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The Relationship between Personality Functioning, Experiential Avoidance, and Mental Health in a Population with Personality Disorders

Selina Stahl

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University of Twente

Faculty of Behavioral Science

Education Positive Psychology & Technology

Tutor: Dr. F. Chakhssi

Dr. L. van Zyl

Abstract

Introduction: This study examined the relationship between personality functioning, experiential avoidance (EA), and mental health in participants with personality disorders, especially the mediating role of EA was studied. The relationship between these variables is important to get a better understanding of personality disorders. From a transdiagnostic view, EA may be an essential factor in personality disorders, because it showed to be a mediator between other mental disorders and mental health. Since most studies focused on borderline personality disorder (BPD), there is a gap in the research on the mediating role of EA in this relationship with respect to other personality disorders. *Method:* A cross-sectional survey based research design with 157 participants suffering from any personality disorder was used to gather the data. All three variables were measured by using questionnaires. *Results:* The results showed that personality functioning and EA had a significant negative association and EA and mental health showed a significant positive correlation. Furthermore, a full mediation of EA in the relationship between personality functioning and mental health in respondents with BPD was found. In participants with other personality disorders a partial mediation was found. *Discussion:* Thus, EA plays an important role in the relationship between personality functioning and mental health in patients with personality disorders. However, further research is recommended, because of the small sample size of personality disorders other than BPD, there is a need to gain further insights into the role of EA in different personality disorders.

Samenvatting

Introductie: In deze studie werd de relatie tussen persoonlijk functioneren, ervaringsontwijking (EA) en geestelijke gezondheid bij deelnemers met persoonlijkheidsstoornissen onderzocht, vooral de mediatorische rol van EA is onderzocht. De relatie tussen deze variabelen is belangrijk om inzicht te krijgen in de werking van persoonlijkheidsstoornissen. Uit een transdiagnostisch oogpunt zou EA een essentiële factor in persoonlijkheidsstoornissen zijn, omdat het bleek een mediator tussen andere psychische aandoeningen en geestelijke gezondheid te zijn. Aangezien dat de meeste onderzoeken gericht waren op borderline persoonlijkheidsstoornis (BPD), is er een kloof in het onderzoek naar de mediatorische rol van EA in deze relatie met betrekking tot andere persoonlijkheidsstoornissen. *Methode:* Een cross-sectionale onderzoeksdesign gebaseerd op vragenlijsten met 157 deelnemers die aan een persoonlijkheidsstoornis lijden, werd gebruikt om de data te verzamelen. Alle drie variabelen werden middels vragenlijsten gemeten. *Resultaten:* Uit de resultaten blijkt dat persoonlijk functioneren en EA een significante

negatieve associatie en EA en mentale gezondheid een significante positieve correlatie hadden. Bovendien werd een volledige mediatie van EA in de relatie tussen persoonlijk functioneren en geestelijke gezondheid bij respondenten met BPD gevonden. Bij deelnemers met andere persoonlijkheidsstoornissen werd een gedeeltelijke mediatie gevonden. *Discussie:* Zo speelde EA een belangrijke rol in de relatie tussen persoonlijk functioneren en geestelijke gezondheid in patiënten met persoonlijkheidsstoornissen. Echter, verder onderzoek wordt aanbevolen, vanwege de kleine steekproefgrootte van andere persoonlijkheidsstoornissen dan BPD is het nodig om verder inzicht te krijgen in de rol van EA in verschillende persoonlijkheidsstoornissen.

Content

Abstract	2
1. Introduction	5
1.1. Personality Disorders and Personality Functioning.....	6
1.2. Experiential Avoidance	7
1.3. Mental Health	9
1.4. The Mediating Role of Experiential Avoidance in the Relationship between Personality Functioning and Mental Health	11
1.5. Aim of the Study.....	12
2. Method	13
2.1. Design.....	13
2.2. Participants	13
2.3. Measures	14
2.3. Procedure	15
2.4. Data Analysis.....	16
3. Results	18
3.1. Descriptive Statistics	18
3.2. Correlational Analysis	18
3.3. Mediation Analysis of Personality Functioning, Experiential Avoidance, and Mental Health in Borderline Personality Disorder Participants	19
3.4. Mediation Analysis of Personality Functioning, Experiential Avoidance, and Mental Health in other Personality Disorders.....	20
4. Discussion	22
4.1. The Correlations of Personality Functioning, Experiential Avoidance, and Mental Health.....	22
4.2. The Mediator Role of Experiential Avoidance in Participants with Borderline Personality Disorder	23
4.3. The Mediator Role of Experiential Avoidance in Participants with Other Personality Disorders.....	23
4.4. Limitations and Recommendations	24
5. Conclusion.....	26
6. References	27

1. Introduction

Personality disorders (PDs) are common, with a prevalence of 7% to 14% in the general population (Torgersen, Kringlen, & Cramer, 2001). A review demonstrated that the prevalence of PDs in different nations, such as the United States, Great Britain, Western Europe, Norway, and Australia is ranging from 4.4% to 21.5%. Having any PD increases healthcare utilization (Quirk et al., 2016). A recent study in the Netherlands found that the severity of borderline personality disorder (BPD) is positively correlated with the use of healthcare services (Ten Have et al. 2016). Other studies have also shown that people with personality disorders often use heavy healthcare services, like emergency hospitalization (Cailhol, Thalamas, Birmes, & Lapeyre-Mestre, 2014; Bender et al., 2001; MacLean, Xu, French, & Ettner, 2014). The high prevalence of PDs in the general population and the great utilization of healthcare services, which are cost-intensive, illustrates the importance of further studying this population. Most of the PDs research has been conducted on people with BPD, because this is the most prevalent and severe PD (Iverson, Follette, Pistorello, & Fruzzetti, 2012; Cavicchioli, Rugi, & Maffei, 2015). Other PDs were studied only few. Therefore, this research focuses on PDs other than BPD also.

An important factor in people with PDs is personality functioning, which is used to diagnose and assess personality disorders severity (Tyrer, Reed, & Crawford, 2015). Patients with more impairments in personality functioning are labeled as having a more severe PD. The severity of a PD and therefore also the personality functioning of patients, were found to have an important impact on a person's life (e.g. causing psychosocial problems, comorbidity with other mental disorders and physical health issues) (Oltmanns, Rodrigues, Weinstein, & Gleason, 2014; Skodol et al., 2005a). Psychosocial problems, personal impairments, and comorbidity are categorized as mental health issues, which are associated with the personality functioning of individuals (Gunderson et al., 2004; Koenigsberg et al., 2001; Skodol et al., 2002).

