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Personality Disorders in Later Life: Questions about the Measurement, Course, and Impact of Disorders

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Abstract

Lifespan perspectives have played a crucial role in shaping our understanding of many forms of psychopathology. Unfortunately, little attention has been given to personality disorders in middle adulthood and later life. Several issues are responsible for this deficiency, including difficulty applying the diagnostic criteria for personality disorders to older people and challenges in identifying appropriate samples of older participants. The goal of this review is to explore the benefits of considering older adults in the study of personality disorders. Later life offers a unique opportunity for investigators to consider links between personality pathology and consequential outcomes in people's lives. Many domains are relevant, including health, longevity, social adjustment, marital relationships, and the experience of major life events. We review each domain and consider ways in which the study of middle-aged and older adults challenges researchers to evaluate how personality disorders in general are defined and measured.

Keywords

age of onset; health; lifespan development; marital adjustment; measurement; prevalence

INTRODUCTION

Lifespan perspectives on psychopathology have played a crucial role in shaping the classification of many forms of psychopathology. Established views of major mental disorders, such as schizophrenia and bipolar disorder, are based on careful descriptions that include close attention to the course of the disorders over extended periods of time. Kraepelin's early recognition of the distinction between dementia praecox and manic depressive psychosis hinged largely on different patterns that these disorders follow over time rather than on the presence of specific symptoms during periods of acute disturbance. More recent longitudinal studies have identified many factors that influence maintenance of, and recovery from, disorders ranging from schizophrenia (Fenton 2000, Sartorius et al. 1996) and depression (Fox 2002) to alcoholism (Vaillant 1995) and various forms of anxiety disorder (Noyes et al. 1996). Clearly the perspective offered by time—coupled with a broad view of the lifespan—enables the identification of important information that would otherwise go unnoticed (Widiger & Clark 2000).

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Why Study Personality Disorders in Later Life?

In comparison to the literatures concerned with most forms of mental disorder, relatively little attention has been paid to the trajectory of personality disorders. This is especially true with regard to middle adulthood and later life. A few longitudinal studies have made substantial contributions to our understanding of personality disorders, but they have focused largely on the period of the lifespan ranging from childhood through adolescence and young adulthood (Skodol 2008). For example, the Children in the Community Study (CIC) documented the continuity of adolescent personality characteristics from childhood and adolescence and into adulthood. Approximately 800 participants in this community-based sample entered the study as children and were initially assessed for personality pathology when they were on average 14 years old. Data were collected at four subsequent periods, with the most recent assessments being conducted when participants were on average 38 years old (Cohen 2008). Several papers from this innovative study demonstrated that various types of personality disorder are associated with the subsequent development of social impairment as well as the onset of other forms of psychopathology (Cohen et al. 2005). Unfortunately, it seems unlikely that this sample will be followed into middle and then older age.

Another important study concerned with the stability of personality disorders over time has been the Collaborative Longitudinal Personality Disorders Study (CLPS), which included careful assessments in a sample of approximately 700 psychiatric patients between the ages of 18 and 45 who were in treatment at five different clinics (Skodol et al. 2005). They were followed over a period of 10 years. Reports from this group of investigators have demonstrated that the symptoms of personality disorders are not as stable as previously believed. On the other hand, functional impairment associated with personality pathology was found to be extensive and relatively more stable in comparison to personality disorder symptoms (e.g., Morey et al. 2007). As in the case of the CIC Study, it seems unlikely that these patients will be followed past middle age.

