

# Personality Disorders in Older Adults: Emerging Research Issues

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**Abstract** Empirical research focusing on personality disorders (PDs) among older adults is mainly limited to studies on psychometric properties of age-specific personality tests, the age neutrality of specific items/scales, and validation of personality inventories for older adults. We identified only two treatment studies—one on dialectical behavior therapy and one on schema therapy—both with promising results among older patients despite small and heterogeneous populations. More rigorous studies incorporating age-specific adaptations are needed. Furthermore, in contrast to increasing numbers of psychometric studies, the Diagnostic and Statistical Manual of Mental Disorders (DSM)-5 pays little attention to the characteristics of older adults with PDs. Moreover, the constructs

“personality change due to another medical condition” and “late-onset personality disorder” warrant further research among older adults. These needs will become even more pressing given the aging society worldwide.

**Keywords** Older adults · DSM-5 · Personality disorders · Late-onset personality disorder · Personality change due to another medical condition · Prevalence · Course · Assessment · Treatment · Psychotherapy

## Introduction

The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders [1] defines a personality disorder (PD) as “an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual’s culture” (p. 646). This implicates a chronic course of maladaptive personality traits associated with the PD that may persist into later life after an onset occurs in adolescence and/or early adulthood. Despite this assumed chronicity, only a modest number of epidemiological, diagnostic/psychometric, and efficacy studies have focused on PDs in adults aged 65 years and older. The vast majority of these are reviews, editorials, comments, or case reports on the importance of PDs in later life for clinical practice.

A systematic literature search in PubMed and PsycINFO using the search terms “personality” and “elderly” or “aging” or “older adults” and “diagnoses” or “treatment” from 2011 to July 2014 yielded a total of 39 hits. This indicates a limited scientific interest in late-life PDs, which seems a discrepancy with the high prevalence rates and negative impact on quality of life as well as on treatment of psychiatric and somatic disorders (see below).

The limited number of empirical studies can be attributed to the lack of clinical interest, the fact that older adults are

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difficult to include in large-scale studies due to the complexities of multi-morbidity, high dropout rates, unwillingness to participate, or incapacity to give informed consent. Furthermore, the suitability of the Diagnostic and Statistical Manual of Mental Disorders (DSM)'s definition of PDs appears to be limited in the case of older adults; it is often impossible to trace the personality functioning of an individual over the course of decades. Furthermore, a number of DSM criteria—those related to work and relationships, for example—are inappropriate for many older adults [2•]. Although the age neutrality of the DSM criteria has been subject to much debate in the literature [3, 4], the DSM has the advantage that it is frequently used in geriatric psychiatry and, for the time being, no better diagnostic classification model is available. Nevertheless, modifications to the DSM construct for PDs are desirable in order to provide an adequate basis both for research and for evidence-based interventions in clinical practice among older adults. After all, a key objective of DSM-5 is to provide guidelines for diagnosis that can inform treatment and management decisions [1]. In short: although detection of PDs among older adults is the first step to identify indications for treatment and behavioral counseling, the DSM-5 pays little attention to the specific characteristics of older adults with PDs.

First, this article critically evaluates research on the epidemiological, diagnostic, and treatment aspects of PDs in older adults. It then calls for the recently released chapter on DSM-5 PDs to be better substantiated in relation to and geared towards older adults. Finally, the paper concludes with a number of suggestions for further empirical research. Given the limited number of publications on PDs among older adults, our analysis includes not only publications from the last 3 years but also important earlier studies.