Another important factor of people with PDs is the avoidance of people's inner experiences, known as experiential avoidance (EA). Especially, there seems to be a strong relationship between the BPD severity and EA (Iverson, Follette, Pistorello, & Fruzzetti, 2012; Cavicchioli, Rugi & Maffei, 2015; Schramm, Venta, & Sharp, 2013). But also in samples with PDs other than BPD, EA seemed to play a role (Wheaton & Pinto, 2016; Yavuz, Şahin, Ulusoy, İpek, & Kurt, 2016). Furthermore, EA and mental health were found to be related (Fledderus, Bohlmeijer, & Pieterse, 2010; Chawla & Ostafin, 2007). Experiential avoidance predicted the amount of psychological distress and had relationships with other

mental disorders (Chawla & Ostafin, 2007).

However, not all patients with PDs suffer equally from their disorder. There are fluctuations in the stability of PDs in time (Tyrer, Reed, & Crawford, 2015). People with PDs have varying amounts of mental health problems in time, although there were no changes in the personality functioning (Bateman, & Tyrer, 2004). According to a transdiagnostic approach, EA may influence the fluctuations in mental health problems, as a mediator, as has been found in other mental disorders (Spinhoven, Drost, de Rooij, van Hemert, & Penninx, 2014). Thus, EA may be an underlying psychological process in the relationship between personality functioning and mental health (Sharp, Kalpakci, Mellick, Venta, & Temple, 2014). There are even few suggestions that EA mediates the impact of personality functioning on mental health (e.g. Iverson, Follette, Pistorello, & Fruzzetti, 2012; Cavicchioli, Rugi, & Maffei, 2015; Schramm, Venta, & Sharp, 2013). This mediation may be essential for understanding PDs. Therefore, the purpose of this paper was to investigate the relationship between personality functioning, EA and mental health of individuals suffering from PDs. Specifically, the mediating role of EA in this relationship is examined.

1.1. Personality Disorders and Personality Functioning

A personality disorder is “a pervasive pattern of maladaptive traits and behaviors beginning in early adult life, leading to substantial personal distress or social dysfunction, or both, and disruption others” (Tyrer, Reed, & Crawford, 2015, p. 718). This means that the core features of PDs are a persistent pattern of dysfunctional personality traits and behaviors (e.g. problems in impulsivity control). In the fourth version of the Diagnostic and Statistic Manual of mental disorders (DSM-IV) PDs are arranged in three clusters: Cluster A (paranoid, schizoid, and schizotypal), Cluster B (antisocial, borderline, histrionic, and narcissistic), and Cluster C (avoidant, dependent, and obsessive-compulsive) (American Psychiatric Association, 2000). Recently, there have been discussions about this categorical categorization of PDs, because the different PDs overlap with each other and cannot be classified as clearly distinct disorders. Instead, different PDs should be classified using a dimensional approach (Thylstrup, Simonsen, Nemery, Simonsen, Noll, Myatt, & Hesse, 2016).

The dimensional approach means that PDs should be characterized by the level of personality functioning. In this approach, PDs are understood as extreme forms of personality traits on a dimension (Trull & Durrett, 2005 as cited in Ozer & Benet-Martínez, 2006). To diagnose a PD according to this categorization, the severity of PDs is assessed by measuring the level of personality functioning (Bender, Morey, & Skodol, 2011). Therefore, personality

functioning is a crucial factor in PDs. Verheul et al.'s (2008) framework for personality functioning that approaches PDs dimensionally, consists of five core features: the first feature, "self-control" describes emotional regulation as the tolerance and ability to control impulses and emotions. A second feature is "identity integration," meaning the ability to see one's identity as coherent and purposive. The third feature, "responsibility," is the ability to be responsible for one's own activities. The fourth feature, "relational capacities," describes the capacity to establish and maintain intimate relationships. Finally, "social concordance" is the ability to respect and work with others (Verheul et al., 2008).

Each of these features are prevalent in people diagnosed with PDs to some degree; which is dependent on the severity of its manifestation (Verheul et al., 2008). For example, Skodol et al. (2005a) found that participants with borderline, avoidant, schizotypal, and obsessive-compulsive PDs have impairments in maintaining relationships. In the same study, borderline and schizotypal PDs were found to have serious work problems, such as working with other people. Furthermore, self-control impairments, such as impulsivity, were more present in antisocial and borderline PD (Fossati, Barratt, Carretta, Leonardi, Grazioli, & Maffei, 2004). Moreover, a failure of responsibility was more present in patients with antisocial PD (Hare, Hart, & Harpur, 1991). Additionally, Jørgensen (2009) found that individuals with BPD have more often problems with their identity integration, than individuals without any PD. In sum, different PDs displayed different impairments in personality functioning in varying levels.

Several factors were found to influence personality functioning in individuals with PDs, such as maladaptive coping (Ireland, Brown, & Ballarini, 2006); emotion dysregulation (Neacsiu, Rizvi, & Linehan, 2010); and distress tolerance (Iverson, Follette, Pistorello, & Fruzzetti, 2012). Experiential avoidance is gaining increasing attention as an important factor in the understanding of personality psychopathology (Fledderus, Bohlmeijer, & Pieterse, 2010; Chawla & Ostafin, 2007). More recent studies have demonstrated that EA plays an important role in patients with PDs, especially with BPD (Cavicchioli, Rugi, & Maffei, 2015).

1.2. Experiential Avoidance

According to Hayes, Wilson, Gifford, Follette, and Strosahl (1996, p. 1156): EA "is the phenomenon that occurs when a person is unwilling to remain in contact with particular private experiences [...] and takes steps to alter the form or frequency of these events and the contexts that occasion them." This means that an individual, who does not want to experience negative emotions, thoughts, physical sensations, or memories of personal affairs, avoids these in different ways. Examples of the means employed are thought suppression, emotional

suppression, and avoidance coping (Chawla & Ostafin, 2007).