The purpose of this article is to review evidence that is available regarding personality disorders in middle age and later life and to outline important issues and questions that can be addressed by research on personality pathology in older adults. Personality disorders represent an important mental health problem for older adults, and there is a serious need for more information in this area. This population presents a number of interesting opportunities and advantages in comparison to the study of personality pathology among adolescents and young adults. One is that personality traits (and their pathological variations) have been shown to be relatively more stable in older individuals. Several reviews of normal personality development have concluded that there is substantial evidence for a gradual increase in stability from late adolescence through the adult years, with “strong stability” being achieved after the age of 50 (e.g., Costa et al. 1999, Shiner 2005). Another important consideration with regard to older adults is that they are also entering a period in their lives when the frequency of transitions and health problems will increase. It may be best to study personality and personality disorders during periods of significant transition because the enduring behavioral and affective expressions that define the individual and distinguish individuals from one another will be exaggerated at such times (Caspi & Moffitt 1993, Cervone & Mischel 2002).

Our review focuses primarily on evidence regarding personality disorders as they are defined in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). Of course, alternative dimensional models of personality pathology have been proposed, and the discussions regarding the definition of personality disorders to be included in DSM-5 are currently in progress. There is no way to know how these changes might unfold over the next few months, but where appropriate we comment on them as they relate

to the assessment of personality disorders in later life. In addition to discussing personality disorders, we consider personality traits, such as neuroticism and agreeableness, that have been shown to be closely related to personality disorders and will likely be included in DSM-5. The issues associated with the development of the DSM-5 are complex, and they raise challenging problems for investigators, particularly those involved in ongoing longitudinal studies. Nevertheless, we believe that examination of these issues will ultimately stimulate more useful research as investigators are forced to question the validity of their hypothetical constructs. Our only disappointment with the process is that the overriding focus on traits versus categories has detracted attention from several other issues that are also important, such as considering personality disorders in later life.

What Factors Have Led to the Dearth of Research on Personality Disorders in Later Life?

Until recently there has been a dearth of research on personality disorders in later life. There are several interrelated explanations for this deficiency. The most basic explanation centers on the difficulty of identifying appropriate samples of older adults. Investigators in the field of personality disorders research have tended to focus on samples of convenience to explore questions about these disorders. These samples include undergraduate students as well as relatively accessible groups of patients who are being treated for mental health problems of various kinds. These participants are almost invariably young adults. There are obviously some good reasons to use samples of convenience (Henry 1990), especially in relatively new and emerging fields such as ours. They give investigators easy access to participants and thereby allow researchers to draw conclusions about phenomena more quickly than would be permitted by locating a representative epidemiological sample.

There are also drawbacks that accompany reliance on convenience samples. For one, they may prevent us from challenging our practical and theoretical understanding of these disorders; they insulate us from addressing some of the difficult, legitimate questions that ought to be answered. For example, when considering the diagnostic criteria for personality disorders, which are the fundamental building blocks of our field, samples of convenience have kept us from answering this practical question: Do the current diagnostic criteria work equivalently well for all demographic groups? Samples of convenience also keep us from adequately addressing important questions about the course and impact of these disorders: Are the implications of these disorders the same in different walks of life? Does the face of these disorders change in middle or later life?

One might examine these points and draw the classic conclusion—we need broader samples if we’re going to generalize our findings beyond those of our easiest available samples. We would like to note, however, that in our literature the implications of using convenient samples go beyond this typical limitation; they actually become a core problem. Looking beyond samples of convenience can actually strengthen our understanding of personality disorders in a fundamental way and will eventually improve the assessment and treatment procedures that are developed. This is one of the main themes of this paper: expanding our perspective may very well benefit the field as a whole by forcing us to confront a series of fundamental questions about the nature of personality disorders and the ways in which they are measured.

Measurement instruments for personality disorders do not fully apply to the later life context. If a researcher wants to study the outcomes of personality disorders in later life, she or he is quickly confronted with the fact that the existing diagnostic criteria do not have face validity for this age group. In fact, the items often focus on a younger social and occupational context, including criteria that explicitly would not apply to a retired older adult. For example, the item for avoidant personality disorder, “Avoids occupational context,” has poor face validity for older adults, many of whom are retired. Numerous

reviews point to this problem with the diagnostic criteria as a legitimate hindrance to the field (e.g., Rosowsky et al. 1999; Segal et al. 1996, 2006; Zweig 2008). Even if an investigator wanted to study personality disorders in later life, she or he would inevitably need to ask: How will I measure them? Because of these practical barriers to conducting personality disorder research in this population, this general topic has been neglected, and the field as a whole has suffered.

