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## Age-related Outcomes Associated with Personality Pathology in Later Life

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#### **Abstract**

Methodological advances enable the latest research on personality pathology in later life to turn toward understanding the role personality pathology plays in age-related outcomes. Despite indications that some features of personality disorders fade in later life, a prevalence rate of approximately 10 percent has been established for adults aged 50 or older. Personality disorder features have been linked to suicidal ideation, poorer physical health, and cognitive decline in later life. Given these associations, the literature on treatment of personality disorders in this age group is surprisingly scant. Future research needs to address this lack in order to provide guidelines for the use of the *DSM-5* Alternative Model for Personality Disorders with older adults.

Personality pathology in later life is a topic more frequently discussed than studied. Many researchers have called attention to this important topic [1–3], but the number of empirical publications remains relatively low. A lifespan perspective has contributed tremendously to the understanding of personality pathology in children and young to mid-adulthood [4–6]. By contrast, previous research on personality disorders (PDs) in later life has been hindered by age-biased diagnostic criteria and other challenges associated with the assessment of personality pathology in the context of older adulthood. Recent advances have addressed these issues and provide guidelines for the assessment of PDs in later life [7]. Much work remains to be done. Nevertheless, the field is ready to address the next set of goals for research on PDs in later life: (1) to document aging-related outcomes associated with personality pathology and (2) to identify potential targets for intervention. As such, the purpose of the current review is to synthesize recent findings on the links between personality pathology and consequential life outcomes in older adulthood as well as offer suggestions for future research.

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### **Epidemiology**

In order to contextualize the effects of personality pathology in later life, we briefly review the epidemiological literature. These studies must be interpreted carefully [2]. Differences between prevalence rates in older adults and younger adults are based on cross-sectional comparisons, and age bias in the criteria may result in underestimates of PDs in later life. Furthermore, prevalence rates, by their very nature, treat personality pathology in a categorical manner. Regardless of whether one examines PD symptom clusters or pathological personality traits, such as those found in the *Diagnostic and Statistical Manual of Mental Disorders*, 5<sup>th</sup> edition (DSM-5) Alternative Model for Personality Disorders, personality pathology exists along a continuum. Even if diagnosable PDs are found to be less prevalent in later life, subthreshold presentations may continue to exert an important influence on health and functioning.

With these caveats in mind, the prevalence for one or more PDs in community samples of older adults appears to range from three to thirteen percent [3]. Of course, this is a broad range for such an important estimate. The best evidence points to a narrower estimate of approximately 10 percent when older adulthood is defined as age 50 or older [8]. For example, the St. Louis Personality and Aging Network (SPAN) found a prevalence rate of 10% as assessed by diagnostic interview in a sample of 55-64 year olds [9]. Unfortunately, estimates for sub-groups of older adults above the age of 65 are more controversial. Findings from the National Epidemiologic Survey of Alcohol and Related Conditions (NESARC) suggest a prevalence rate of 8% in individuals aged 65 and older [10]. However, this rate was based on only 7 of the 10 PD types, and NESARC requires distress or impairment to be associated with only one criterion for diagnosis. When distress/impairment is required of all criteria in order to count toward diagnosis, the prevalence rate of PDs in the entire NESARC sample is dramatically reduced and more consistent with other epidemiological studies [11]. More research is needed to ascertain the prevalence rate of PDs in the oldest old. The rates for individuals aged 50 years or older are comparable to those found for younger adults, although limited evidence suggests that older adults may experience greater rates of paranoid, schizoid, and obsessive-compulsive PD symptoms [8] and lower rates of borderline and antisocial PD [12]. Symptomatic presentations may change with age, but the literature clearly supports the claim that personality pathology persists at a meaningful level in later life.