Experiential avoidance methods are effective in the short term, but problems occur in the long term (Gold & Wegner, 1995 cited in Fledderus, Bohlmeijer, & Pieterse, 2010). Emotional suppression was found to be associated with poor psychological health (Gross, 2004, as cited in Chawla & Ostafin, 2007). For example, if an individual experiences anxiety, there is a willingness to suppress the anxiety to avoid the negative consequences of the feared situation. However, by suppressing the fear, the individual runs the risk of developing a fear of the fear. Thus, EA can explain the development of a panic disorder (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). The avoidance of personal experiences has further negative consequences. For example, after the suppression of fear, only a few stimuli are needed to evoke the feeling of fear. Experiential avoidance restricts the freedom of the individual, because much energy is spent in the avoidance. Additionally, by avoiding personal experiences, access to them becomes limited (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Finally, as illustrated in the example of emotional suppression, EA seemed to have an influence on the development of psychopathologies. Also, in PDs, EA plays a role (Iverson, Follette, Pistorello, & Fruzzetti, 2012; Wheaton & Pinto, 2016; Yavuz, Şahin, Ulusoy, İpek, & Kurt, 2016).

To date, only a few studies have been published that have examined the role of EA in personality disorders and of these BPD has most often been studied (Iverson, Follette, Pistorello, & Fruzzetti, 2012; Cavicchioli, Rugi & Maffei, 2015; Schramm, Venta, & Sharp, 2013). One study examined the relationship between EA, distress tolerance, and emotion dysregulation with the amount of BPD symptoms. The results showed that emotion dysregulation and EA have a significant correlation with the BPD symptom severity. Experiential avoidance alone accounted for 50% of the variances in BPD symptom severity (Iverson, Follette, Pistorello, & Fruzzetti, 2012). Similar results were gained from Schramm, Venta, and Sharp (2013), individuals with more BPD symptoms have higher levels of EA. Cavicchioli, Rugi, and Maffei (2015) also showed a high correlation between EA and BPD symptom severity. Therefore, they argued that the avoidance of personal experiences should be a core feature of BPD. Although, several studies have shown the association between EA and BPD severity, the question remains whether this applies for other PDs.

Only a few studies have examined the role of EA in other PDs besides BPD (Wheaton & Pinto, 2016; Yavuz, Şahin, Ulusoy, İpek, & Kurt, 2016). Wheaton and Pinto (2016) showed that EA has a significant correlation with obsessive-compulsive PD, that is, participants with obsessive-compulsive PD showed higher levels of EA compared to

respondents without any obsessive-compulsive PD. Also, they found a relationship between EA and the severity of obsessive-compulsive PD (Wheaton & Pinto, 2016). Yavuz, Şahin, Ulusoy, İpek, and Kurt (2016) found higher scores of EA in people with antisocial PD than those without antisocial PD. Moreover, the results showed a relationship between EA and mental health. Higher scores of EA were associated with lower scores on social functioning and higher scores in personal distress. To conclude, there is some evidence that EA plays a role in other PDs than BPD. Additionally, there is some evidence that EA has an association with mental health, such as social functioning in people with PDs.

EA has an impact on mental health (Fledderus, Bohlmeijer, & Pieterse, 2010; Chawla & Ostafin, 2007). Chawla and Ostafin (2007) synthesized 29 studies that examined the relationship between EA and psychopathology. Experiential avoidance showed to be a significant predictor of general psychological distress in a sample of patients with post-traumatic stress disorder. Another study demonstrated that by reducing EA, mental health is affected positively (Berking, Poppe, Luhmann, Wupperman, Jaggi, & Seifritz, 2012). Furthermore, Williams, Ciarrochi, and Deane (2010) found that techniques based on acceptance, which is the positive equivalent to EA, predicted the mental health status of a population of police recruits. In summary, there seems to be evidences that EA has an impact on mental health. Mental health is conceptualized in the following section.

1.3. Mental Health

According to Lambert et al. (1996, as cited in Umphress, Lambert, Smart, Barlow & Clouse, 1997), mental health of people with mental disorders is defined as general psychological distress, which is sensitive to changes. On this basis, mental health include a broad area of issues respective the severity of mental disorders as well as the well-being of individuals in relationships and the society (Hatfield & Ogles, 2004). Lambert and Hall (1994; as cited in Umphress, Lambert, Smart, Barlow & Clouse, 1997) argued for three central components of mental health: “symptom distress”, “interpersonal relations” and “social role”. Symptom distress comprises the presence of, and suffering from, symptoms of common mental disorders, such as depression, anxiety, or drug abuse (Wells, Burlingame, Lambert, Hoag, & Hope, 1996). The second component, interpersonal relations, is based on the measurement of life satisfaction, and concerns the quality of relationships with others, such as family and friends (Wells, Burlingame, Lambert, Hoag, & Hope, 1996). Finally, the social role component addresses functioning at work, in the family, and during leisure time (Wells, Burlingame, Lambert, Hoag, & Hope, 1996). These components are relevant in monitoring of the progress of mental disorders, such as personality disorders (Hatfield &

Ogles, 2004). The “Outcome Questionnaire 45” (Lambert et al., 1996) consists of the three components, described above, and is used therefore further in this paper to monitoring mental health of people with personality disorders.

In samples of individuals with PDs, diverse mental health problems were found (Skodol et al., 2005a; Tyrer, Reed, & Crawford, 2015; Jackson, & Burgess, 2000). In sense of the symptom distress component, people with PDs have a high comorbidity with other mental disorders (Skodol et al., 2005a; Tyrer, Reed, & Crawford, 2015). For example, social phobia was found to have an association with avoidant and dependent PD, and BPD had a high association with mood disorders (Skodol et al., 2005a). Skodol et al. (2005a) found that people with personality disorders have difficulties in making and maintaining of social relationships. Additionally, individuals with PDs were found to have impairments at work (Skodol et al., 2005a). Furthermore, Jackson and Burgess (2000) found that participants with PDs have more mental health problems than people without. In sum it is shown that it is common for individuals with PDs to suffer from mental health problems. Additionally, more severe PDs seem to have more mental health problems (Gunderson et al., 2004; Koenigsberg et al., 2001; Skodol et al., 2002). Thus, there seems to be a relationship between PDs and mental health, as shown next.