### Epidemiology: Prevalence and Course

An integrative review on late-life personality disorders reported that the prevalence of one or more PDs among older adults in the general population ranges from 3 to 13 % [5]. Recently, the largest study on the prevalence of personality disorders in later life has been published based on the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) [6]. Among the 8205 community-dwelling older persons included in NESARC, the prevalence rate of at least one PD was 8 %. Of the individual PD, the highest rates were found for obsessive-compulsive PD. Furthermore, PDs were highly associated with disability as well as medical and mental disorders [6]. Prevalence rates among older persons receiving mental health care vary between 5 and 33 % for those receiving outpatient care and between 7 and 80 % for those receiving inpatient care [6]. The wide ranges in estimated prevalence rate are at least partly explained by the fact that almost one third of the DSM IV-criteria for PDs are inappropriate for older adults. Among almost 37,000 respondents aged between

19 and 98 years in the general population, item response theory (IRT) analysis showed that in older persons, fewer diagnostic criteria of DSM-IV PDs were identified compared to younger persons [7]. A second IRT analysis on this sample revealed measurement errors in 29 % of the diagnostic criteria of DSM-IV PDs [7]. A limitation of this study is that only seven out of ten PDs (paranoid, schizoid, antisocial, histrionic, dependent, obsessive-compulsive, avoidant) were included. By analyzing data of the National Epidemiologic Survey on Alcohol and Related Conditions ( $N=43,093$ ), the equivalent levels of six PDs were compared by joint probability analyses between younger and older adults. Diagnoses “schizoid PD” and “obsessive-compulsive PD” were more likely in older adults and diagnoses “dependent PD” and “avoidant PD” were less likely in older adults. There were no differences between younger and older adults concerning “paranoid PD” and “histrionic PD” [8].

A recent literature review of three cross-sectional and two longitudinal studies on the course of PDs showed that temporal stability of PDs and personality traits is less than originally thought [9]. Particularly for borderline, antisocial, narcissistic, and histrionic PDs (cluster B), a higher degree of improvement and even recovery was reported at a later age. Two explanations are generally given for the decline in the prevalence of cluster B PDs with advancing age. Firstly, aging is accompanied by a decrease in expressive, impulsive, and aggressive behavior. Secondly, unhealthy lifestyles, violence, and accidents result in shorter life expectancy among adults with PDs [10]. A more novel explanation that deserves more attention in future research is the hypothesis of a shift towards depressive, somatic, and passive-aggressive behaviors with aging leading to underdiagnosis of cluster B PDs in later life [11, 12]. In summary, the age neutrality of a number of the criteria for DSM PDs is debatable.

### Assessment

The complexity of the construct of a “PD” requires, especially among older adults due to the complex interference of multi-morbidity, involvement of multiple sources of information for personality diagnostics: patient information including a medical history, autobiography, self-description, informant information (to supplement and/or verify patient information), behavioral observation by the clinician, and preferably the use of structured interviews or personality questionnaires [13, 14•].

The use of structured interviews and personality questionnaires among older adults is subject to a number of diagnostic limitations. First, normative data for the various populations of older adults are often lacking. Second, the large numbers of items and the complexity of these items, due to abstract language use, complicate the research. Third, a cluttered layout of self-report score sheets and the use of small font can lead to problems particularly among adults aged 75 and over [11].

A number of personality measures have now been validated for older adults. These can be grouped into three types: self-report questionnaires, informant-report questionnaires, and screeners. The self-report questionnaire Neuroticism Extraversion Openness Personality Inventory Revised (NEO-PI-R) [15], NEO Personality Inventory 3 (NEO-PI-3) [16], and shortened versions thereof—the NEO Personality Inventory Revised Short Form (NEO-PI-R-SF) [17] and the NEO Five-Factor Inventory (NEO-FFI) [15]—have been validated among older adults. These tests are particularly useful for assessing adaptive personality traits among older adults in the general population, although the NEO-PI-R also seems to assess maladaptive traits [18]. Nonetheless, psychometric data of the NEO-PI-R for clinical populations of older adults are lacking. An example of an informant-report questionnaire is the so-called Hetero-Anamnestic Personality questionnaire (HAP) [19], which has been validated for older adults in mental healthcare and nursing home residents. The HAP maps the patient's personality features retrospectively, by asking an informant how the patient behaved before the psychiatric condition (e.g., dementia or depression) was diagnosed or the somatic comorbidity (e.g., a stroke) occurred. The idea here is to prevent bias resulting from a current psychiatric condition or somatic comorbidity. Finally, a 16-item screener for PDs among older outpatients in mental healthcare has been validated: the Gerontological Personality disorder Scale (GPS) [11]. The GPS consists of a patient and an informant version. The sensitivity and specificity of the patient version have been found to be fair (both around 70 %), but the sensitivity and specificity of the informant version are somewhat lower [11].

