		32.0	9.59		30.8	9.90	-3.18 0.0016
Sheehan Disability Scale: Total	14.8	5.69		17.2	5.24		16.4	5.49	-3.70 0.0003
Sheehan Disability Scale: Work	4.7	2.75		5.6	2.54		5.3	2.63	-2.72 0.0069
Sheehan Disability Scale: Social Life	6.6	1.91		7.4	1.87		7.2	1.92	-3.70 0.0003

(Baseline) Characteristic	No Avoidant PD (N=104)		Avoidant PD (N=222)		OVERALL (N=326)		χ^2	p-value
	N	%	N	%	N	%		
Sheehan Disability Scale: Family Life	3.5	2.70	4.2	2.46	4.0	2.56	-2.26	0.024
Q-LES-Q Total (% of maximum score)	0.8	0.23	0.7	0.26	0.7	0.26	3.39	0.0008
NCS-WIS Score	6.1	10.80	9.3	12.52	8.3	12.07	-2.21	0.028
MSPSS Overall Mean	4.6	1.12	4.4	1.20	4.5	1.18	1.80	0.074

^a Includes anxiety disorder with panic attacks, generalized anxiety disorder (GAD), panic disorder, agoraphobia, obsessive compulsive disorder (OCD), and post-traumatic stress disorder (PTSD).

^b Ranged from 1–4 among the No AvPD group, and 1–6 among the AvPD group; comorbidities present include MDD, anxiety disorder, panic disorder, agoraphobia, OCD, PTSD, GAD, mood disorder not otherwise specified, attention deficit hyperactivity disorder, and alcohol abuse/dependence.

Table 3

Association of avoidant personality disorder (diagnosis, yes/no) with baseline characteristics

Psychosocial Variable	APD ^a β Estimate	APD ^a Std. Error	APD ^a χ^2	APD ^a p-value
Model controls for Age & Gender				
Q-LES-Q Percent of Total	-0.1	0.03	10.14	0.0014 *
SDS: Total	2.3	0.64	12.51	0.0004 *
SDS: Work Subtotal	0.8	0.31	6.69	0.0097 *
SDS: Social Life Subtotal	0.8	0.22	12.41	0.0004 *
SDS: Family Life Subtotal	0.7	0.30	4.81	0.028 *
NCS-WIS Score	2.9	1.42	4.23	0.040 *
RII Total	3.9	1.15	11.31	0.0008 *

^aAPD was included as a dichotomous variable (Yes or No based on at least 4 of 7 symptoms endorsed)* APD is significant ($p < 0.05$)

Table 4

Association of Avoidant Personality Disorder (ordinal number of symptoms endorsed) with Baseline Characteristics

Psychosocial Variable	APD ^a β Estimate	APD ^a Std. Error	APD ^a χ^2	APD ^a p-value
Model controls for Age & Gender				
Q-LES-Q Percent of Total	-0.03	0.007	18.84	<0.0001 *
SDS: Total	0.8	0.16	25.09	<0.0001 *
SDS: Work Subtotal	0.2	0.077	9.04	0.0026 *
SDS: Social Life Subtotal	0.3	0.054	23.11	<0.0001 *
SDS: Family Life Subtotal	0.3	0.074	14.46	0.0001 *
NCS-WIS Score	1.1	0.35	10.55	0.0012 *
RII Total	1.4	0.28	26.10	<0.0001 *
MSPSS Mean	-0.1	0.034	12.81	0.0003 *
Model controls for Age, Gender, & LSAS Total				
Q-LES-Q Percent of Total	-0.02	0.007	4.22	0.040 *
SDS: Total	0.4	0.16	6.56	0.011 *
SDS: Social Life Subtotal	0.1	0.055	7.13	0.0076 *
RII Total	0.8	0.28	8.29	0.0040 *
MSPSS Mean	-0.1	0.036	6.18	0.013 *
Model controls for Age, Gender, LSAS Total, & Current MDD				
SDS: Total	0.4	0.15	5.94	0.015 *
SDS: Social Life Subtotal	0.1	0.055	6.72	0.0095 *
RII Total	0.8	0.28	7.63	0.0058 *
MSPSS Mean	-0.1	0.036	5.51	0.019 *

^a APD was included in the model as an ordinal variable (number of symptoms endorsed - out of 7 total)

* APD is significant ($p < 0.05$)