Previous studies found a relationship between the severity of PDs and, therefore, between personality functioning, and mental health, especially in patients with BPD (Gunderson et al., 2004; Koenigsberg et al., 2001), but with PDs other than BPD also (Skodol et al., 2002; Miller, Widiger, & Campbell, 2010). Concerning the symptom distress component of mental health, a longitudinal research showed that BPD severity is predictive for depression symptoms (Gunderson et al., 2004). Koenigsberg et al. (2001) discovered that the self-control facet of personality functioning correlates with the quality of interpersonal relationships in people with BPD. Also, the personality functioning of PDs other than BPD showed to have an association with mental health. Therefore, Skodol et al. (2002) found that more severe personality functioning problems in PDs, such as schizotypal PD, are linked to functional impairments such as symptom distress and social relationships. Finally, the relational personality functioning of patients with narcissistic PD is associated with psychological distress and, especially, impairments in social relationships (Miller, Widiger, & Campbell, 2010). Borderline personality disorder severity, as well as the severity and personality functioning of other PDs, have a significantly negative impact on mental health.

As stated earlier, the amount of mental health problems can vary regardless changes in the severity of PDs (Bateman, & Tyrer, 2004). Lenzenweger, Johnson, and Willett (2004)

showed that the personality functioning of respondents with PDs are not stable and that changes of the comorbidity with other mental disorders could not be explained by changes in the PDs. This shows that although the personality functioning and mental health of people with PDs are related, mental health can vary regardless of changes in the personality functioning. It is important to investigate what influences and causes this fluctuation, because it could help to understand PDs and improve their mental health status. In sum, it was shown that personality functioning of patients with PDs and mental health are related. But there was room for a mediation, because of the fluctuations of the mental health status, regardless changes in personality functioning. This model is discussed in the following.

1.4. The Mediating Role of Experiential Avoidance in the Relationship between Personality Functioning and Mental Health

From a transdiagnostic view, EA is assumed to be a mediator in the relationship between personality functioning and mental health in patients with PDs (Spinhoven, Drost, de Rooij, van Hemert, and Penninx (2014). This means that a specific psychological process underlies general mental disorder, and that it should be considered in the different processes and their factors, instead of a specific disorder. Following this line of argument, EA could be a mediator in the relationship between personality functioning and mental health, because it was shown to play a mediating role in other mental disorders (Orcutt, Pickett, & Pope, 2005; Fledderus, Bohlmeijer, & Pieterse, 2010; Marx & Sloan, 2002).

In addition to the transdiagnostic view, there were few evidences for EA to be a mediator, especially in patients with BPD (Schramm, Venta, & Sharp, 2013; Gratz, Tull, & Gunderson, 2009; Sharp, Kalpakci, Mellick, Venta, & Temple, 2015). Experiential avoidance was found to partially mediate the relationship between difficulties in emotion regulation and BPD symptoms (Schramm, Venta, & Sharp, 2013). Gratz, Tull, and Gunderson (2009) found that the association between anxiety sensitivity and BPD is mediated by EA. Sharp, Kalpakci, Mellick, Venta, and Temple (2015) found that EA is a predictor of BPD features, depression, and anxiety symptoms. This indicated that the relationship between depression and anxiety symptoms with BPD was only observed in combination with EA. These findings suggest that EA mediates the relationship between BPD symptoms and mental health. Similarly, another study found that EA is a mediator in the relationship between BPD symptom severity and psychopathology (Jacob, Ower, & Buchholz, 2013). However, EA did not mediate the relationship between BPD severity and self-harm frequency (Chapman, Specht, & Cellucci, 2005). Thus, the role of EA as a mediator is not conclusive, and requires further investigation (Chawla & Ostafin 2007).

According to the current literature, there is a research gap when examining EA as a mediator in the relationship between personality functioning and mental health in patients with other PDs than BPD. Again, from a transdiagnostic view, EA is assumed to play a role in PDs other than BPD also.

1.5. Aim of the Study

The purpose of this study is to investigate the relationship between personality functioning, experiential avoidance, and mental health in a sample of individuals diagnosed with personality disorders. Specifically, this study aims to investigate the potential mediating role of EA in different personality disorders. The following hypotheses will be tested in order to determine the relationships amongst the variables:

H₁. Personality functioning has a negative correlation with experiential avoidance.

H₂. Experiential avoidance has a positive correlation with mental health.

H₃. The relationship between personality functioning and mental health is mediated by experiential avoidance in patients with borderline personality disorder.

H₄. The relationship between personality functioning and mental health is mediated by experiential avoidance in patients with personality disorders other than borderline personality disorder.

2. Method

2.1. Design

The data of this study is based on an ongoing study. Only part of the data is used, which were gathered by a cross-sectional survey-based research design. Personality functioning was the independent and mental health the dependent variable, while EA was accounted as a mediator.

2.2. Participants

The participants were recruited through purposive sampling. Only those who met the DSM IV criteria for at least one personality disorder were recruited. Furthermore, an inclusion criterion was treatment resistance. This means that the participants had received outpatient psychological treatment, which was offset, and were re-referred by an experienced clinician (Clarke, Kingston, Wilson, Bolderston, & Remington, 2012). Participants, who met the DSM-IV criteria for borderline intellectual functioning (V62.89) or DSM IV disorders, such as schizophrenia, psychotic disorders, and pervasive developmental disorders, were excluded from this study. In total 495 patients participated in this study. Due to missing cases, 344 participants were excluded from the analysis. The age of the respondents ($N = 157$) ranged from 19 to 60 years ($M = 33.94$, $SD = 9.31$). Table 1 provides an overview of gender and the appearance of different personality disorders according to the SCID-II. The most common personality disorder after ‘PD not otherwise specified’ was BPD.