This problem with diagnostic criteria creates cyclical problems for the field. Because the criteria themselves hinder research, knowledge about personality disorders in later life and important information about how they do present in later life never begins to inform the revision of these criteria. Later in the review, we discuss this problem in further depth and then highlight what might be gained if we develop criteria that work to measure personality disorders equally well across the entire adult lifespan.

For now, it is important for the reader to consider the possibility that in addition to general problems accessing older adult samples and perhaps because of specific problems with the diagnostic criteria, the field has largely neglected programmatic research on personality disorders with samples of older adults. Significant advances regarding the measurement of late-life depression were made in the early to mid 1980s, nearly 30 years ago (see Brink et al. 1982, Sheikh & Yesavage 1986, Yesavage et al. 1983), but efforts to empirically evaluate the measurement of personality disorders in later life have mostly been launched in recent years (see Van Alphen et al. 2006).

Clearly one of the goals of this review is to explore the implications of our tendency as a field to neglect studying these disorders in middle age and later life. For each major topic area (prevalence, outcome, assessment, and theory), we discuss advances the field could make in terms of our general understanding of these disorders if we begin to focus research efforts on older adults. Toward the end of the review, we highlight the fact that samples of older adults and lifespan samples can be identified and studied. Acquiring these samples does indeed require commitments from both researchers and funding agencies. We start our review with a discussion of prevalence, move to outcome research, then assessment, and finally conclude with a discussion of some theoretical issues that are relevant to understanding personality disorders across the lifespan.

FREQUENCY AND FORM OF PERSONALITY DISORDERS IN MIDDLE AGE AND LATER LIFE

Epidemiological data suggest that personality disorders are relatively common in the general population and even more prevalent among clinical samples (usually people seeking treatment for other mental health problems such as depression and substance use disorders). Before devoting too much effort to a detailed consideration of this information, it must be noted that this exercise might be somewhat artificial. These studies tell us how many people exhibit enough symptoms of personality disorders to be considered above threshold for the diagnosis. Counting how many people qualify for a personality disorder diagnosis is akin to asking how many people are tall or fat in a population—these dimensions are somewhat misleading when presented as discrete categories. This stands in contrast to the more straightforward and appropriate epidemiological practice of counting how many people are infected with a particular virus. Indeed, current discussions regarding the revision of diagnostic criteria for personality disorders (e.g., Krueger & Eaton 2010) clearly focus on the dimensional nature of these disorders; personality pathology is defined in terms of continuous variations along a number of dimensions. An accurate description of the prevalence of personality pathology would require evidence regarding the distribution of scores on a particular personality scale or the distribution of people who exhibit specific

numbers of features of personality disorder categories [e.g., how many people are rated as having 0 symptoms of borderline personality disorder (BPD), 1 symptom of BPD, 2 symptoms, and so on].

Although the exercise is somewhat artificial, it's nevertheless useful to consider briefly how many people exhibit enough symptoms of personality disorders to be considered above threshold for the diagnosis. Most of the evidence on this topic is based on the use of semistructured diagnostic interviews to identify DSM-IV personality disorders (defined by the admittedly arbitrary thresholds established in that manual). Several reviews place the median prevalence for any type of DSM-IV personality disorder at approximately 10% to 14% (Lenzenweger 2008, Torgersen 2005), including those who exhibit mixed features and would be considered examples of personality disorder not otherwise specified. Of course, the specific figures vary from study to study depending on ways in which samples are identified as well as the assessment instruments used to identify cases.