#### **Later Life Outcomes**

Research on the meaning that personality pathology holds for later life outcomes is still in its infancy. Several domains offer tantalizing glimpses into the possible correlates, consequences, and mechanisms associated with personality pathology in this life context. Especially in the literature regarding borderline PD (BPD), review after review offers at least a brief mention of the possible impact of major role transitions, such as the loss of close relationships and retirement, which occur in this period of life [13,14]. It is unclear exactly how personality pathology interacts with these transitions. Nevertheless, much is known about how health and cognitive functioning change in an aging context, and ways in which

these domains are related to personality pathology broadly speaking. It is important to extend this knowledge to consider the impact of personality pathology.

#### **Suicidal Behavior**

Suicidal behavior assumes added significance in later life. Evidence suggests that rates of death by suicide in non-Hispanic White men exhibit a sharp increase after the age of 65 [15]. Previous studies have linked PDs in later life to suicide and suicide-related outcomes, such as suicidal ideation. The presence of PDs and PD features are related to increased risk for suicide in older adults [16,17]. Personality pathology also predicts suicidal ideation in older adulthood, with borderline PD symptoms and trait neuroticism being uniquely predictive of greater suicidal ideation over other PD types and normal-range personality traits, respectively [18]. Measures of depressive symptoms, thwarted belongingness, and perceived burdensomeness, constructs central to the interpersonal theory of suicide, account for some of the variance in the relationship between PDs and suicidal ideation [19]. Older adults may experience higher levels of perceived burdensomeness and thwarted belongingness due to social losses and greater dependency on others in later life, but further research is needed to establish the developmental trajectory of these constructs. As the literature on suicidal behavior continues to delineate among different types of suicidal and self-harm behavior, it will be important to examine the way in which PDs interact with these behaviors in later life.

#### **Physical Health**

Associations between PDs and physical health outcomes have been well established [20]. What is less well understood is the particular role that aging plays in these relationships. Older adulthood is an ideal context to study personality pathology and physical health because the rate of chronic health conditions and the extent of their impact both increase with age [2]. Maladaptive personality traits contribute unique variance to the prediction of physical health outcomes in later life, over and above normal-range personality traits [21]. PD symptoms predict worse physical functioning and greater medication usage and medical resource utilization over six months [22]. Further follow up show that narcissistic and antisocial personality disorder symptoms are associated with greater medical resource utilization over two years of follow-up, as are dependent and histrionic symptoms when reported physical health problems are high [23].

Although some symptoms of borderline PD (BPD) appear less often in older adult populations [24], the presence of BPD symptoms continues to be a critical predictor of physical health outcomes. BPD is predictive of arthritis and heart disease, and obesity accounts for some of the variance in this relationship [25]. In turn, the variance in the relationship between BPD symptoms and obesity is partially mediated by impulsivity [26]. Transitions in later life may identify factors that moderate the impact of BPD symptoms on health. One recent study found that employment moderated the relationship between BPD and subjective physical health in the SPAN sample [27]. Unemployed individuals exhibited a stronger negative relationship between borderline traits and subjective physical health than employed individuals. It may be that employment offers individuals high on borderline PD symptomatology a source of identity integration that enables them to achieve a higher level of functioning [28].

#### **Cognitive Decline**

Surprisingly little research has examined the relationship between PDs and dementia, given established associations between normal-range personality traits and cognitive decline [29,30]. Studies involving the five-factor model of personality show that high neuroticism and low conscientiousness convey risk for developing Alzheimer's disease. Evidence also suggests that *changes* in personality, particularly increases in neuroticism, precede the onset of cognitive decline [31]. Given that high neuroticism is one of the hallmarks of personality pathology [32,33], and that maladaptive personality traits offer enhanced predictive power over normal-range personality with regards to certain outcomes [21], a relatively straightforward extension of these findings would be to examine PDs in relation to cognitive decline.