Table 1. Characteristics of Gender and Personality Disorders in Frequency and Percentage

Characteristics	Frequency	Percentage (%)
Gender		
Men	39	24.84
Woman	118	75.16
Personality Disorder		
Obsessive-compulsive PD	7	4.46
Dependent PD	1	0.64
Narcissistic PD	1	0.64
Avoidant PD	25	15.92
Borderline PD	45	28.66
PD not otherwise specified	76	48.41

2.3. Measures

DSM IV Pathologies. The Dutch version of the Structured Clinical Interview for DSM-IV Axis-II Disorders (SCID-II; First, Gibbon, Spitzer, & Williams, 1996) was used to determine the DSM IV PDs. The SCID-II is a semi-structured interview. It was constructed in modules in accordance with the DSM IV Axis II disorders: antisocial, paranoid, schizoid, schizotypal, obsessive-compulsive, histrionic, dependent, narcissistic, avoidant, and borderline PD and PD not otherwise specified. For each module, the questions were framed around the specific symptoms. The interviewer rated these questions as *present*, *subliminal present*, *not present*, and *not to judge*. But, at first, the participants completed a screening questionnaire. Then the interviewer asked only about the categories of PDs that had been marked with “yes” in the screening questionnaire. The internal consistency of the Dutch version of the SCID II was sufficient and the inter-rater reliability was moderate to excellent (Lobbestael, Leurgens, & Arntz, 2011).

Personality Functioning. The Dutch version of the Severity Indices of Personality Problems (SIPP-SF; Verheul et al., 2008) was used to measure personality functioning. The SIPP-SF is a short form of the SIPP- 188 (Verheul et al., 2008). It is a self-reported questionnaire designed to measure the severity of PDs and elements of (mal)-adaptive personality functioning. The SIPP-SF consisted out of 60 items equally distributed over five scales: self-control, identity integration, responsibility, relational capacities, and social concordance. An example of self-control was: “Sometimes I get so overwhelmed that I can’t control my reactions”; For identity integration: “I strongly believe that I am just as worthy as other people”; For responsibility: “I often fail to get a job done because I didn’t try hard enough”; For relational capacities: “It is hard for me to show affection to other people”; And for social concordance: “It is hard for me to respect people who have ideas that are different from mine”. The items were rated on a scale from 1 (*least adaptive*) to 4 (*most adaptive*). Higher scores on the scales meant better levels of functioning. The Dutch version of the SIPP-118 has good reliability and validity (Verheul et al., 2008). In this study, the reliability of the total scores and subscale scores of the SIPP-SF were good, according to Cronbach’s α with 0.95 (Self-control: $\alpha = 0.90$; Identity integration: $\alpha = 0.91$; Responsibility: $\alpha = 0.83$; Relational capacity: $\alpha = 0.88$ and Social concordance: $\alpha = 0.84$).

Experiential Avoidance. The study used the second, Dutch version of the Acceptance and Action Questionnaire (AAQ-II; Bond et al., 2011) to measure experiential avoidance. The AAQ-II is a self-reported questionnaire designed to measure acceptance, psychological inflexibility, and EA, which are considered to be the same construct on one dimension. It consisted of 10 items, which were narrowed down to seven items. An example item was, “My

painful memories prevent me from having a fulfilling life”. The items were rated on a 7-point-Likert scale ranging from 1 (*never true*) to 7 (*always true*). The participants were asked to identify the degree to which they agreed with a statement. High scores indicated high levels of general acceptance and low levels of EA. For better interpretation, the items in this study were rescaled, so that higher scores on this scale meant higher levels of experiential avoidance and lower levels of acceptance. The psychometric quality of the AAQ-II was adequate (Jacobs, Kleen, De Groot, & A-Tjak, 2008). In this study, the reliability of the seven item version was high, according to Cronbach’s α with 0.89.

Mental health. The Dutch version of the Outcome Questionnaire (OQ-45; Lambert et al., 1996) was used to measure the mental health variable. The OQ-45 is a self-reported questionnaire to assess psychological distress. In total, the questionnaire contained 45 items, distributed across three sub-scales. One scale measured the symptom distress, such as anxiety and depression severity, and consisted of 25 items. An example item was, “I have thoughts of ending my life”. The second scale measured the quality of the interpersonal relationships, such as conflicts with others, family difficulties and loneliness, and consisted of 11 items. An example item was, “I feel lonely”. The final scale, social role, contained nine items and measured difficulties at school or work. An example item was, “I feel stressed at work/school”. The items asked how the participants felt over the last week and were scored on a 5- point Likert scale starting from 0 (*never*) to 4 (*almost always*). The items 1, 12, 13, 20, 21, 24, 31, 37 and 43 had to be rescaled. The total score was calculated by summing up all the 45 items. Higher scores indicated poorer functioning. Moreover, sub-scores were calculated for the three subscales by summing up the subscale items. Higher scores on the subscales indicated higher symptoms of distress and greater difficulties in interpersonal relationships and social role. The psychometric quality for the Dutch version of the OQ-45 is adequate (De Jong, Nugter, Pollak, Wagenborg, Spinhoven, & Heiser, 2008). The entire questionnaire was highly reliable ($\alpha = 0.93$). Two subscales were high to moderately reliable (Symptom distress: $\alpha = 0.93$, Interpersonal relationship: $\alpha = 0.76$). Only the social role subscale was of questionable reliability ($\alpha = 0.67$).

2.3. Procedure

The participants were recruited from referrals to a specialist clinic for patients with PDs. Therefore, the respondents were contacted based on their consecutive admissions to specialized centers from 2013 to 2015. If they met the inclusion criteria, described above, they were asked to participate, and their informed consent was sought. Six of them were excluded, because they met the exclusion criteria. The SCID II was conducted once the

participants agreed. This was done by Master's psychology students, who were trained and supported by certified clinical psychologists. The respondents were then given the AAQ-II, SIPP-SF and OQ-45 to complete. These questionnaires formed the baseline measurement of the study. The data collection process ended at this stage, and the information gathered was used for further analysis.

2.4. Data Analysis

IBM SPSS version 22 (2016) was employed to process the data. First, the total score of the variables personality functioning, EA, and mental health were prepared. Then the reliability of the different scales was tested by analyzing the Cronbach's alpha. A reliability of $\alpha > 0.9$ was assumed to be excellent, $\alpha > 0.8$ good, $\alpha > 0.7$ acceptable, and $\alpha > 0.6$ questionable (Cronbach, 1951). Then the data was screened for extreme scores on the SIPP-SF, AAQ-II and OQ-45 scales, and the extreme scores were excluded from the data. Next, the mean and standard deviation of the variables personality functioning, EA, and mental health were explored. These variables were tested for normal distribution using histograms, kurtosis, and skewness analysis. A skewness and kurtosis of $> \pm 1$ was assumed to be a non-normal distribution. All variables were normally distributed.