Later in this review, we describe and discuss several methodological issues that have an important influence on estimates regarding the nature and extent of personality pathology among older adults. One that must be mentioned here involves age of onset. According to the DSM-IV general definition of personality disorders, a personality disorder must begin by adolescence ("adaptive failure can be traced back at least to adolescence"). This definition precludes the possibility of a late-onset personality disorder. If the general criteria are followed literally, specific types of personality disorder cannot increase in prevalence as people get older (Widiger & Seidlitz 2002).

The specific features of some types of personality disorder seem to increase in frequency as people get older (e.g., schizoid personality disorder), whereas other types of personality disorder decrease in frequency (e.g., antisocial and borderline personality disorder) (Engels et al. 2003, Grant et al. 2008). The latter phenomenon is sometimes described as burnout when it implies recovery by a person who formerly exhibited symptoms of the disorder. Conclusions regarding burnout of personality disorders are based on several kinds of evidence. One type of evidence comes from follow-up studies of patients who have received treatment for personality disorders, almost always as young adults. The CLPS Study is one example. Shea et al. (2009) followed a sample of approximately 200 patients treated for BPD over a period of six years and reported similar levels of improvement for younger patients as for older patients (though the upper age limit for participation in that study was 45). Other studies that followed treated patients were reviewed by Paris (2003). A large proportion of those patients do, in fact, show significant improvement in their condition over a period of several months. The results must be interpreted with caution, however, because the original samples all included people who were sufficiently disturbed to seek treatment, and their improvement could reflect something as simple as regression to the mean.

Longitudinal studies of community samples are also important in this regard, but they have been limited to those extending from adolescence into young adulthood. For example, Cohen and her colleagues reported that the amount of personality pathology exhibited by participants in the CIC Study decreased steadily from adolescence into young adulthood (Cohen 2008). That pattern is, of course, very interesting, but it leaves open the possibility that different patterns might emerge as participants progress through middle age and into later life.

Evidence regarding the prevalence of specific personality disorders in later life comes exclusively from cross-sectional comparisons of younger and older people, using DSM-IV thresholds to decide whether or not each person qualifies for a specific personality disorder diagnosis. Unfortunately, relatively little evidence has been collected in longitudinal studies.

Rather, these developmental inferences are drawn on the basis of cross-sectional comparisons between younger and older participants. The evidence is not overwhelming, but several studies indicate that Cluster A disorders—paranoid and schizoid personality disorder—and Cluster C disorders—obsessive-compulsive personality disorder—are more prevalent among older people than younger people (Abrams & Horowitz 1999). In contrast, Cluster B disorders—especially borderline and antisocial personality disorders—are less prevalent among older people than younger people (e.g., Samuels et al. 2002). This pattern is interesting, but considerable caution must be exercised in drawing conclusions about patterns of change on the basis of this evidence. Cross-sectional studies necessarily compare people from different age groups who are living in different contexts. Differences in the extent of social isolation or dependence might reflect variation in life circumstances for younger and older adults rather than true developmental changes in the prevalence of specific personality problems. We return to this point later in the section on measurement.

An important study, known as the National Psychiatric Morbidity Survey (NPMS; Singleton et al. 1998), reported on the prevalence of psychiatric disorders in the United Kingdom. A representative sample of 8,888 adults between the ages of 16 and 74 completed initial interviews regarding symptoms of various mental disorders. Data from this study have served as the basis for interesting papers regarding comparisons between younger and older participants as well as the potential impact of transitions, such as retirement, on mental health. Evidence suggests, for example, that men experience a somewhat dramatic decline in disorders related to anxiety and depression around the age of 65, perhaps in conjunction with retirement. Women showed a peak in prevalence rates around age 50 and then showed a more gradual decline in anxiety and depression over the next 25 years (Melzer et al. 2004).