In addition, a number of studies have examined the age neutrality of personality questionnaires [14•]. The Assessment of DSM-IV Personality Disorders (ADP-IV) [20], the NEO PI-R [15, 21], the Young Schema Questionnaire (YSQ) [22], and the Personality Inventory for DSM-5 (PID-5) [23] have been examined for age neutrality by means of differential item functioning (DIF) and differential test functioning (DTF). An item shows DIF when an older adult does not have the same opportunity as a younger adult to answer an item in the same direction or on the same level on a Likert scale in case the younger and the older adult display the underlying trait to the same degree (and thus have the same total score on the scale). To assess the impact of the DIF items at scale level, a DTF analysis investigates the aggregated effect of all DIF to determine whether the scale can still be used to compare the scores of younger and older adults and even more important, whether the scale is clinically applicable.

In the ADP-IV, DIF was found for only four items (4.3 %) with no DTF on the different personality scales [24]. Similarly, only 3 % DIF was found for the YSQ, thus also implying age neutrality. DTF was found on the “Entitlement” scale, meaning that this YSQ scale is less suitable for clinical use in

older adults [25]. With respect to the NEO-PI-R, a high degree of DIF for 17 items (7.1 %) and high DTF on the “Extraversion” scale was found; this scale should therefore be applied with caution [26]. Finally, on the PID-5, DIF was found for 30 items (13.6 %) and high DTF was found for the PID-5 scales “Withdrawal,” “Attention Seeking,” “Rigid Perfectionism,” and “Unusual Beliefs” [27]. Yet, to date, research on the age neutrality of test items and the implications at scale level is still in its infancies. Generalization of the first findings may be hampered as studies have been conducted in either the general population or highly specific clinical populations like those with substance abuse problems.

## Treatment

The presence of PDs in routine clinical care is relevant from two viewpoints. Firstly, PDs may complicate treatment of comorbid psychiatric disorders [28] and secondly, the burden of PDs itself can warrant proper treatment of the PD itself in order to improve treatment outcome [29].

The most recent meta-analysis on the impact of PDs on the outcome of DSM axis I disorders concludes that a comorbid PD doubles the odds of a poor outcome in depression treatment as compared to having with no PDs [30••]. The only study conducted among older adults showed that the combination of cluster C PDs and residual depressive symptoms predicts a worse course of the depressive symptoms, even after recovery from the index episode of depression [31].

To date, four treatment studies have been published that have examined (aspects of) psychotherapeutic treatments, which have been developed specifically for the treatment of PDs. Two studies of these studies, however, were conducted on depressed older persons without personality assessment. Although a significant proportion of depressed patients in mental health care institutions suffer from PDs, conclusions of these two studies are at most that dialectical behavioral therapy (DBT) [32] and schema therapy (ST) [33] are feasible in older patients. Only two studies have examined treatments in older adults with PDs (features) and/or longstanding mood disorders [34, 35••]. The first study on DBT was a randomized controlled trial on depressed older patients suffering from at least one comorbid PD according to the Structured Clinical Interview for DSM-IV for Axis II (SCID-II) [36] who did not respond to an initial antidepressant drug therapy. A total of 37 patients were randomized to either antidepressant alone or antidepressant therapy combined with DBT [34]. Antidepressant combined with DBT was significantly superior with respect to improvement on interpersonal sensitivity and on interpersonal aggression at both posttreatment and 6-month follow-up compared to antidepressants alone. Nonetheless, addition of DBT did not significantly improve depressive symptoms over medication alone. In both conditions, about

half of the PDs were in remission after treatment, which is remarkable as pharmacotherapy has not been proven efficacious in treating PD itself. This suggests that the diagnosis of the PDs might have been confounded by the comorbid depression [37].