To test the first and the second hypothesis, a correlational analysis was performed with the variables personality functioning, EA, and mental health. All the variables were normally distributed; therefore, a Pearson correlation (r) was estimated. The significance level was set at 0.05. A Pearson correlation between 0.1 and 0.3 was assumed to be a small correlation, between 0.3 and 0.5 a moderate correlation and above 0.5 a strong correlation (Cohen, 1988).

The third hypothesis was tested using the Hayes and Preacher (2014) analysis PROCESS. Therefore, the direct, indirect, and total effects in participants with BPD were assessed by examining three regression models. The first regression model contained EA as dependent variable, and personality functioning as independent variable. The second regression model had mental health as an outcome variable, and EA and personality functioning as independent variables. Finally, a regression model was employed with mental health as a dependent variable, and personality functioning as an independent variable. All the regression models used standardized variables to get standardized regression coefficients. A significance level of 0.05 was used. To speak of a mediation, the following conditions had to be fulfilled. First, the independent variable (personality functioning) had to be a predictor of the mediator variable (EA). Second, the mediator (EA) had to predict the dependent variable (mental health), in the presence of the independent variable (personality functioning). Third, the total effect had to be significant, meaning the independent variable (personality

functioning) had to predict the dependent variable (mental health), ignoring the mediator (EA). For a full mediation, in the presence of the mediator, the last prediction had to be not significant (direct effect). For a partial mediation, the last prediction had to be reduced, but significant. Finally, to discover whether EA was a mediator, a Sobel test was performed (Sobel, 1982). This test implied a significant indirect effect of the relationship between personality functioning and mental health.

To test the fourth hypothesis, the same steps, as in the third hypothesis were repeated, in a separate sample with all other PDs besides BPD. For all mediation analysis, the effect size (f^2) was estimated.

3. Results

3.1. Descriptive Statistics

Table 2 shows the means and standard deviations of the scales measuring personality functioning, EA, and mental health. Based on the possible range, the total score of personality functioning was high. Thus, the respondents had a high level of personality functioning, with a single half standard deviation above the mean. The mean score of EA was one standard deviation higher than the mean, according to the possible range. Thus, the respondents had a high level of EA and a low level of general acceptance. The score for the mental health questionnaire was averaged, based on the possible range.

Table 2. Means and Standard Deviations of the Scales Measuring Personality Functioning, Experiential Avoidance and Mental Health

Measures (Range)	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>
Personality Functioning Total (60 – 240)	158.09	26.14	0.05	-0.47
Experiential Avoidance Total (7 – 49)	32.16	7.05	-0.42	0.29
Mental Health Total (0 – 180)	85.63	22.32	-0.52	0.16

3.2. Correlational Analysis

According to the first hypothesis, personality functioning is assumed to have a negative correlation with EA. Table 3 displays the Pearson's correlations between EA, personality functioning and mental health. The correlational analysis showed that the scales of personality functioning had a significant negative correlation with EA ($r = -0.39, p < 0.05$). Therefore, the first hypothesis is accepted.

The second hypothesis assumed that mental health has a positive correlation with EA. The results showed that EA and mental health had a strong, significant, positive correlation ($r = 0.74, p < 0.05$). Hence, the second hypothesis is accepted also.

Additionally, the results found a significant negative correlation between personality functioning and mental health ($r = -0.46, p < 0.05$).

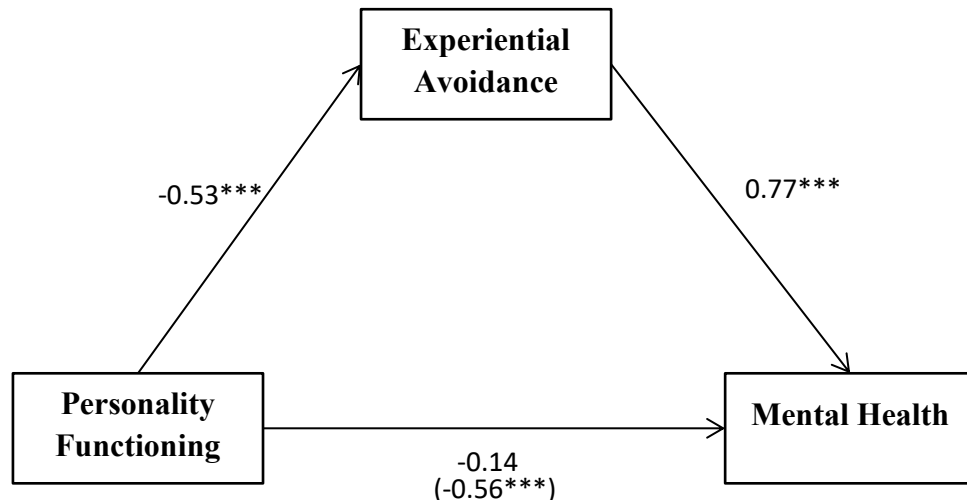
Table 3. Correlations of Personality Functioning and Measures of Mental Health and Experiential Avoidance

Measures	1	2	3
1. Personality Functioning Total	-	-	-
2. Experiential Avoidance Total	-.39**	-	-
3. Mental Health Total	-.46**	.74**	-

Note. **. Correlation is significant at the 0.01 level.

3.3. Mediation Analysis of Personality Functioning, Experiential Avoidance, and Mental Health in Borderline Personality Disorder Participants

According to the third hypothesis, the relationship between personality functioning and mental health is mediated by EA in participants with borderline personality functioning. Figure 1 provides an overview of the mediation analysis. The results found that personality functioning was a significant predictor of experiential avoidance ($b = -0.53$, $SE = 0.14$, $t(43) = -3.88$, $p < 0.05$) and that EA was a significant predictor of mental health ($b = 0.77$, $SE = 0.08$, $t(43) = 10.19$, $p < 0.05$). The total effect of personality functioning on mental health was significant ($b = -0.56$, $SE = 0.13$, $t(43) = -4.49$, $p < 0.05$). This supports the mediation hypothesis. A Sobel test analyzed the indirect effect. The results found that the indirect coefficient was significant ($z = -3.61$, $p < 0.05$). Thus, EA was a significant mediator in the relationship between personality functioning and mental health. After controlling for EA, personality functioning was no longer a predictor of mental health ($b = -0.15$, $SE = 0.08$, $t(43) = -1.93$, $p = 0.06$). Therefore, a complete mediation occurred. The effect size was high with $f^2 = 0.73$. Approximately 80% of the variances of mental health was accounted for the predictor EA ($R^2 = 0.80$). Thus, the third hypothesis is accepted.