The authors are aware of only three recent studies. One study found that dependent PD, as assessed by self-report questionnaire, was associated with increased rates of mild cognitive impairment and dementia in a Central African sample [34]. However, the criteria for dependent PD lack face validity for older adults, especially those with cognitive decline, who do depend on caregivers for their well-being. It is likely that these results reflect age bias in the criteria rather than any substantive relationship between pathological personality and cognitive decline. Another study found that informant reported premorbid Cluster A traits (paranoid, schizoid, and schizotypal PD) were associated with anxiety, depression and hallucinations in patients with a diagnosis of probable Alzheimer's disease, whereas Cluster C traits (avoidant, dependent, and obsessive-compulsive PD) were associated with depression [35]. Cluster B traits were associated specifically with symptoms of aggression and irritability. It is unclear if these findings reflect unique associations between personality pathology and dementia symptoms; they may be more relevant to the existing literature linking PDs to anxiety, depression, aggression and irritability.

One final study examined the associations between multiple methods of assessing PDs in later life and an informant report measure of cognitive change, the Ascertain Dementia 8-item Questionnaire (AD8) [36,37]. Personality pathology measures, particularly informant report, were uniquely predictive of concurrent AD8 scores. Although the primary purpose of this study was to examine incremental validity of PD measures when assessing later life outcomes, it offers a clear direction for future research to examine the potential mechanisms linking PDs with cognitive decline.

#### **Treatment**

Given the negative outcomes associated with PD in later life, one would expect to find considerable clinical interest in this subject. Unfortunately, the dearth of treatment studies on PDs in older adults is truly sobering [38]. Two studies examine the efficacy of psychotherapeutic treatments with older adults exhibiting features of PDs [23, 24]. Lynch et al. (2007) compared a combination of dialectical behavior therapy (DBT) and medication to medication alone in older adults with depression and comorbid PD features. They concluded that DBT plus medication resulted in a faster remission of depressive symptoms than medication alone. In addition, they proposed adapting DBT for use with older adults through increased focus on rigid and inflexible personality traits. However, they did not directly

assess personality variables as an outcome measure. The only other treatment study for PDs in older adults examined the efficacy of schema group therapy, again for comorbid mood disorder and PD features [40]. The efficacy of schema therapy found some support, and early changes in schema severity did predict later symptom improvement. As a proof of concept study, the design did not include a control group, and a future randomized control trial will be necessary to further investigate this form of treatment. Given the effects of PD features on a number of critical aging-related domains, treatment may benefit from focusing on adapting the individual with high PD traits to the transitions of later life, particularly those associated with navigating changes in health and cognitive functioning.

#### **Conclusions and Future Directions**

As the field begins transitioning to the DSM-5 Alternative Model for PDs (AMPD) and builds an argument for its inclusion in the main text of the DSM, it will become increasingly important to examine pathological personality traits from a lifespan perspective. Currently, the text of the AMPD does not provide any specific information about the developmental trajectory of pathological personality traits, except to say, "individuals' trait levels also can and do change throughout life" [41]. However, the AMPD overlaps meaningfully with the five-factor model (FFM) of normal-range personality. As such, conclusions about the expression of maladaptive personality in later life as conceptualized by the AMPD can be drawn based on the extensive research on the FFM across the lifespan. In addition, a few studies since the publication of DSM-5 have examined the AMPD in samples of older adults. One such study found that the joint factor analytic structure of the Personality Inventory for DSM-5 (PID-5) and another measure of maladaptive personality traits converged on four of the five AMPD traits in older adults [42]. Another study showed that four out of the twenty-five PID-5 facet-level scales showed potential age-bias in a number of the relevant items [43]. These findings indicate that although the AMPD functions similarly in older versus younger adults, more research is needed to ensure that the AMPD conceptualization is as age-neutral as possible. Introducing a lifespan perspective into the study of maladaptive personality offers an opportunity to do some soul-searching with regards to the way we conceptualize personality pathology in older adulthood, as well as begin to fill in the gaps in the literature regarding the relationships between aging, personality pathology, and various age-related outcomes. As the future diagnostic model takes seriously the role of personality pathology in later life, it will be able to diminish substantial elements of suffering in this population.

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## Highlights

- The prevalence rate for personality disorders is  $\sim$ 10 percent in later life.
- Personality disorders are associated with several important age-related outcomes.
- Few studies of personality disorder treatment in later life exist.