The second treatment study evaluated short-term schema group therapy for 31 older outpatients suffering from chronic depression and/or a PD (or PD features) in Dutch mental healthcare [35••]. Within a pre-post design (with repeated measures during treatment), a medium treatment effect on the reduction of depressive symptoms, dysfunctional schemas, and schema modes was found, which was comparable to results previously found in adults [38]. Interestingly, this study demonstrated that the reduction in symptoms was mediated by a change in dysfunctional schemas, which supports the effectiveness of schema therapy for older adults [35••]. Moreover, Videler et al. suggested integrating age-specific aspects to increase the power of schema therapy for older adults, such as the changing life perspective, the beliefs about—and consequences of—somatic ailments, cohort beliefs and the sociocultural context, change in role investment, and intergenerational linkages.

In summary, these two treatment studies clearly show the feasibility of psychotherapy for PDs and/or PD features in later life. Moreover, these initial results suggest that the effectiveness for older adults with severe mood disorders and/or personality problems is comparable with results achieved in younger age groups. Nonetheless, given the small and heterogeneous study populations, results cannot straightforwardly be generalized to other populations.

### DSM-5 PDs Sections II and III

The recently published DSM-5 [1] largely retains the old DSM-IV classification for PDs with its corresponding categories [39]. However, one remarkable exception is the “Personality change due to another medical condition.” The DSM-IV [39] subsumes “Personality change due to another medical condition” under the section “Psychological disorders due to a somatic condition.” In the DSM-5, this disorder appears in the “Personality disorders” chapter of section II (Diagnostic Criteria and Codes) under the subheading “Other personality disorders.” However, the general criteria for a PD in the same chapter assert, confusingly, that the personality change due to another medical condition should be excluded in order to diagnose a PD (criterion F, p. 647).

Given the diagnostic heterogeneity within categories and high degree of comorbidity, a dimensional approach was initially advocated. Ultimately, it was only included in the DSM-5 as an alternative or experimental model for PDs (section III, “Emerging measures and models”), since more research is needed, also on the clinical applicability of this

proposal [40–42]. Only six prototypes of PDs (schizotypal, borderline, antisocial, narcissistic, avoidant, and obsessive-compulsive) were retained to address diagnostic overlap, based on two criteria: significant disturbances in personal and interpersonal functioning (criterion A) and the presence of one or more of the five pathological personality traits (negative affectivity, detachment, antagonism, disinhibition, and psychoticism) and the 25 facets associated with these traits (criterion B). To our knowledge, only two empirical studies on the dimensional DSM-5 model have been conducted in older adults, both focusing on criterion B using the PID-5 [27, 43].

The dimensional DSM-5 model not only gives opportunities for geriatric psychiatry but also threatens [44]. The main threat in geriatric psychiatry is subjecting older adults to extensive interviews and tests to assess their intrapersonal and interpersonal functioning as well as the five pathological personality traits and associated facets. Moreover, it seems unlikely that the validity and reliability of the standardized instruments will have similar psychometric properties when used in geriatric psychiatry.

The opportunity arises to study whether this new model or aspects thereof are useful for older adults in mental healthcare and nursing home residents. To make the next version of the DSM-5 more valid for older adults, research in these areas is essential and older populations must be involved in the further development of section III. Otherwise, as is the case with the previous editions of the DSM, we risk that criteria remain inadequate for older adults [7, 8].

### Late-onset PD in a Revised Version of DSM-5?

It is notable that the chapter on PDs in both the DSM-IV and the DSM-5—despite the earlier mention of a persistent course of PDs—asserts that a PD can in fact worsen later in life: “A PD may be exacerbated following the loss of significant supporting persons (e.g., a spouse) or previously stabilizing social situations (e.g., a job) (p. 648).” Moreover, the experimental DSM-5 model for PDs (section III, “Emerging measures and models”) emphasizes the “relative stability” in the general criteria for a PD (criterion D, p. 761). These nuances can do justice to the importance of life transitions and negative life events in affecting the degree of severity of a PD, but do not acknowledge that an underlying personality constellation and limitations in adaptive coping mechanisms can lead to the development of a PD for the first time in later life, at a syndromal or clinical level. In contrast, case studies and expert opinions point to the existence of late-onset PDs, which first manifest themselves at an older age [6].