Note. ***. Correlation is significant at the 0.005 level.

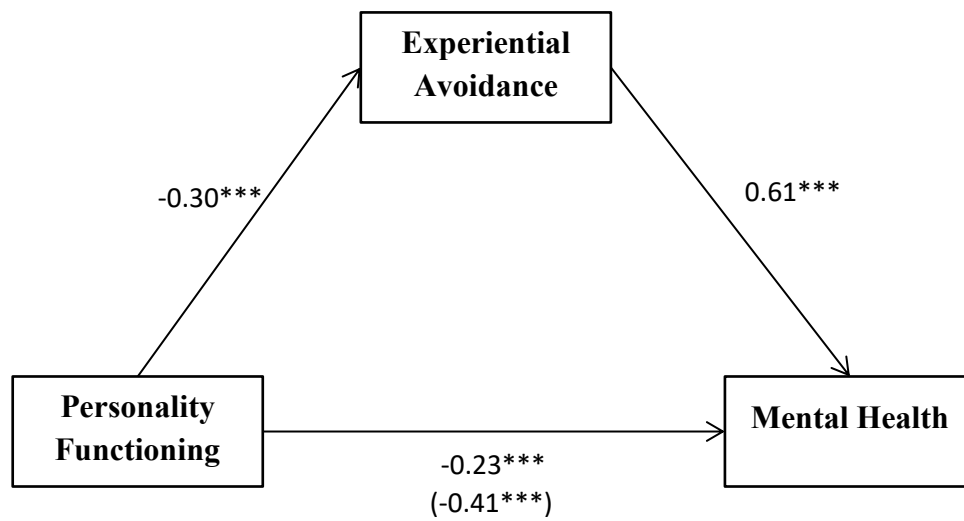
N= 45

Figure 1. Overview of Mediation Analysis of Personality Functioning, Experiential Avoidance, and Mental Health in Participants with Borderline Personality Disorder

3.4. Mediation Analysis of Personality Functioning, Experiential Avoidance, and Mental Health in other Personality Disorders

The fourth hypothesis assumed that the relationship between personality functioning and mental health is mediated by EA in participants with PDs other than BPD. The results showed that EA was a mediator in the relationship between personality functioning and mental health, accounting for all the PDs other than BPD, as illustrated in figure 2.

Personality functioning was found to be a significant predictor of EA ($b = -0.30$, $SE = 0.08$, $t(43) = -3.39$, $p < 0.05$). Experiential avoidance was shown to be a significant predictor of mental health ($b = 0.61$, $SE = 0.08$, $t(43) = 8.09$, $p < 0.05$). In addition, the total effect of personality functioning on mental health was significant ($b = -0.41$, $SE = 0.09$, $t(43) = -4.69$, $p < 0.05$). This supported the mediational hypothesis. A Sobel test indicated a significant indirect effect of personality functioning on mental health ($z = -3.11$, $p < 0.05$). Thus, mediation occurred. Personality functioning was a significant predictor even after controlling for EA ($b = -0.23$, $SE = 0.07$, $t(43) = -3.13$, $p < 0.05$). As the direct effect of personality functioning on mental health was significant after controlling for the mediator, a partial mediation was found. The effect size was high with $f^2 = 0.44$. Approximately, 48% of the variances of mental health were predicted by personality functioning and EA ($R^2 = 0.48$). Therefore, the fourth hypothesis is accepted, EA was a partial mediator in the relationship between personality functioning and mental health in personality disorders other than BPD.



Note. ***. Correlation is significant at the 0.005 level.

N= 112

Figure 2. Overview of Mediation Analysis of Personality Functioning, Experiential Avoidance, and Mental Health in Participants with Personality Disorders other than Borderline Personality Disorder

4. Discussion

This study aimed to examine the relationships between personality functioning, EA and mental health in participants with personality disorders. Specifically, the role of EA as mediator in the relationship between personality functioning and mental health was examined. The mediator role of EA was compared, in a sample of respondents with BPD to individuals with other PDs. The results showed that personality functioning and EA had a significant negative correlation, and EA and mental health a significant positive correlation. Furthermore, EA fully mediated the relationship between personality functioning and mental health in respondents with BPD. In a sample of people who had PDs other than BPD, EA partial mediated the relationship between personality functioning and mental health.

4.1. The Correlations of Personality Functioning, Experiential Avoidance, and Mental Health

The first and the second hypotheses dealt with the correlations of personality functioning, EA and mental health. According to expectations, the results showed that personality functioning had a significant negative correlation with EA. This meant that lower levels of personality functioning were associated with higher levels of EA. This would suggest that participants with worse personality functioning seem to further avoided personal experiences. To date, there is no literature testing the relationship between personality functioning and EA in a sample with PDs in general. But according to the literature of samples with BDP, the results of the current study are in line with previous findings suggest that higher levels of EA are associated with more symptoms of BPD and thereby with poorer personality functioning (Iverson, Follette, Pistorello, & Fruzzetti, 2012; Schramm, Venta, Sharp, 2013). In a sample with obsessive-compulsive PD was found that patients with higher levels of EA experiences more symptoms, and had therefore also a poorer personality functioning (Wheaton & Pinto, 2016). Thus, the current study confirms the results as previous literature found in samples with BPD and obsessive-compulsive PD. However, the findings of the current study suggest that EA is just important for personality functioning in patients with other PDs than patients with BPD or obsessive-compulsive PD. Although, the correlation was significant, only a moderate correlation was found. This means that the results have to be interpreted with caution, because the correlation could be found by chance only.

The second hypothesis assumed that mental health and EA have a positive correlation. The correlation analysis showed that EA had a significant positive correlation with mental health. Higher levels of EA were associated with higher levels of mental health problems in patients with PDs. This means that patients with PDs who avoided their personal experiences

displayed more mental health problems, such as symptoms of other mental disorders, and both psychological and social problems. These results are in line with recent literature, which showed that EA was associated with different mental health issues and disorders (Chawla & Ostafin, 2007; Marx & Sloan, 2002). The findings of the current study suggest that EA plays a role in the mental health problems of patients with PDs.

4.2. The Mediator Role of Experiential Avoidance in Participants with Borderline Personality Disorder

According to the third hypothesis, EA is assumed mediate the relationship between personality functioning and mental health in participants with borderline personality disorder. The results found that EA fully mediated the relationship between personality functioning and mental health in respondents with BPD. The full mediation of EA meant that the relationship between personality functioning and mental health only exists because of EA. Therefore, EA seemed to be the underlying process of this relationship, which means that patients with server borderline personality disorder only have more mental health problems, because they avoid their personal experiences.

These findings are in line with recent literature (Schramm, Venta, & Sharp, 2013; Gratz, Tull, & Gunderson, 2009, Sharp, Kalpakci, Mellick, Venta, & Temple, 2015). Furthermore, Cavicchioli, Rugi, and Maffei (2015) argued that EA is a core feature in borderline personality disorder, which is confirmed by the present study. Additionally, the fluctuations of mental health in patients with BPD (Bateman, & Tyrer, 2004), while personality functioning did not change, may be explained by EA, because of its mediator role. The findings of the current study suggest that EA may have an influence on the development of mental health problems of patients with BPD.

4.3. The Mediator Role of Experiential Avoidance in Participants with Other Personality Disorders

The last hypothesis assumed that EA is a mediator in the relationship between personality functioning and mental health in participants with PDs other than BPD. The results showed that EA partially mediated the relationship between personality functioning and mental health in respondents with PDs other than BPD. Participants with PDs other than BPD experienced more mental health problems if they had a maladaptive personality functioning and avoid their personal experiences. Although, EA seems to be an important factor in PDs other than BPD, half of the variances in mental health remained unexplained. Thus, EA was not the only underlying process in the relationship between personality

functioning and mental health in participants with PDs other than BPD. There remained some variance unexplained, because other factors than EA and personality functioning may predict the amount of mental health problems of patients with different PDs also. This illustrates the need for further investigations in search of more predicting factors.

The results are in line with the expectations of recent literature (Wheaton & Pinto, 2016; Yavuz, Şahin, Ulusoy, İpek, & Kurt, 2016). Wheaton and Pinto (2016) found that the symptom severity of people with obsessive-compulsive personality disorder correlates with EA. Thus, a poorer personality functioning with more symptoms was associated with higher levels of EA. This is supported by the present study, because in a sample with PDs other than BPD personality functioning was predictive for EA. Furthermore, literature suggested that EA plays a role in the relationship between antisocial PD and mental health (Yavuz, Şahin, Ulusoy, İpek, & Kurt, 2016). The current study suggests that EA influenced PDs other than BPD, even though this should be interpreted with caution, because only some PDs were represented, while others were not a part of the study. Personality disorders not otherwise specified were the most common PD in this sample. However, currently there is no literature that examined EA in PDs not otherwise specified. Furthermore, the studies by Wheaton and Pinto (2016), and Yavuz, Şahin, Ulusoy, İpek, and Kurt (2016) showed a correlation of EA only with the severity of other PDs and mental health. Therefore, the current study is the first suggesting that there is a tendency for EA playing a role as an underlying psychological process in PDs other than BPD. The need for further investigations is demonstrated.

4.4. Limitations and Recommendations

This study had certain limitations, wherefore the results should be interpreted with caution. First, the sample sizes were small for many personality disorders and some categories, such as histrionic, antisocial, paranoid, schizoid and schizotypal PD, were not represented at all. Thus, this sample is not representative for general PDs. Furthermore, there were many missing cases, reducing the total number of participants to 157. Second, the reliability of the social role scale of the OQ-45 was questionable. This dubious reliability could influence the total scale and the results pertaining to mental health. An alternative could be to use specific tests to measure mental health, for instance, a depression scale, such as the Patient Health Questionnaire 9-items (PHQ9), which seems to be valid and reliable (Kroenke, Spitzer, & Williams, 2003). By using specific scales, a clear interpretation can be made about which factor of mental health is affected. Third, the study had a correlational design, which did not allow the tracking of causal conclusions.

On the other hand, this study had certain strengths, which make the results

interpretable and trustworthy. First, most of the questionnaires had excellent reliability, for example, the AAQ-II. This trustworthiness, in turn, made the results reliable. Second, this study used a diagnostic questionnaire. This ensured, which PDs were present, and did not rely on the already diagnosed PD. Third, this study is the first to directly examine the relationship between personality functioning and mental health mediated by EA in participants with personality disorders other than BPD. Thus, this study acts as the first step to bridge a research gap that needs further investigation. Finally, the effect sizes of the mediation models were high, according to the interpretation framework of Cohen (1951).

Based on this discussion, the need for further research is evident. It is important to investigate EA in PDs other than BPD, because this study provides evidence that EA plays a role in these PDs. Furthermore, some of the variance in the mediation model of participants with BPD (20%), as well as, in the model of respondents with PDs other than BPD (50%), remained unexplained. Thus, other factors, such as maladaptive coping (Kellogg, & Young, 2006) or emotion dysregulation (Mancke, Herpertz, Kleindienst, & Bertsch, 2017) could also contribute to the prediction of mental health in participants with PDs, which should be investigated. Further recommendations for further research include: Future investigations should employ a larger sample size or investigate specific PDs in a larger sample. By focusing on a specific personality disorder, the sample size would be larger, and the results would be representative for that specific PD. Finally, an experimental study should be made. Only by an experiment is it possible to make causal conclusions about the mediator role of EA.

5. Conclusion

To conclude, this study determined that EA fully mediates the relationship between personality functioning and mental health in participants with borderline personality disorders. Therefore, EA is a key factor in the underlying process in patients with BPD. From a practical point of view, EA should be counted as a core feature of BPD, which could be an additional feature in the diagnosis of BPD. Additionally, it should be included in the treatment of BPD, because it predicts the mental health of patients. Furthermore, EA showed to be a partial mediator in respondents with PDs other than BPD. Thus, on basis of this study, there is evidence for the transdiagnostic view of EA. Experiential avoidance seemed to be unrelated to a specific PD, but is a key factor in the psychological process of PDs in general. However, this research indicates the importance of EA in BPD and other PDs, follow-up research is needed to make a clear statement regarding other PDs. A first step in understanding the role of EA in PDs has been made in this study, which contributes to the understanding and treatment of PDs.

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