However, questions are raised about the notion of late-onset personality pathology, since an individual’s early development strongly influences the development of PDs in the

narrow sense. Careful analysis of late-onset PDs reveals the presence in most cases of subsyndromal or subclinical PDs that were either denied, accepted, or adequately compensated for by the adult in the individual's environment, and therefore, clinical threshold of a PD was not reached earlier. In later life, changes in the individual's living circumstances and/or reduced positive reinforcement may lead to a decrease in adaptation to environmental factors, whereby the maladaptive personality traits and limitations in personality functioning can become more manifest. After all, the biopsychosocial aspects of aging place great demands on the individual's capacity to adapt to their changing living circumstances, especially in a vulnerable group with subsyndromal PDs. Three examples from clinical practice are (1) increased envy and personal grandiosity among previous successful narcissists as a result of forced retirement; (2) increased rigidity as well as preoccupation with mental and interpersonal control among older adults with obsessive-compulsive traits as a result of a loss of control due to physical or mental decline; and (3) severe clinging behavior among individuals with dependent personality traits after the death of the caring spouse. In contrast to the DSM-5, the 11th edition of the International Statistical Classification of Diseases and Related Health Problems [45] will likely include the construct late-onset PD.

Specification in the next DSM edition (PD specify late-onset) would foster identification of indications for treatment and appropriate behavioral advice for caregivers and professionals.

### Further Empirical Research

Further research should be carried out into the prevalence and course of PDs among older adults using items and scales with demonstrated age neutrality. With regard to clinical practice, common personality questionnaires and interviews in adult care must be adapted and validated for older in- and outpatient populations. A means of assessing criterion A of the experimental DSM-5 model for PDs must also be developed. Finally, research on the construct and discriminant validity of the experimental DSM-5 PDs, late-onset PDs, and personality changes due to another medical condition among older adults is necessary.

Better diagnostic criteria instruments will facilitate treatment studies. In this field, replication studies of randomized controlled studies are needed to generalize the results of "proven" therapies in adult care to older persons with PDs. These studies should not only evaluate psychotherapies such as schema therapy, mentalization-based therapy, and dialectical behavior therapy but also pharmacotherapy. Psychotherapy studies should also evaluate the added value of "gerotopics" like the role played by loss of health and autonomy, cohort beliefs, sociocultural context, somatic comorbidity, intergenerational linkages, and changing life perspectives [13]. Both efficacy studies in well-described homogeneous

older populations as well as (cost-)effectiveness research with broad inclusion criteria should be conducted in different clinical settings. Specifically for older patients hospitalized in mental health centers or nursing homes, studies on behavioral counseling are needed.

### Conclusions

Despite the limited number of epidemiological, psychometric, and treatment studies on PDs in older adults, recent studies since 2011 show a cautious optimistic future. Firstly, awareness is growing for the need of age-specific personality tests, the age neutrality of specific items/scales, and cross-validation of personality questionnaires in older populations that have been developed in younger age groups. Secondly, the first treatment study shows a cautious therapeutic optimism, although more rigorous studies are clearly warranted.

More research on PDs in later life will probably stimulate the development of age-neutral criteria or, where necessary, age-specific diagnostic criteria that can be taken into account in update of the DSM classification system. Based on current knowledge, we call for an inclusion of "late-onset PD" in the next version of the DSM-5 and reconsideration of the positioning of "Personality change due to another medical condition." This will not only do more justice to the changes in personality traits experienced in later life but will also provide more focused indications for specific therapies and the use of more appropriate behavioral counseling. Given that the number of older adults with PDs—and the corresponding demand for care—will only increase in many Western and Asian countries in the future, these issues are becoming all the more pressing.

### Compliance with Ethics Guidelines

**Conflict of Interest** S. P. J. van Alphen, S. D. M. van Dijk, A. C. Videler, G. Rossi, E. Dierckx, F. Bouckaert, and R. C. Oude Voshaar declare that they have no conflict of interest.

**Human and Animal Rights and Informed Consent** This article does not contain any studies with human or animal subjects performed by any of the authors.

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