The NPMS data set has also been used to provide estimates regarding differences in the frequency of personality disorder symptoms among people who are at various points of the lifespan (Coid et al. 2006, Ullrich & Coid 2009). The personality disorder measure used during the initial interview phase was the questionnaire for the Structured Clinical Interview for DSM-IV Personality Disorders (SCID-II; First et al. 1995). In a second phase of assessment, 626 participants were selected to complete a semistructured clinical interview for symptoms of psychosis and personality disorders. Prevalence rates for any personality disorder decreased across age groups: 16–34, 11.4%; 35–54, 12.3%; and 55–74, 7.4%. More detailed age comparisons regarding the prevalence of specific symptoms for each disorder, as identified in the full sample using the self-report questionnaire (not interview), were subsequently reported. Comparisons across age groups indicated increased frequency across age groups for symptoms of schizoid and obsessive-compulsive personality disorder. Conversely, the data indicated a decreased frequency across age groups for all of the other forms of personality disorder.

The tentative evidence that has been reported suggested the possibility that the prevalence of certain features of personality pathology may change over the lifespan. We have already mentioned some of the conceptual and methodological challenges that temper our enthusiasm regarding these findings. As if the situation were not already sufficiently complex, two additional issues are also important and move us farther beyond the question of how many people “have” a personality disorder and whether that number changes as a function of age. One important topic involves how we set diagnostic thresholds. It seems reasonable to consider the possibility that, defined in terms of impact on subjective distress and social adjustment, the threshold for a specific personality disorder should vary as a function of age. We return to this issue later in this review.

The second issue concerns age-related changes in the expression of specific symptoms of personality disorder. For example, cross-sectional comparisons of younger and older

patients being treated for BPD suggest that older patients are less likely to experience problems related to impulsivity and suicidal behavior, but symptoms related to emotional distress (depression, anxiety, and difficulty controlling anger) were more consistent across age groups (Stepp & Pilkonis 2008). As in most other studies, the upper age limit in this study was 50. A 10-year follow-up evaluation of nearly 300 BPD patients, recruited during inpatient treatment between the ages of 18 and 35, found that marked improvement in some types of symptoms was frequently accompanied by persistent problems in other areas (Zanarini et al. 2007). Major improvements were most often seen in self-mutilation and suicidal behavior. Problems managing anger, dysphoria, and interpersonal difficulties related to fears of abandonment and dependency were the most stable symptoms of BPD. This study suggests important issues that should be explored systematically with middle-aged and older adults.

The most informative practice regarding the frequency and impact of personality disorders in later life is not simply counting things (How many tall people are there in the world? Do people get shorter as they get older?). Yes, you may shrink an inch or two. And you might lose 90% of your vertical leap, if for some reason we are still interested in your ability to play basketball. But the most critical issues regarding physical strength change in important ways as we grow older. Similarly, the impact of personality disorders is likely to change as we grow older, and these issues should be examined in the context of other relevant work on health and social adjustment in later life. We need to understand changes in patterns of personality pathology over the entire lifespan, and we need to draw out connections among these variables and other aspects of adjustment in later life.

IMPACT OF PERSONALITY DISORDERS IN LATER LIFE

If personality disorders are meaningful constructs, then they should predict important outcomes—that is, they should have good construct validity. Late life presents a unique opportunity for researchers to examine the effects of personality disorders on important outcomes, such as diminished health and even death, as these are typically late-life events. In assessing these outcomes, however, one must be vigilant about the fact that there are still many unanswered questions regarding the definition and nature of personality disorders. British psychiatrist R.E. Kendell (2002) made the following recommendation after reviewing the status of research on personality disorders:

> There is a glaring need for a better classification of personality disorders and for more long-term follow-up studies of representative samples, derived from community rather than clinical populations, to answer basic questions about the extent, nature and time course of the handicaps associated with different types of personality disorder.

There are unquestionably many ways in which the definition of personality disorders could be improved, and a group of leading investigators is currently grappling with the problem of revising their classification for DSM-5. Unfortunately, the field will not be able to settle contentious arguments regarding the most appropriate definitions of personality disorders until competing alternatives are evaluated in relation to adaptive functioning. The collection and analysis of these data will take time.

The literature on personality pathology must be linked to important advances in the basic science of personality, where emphasis has recently been placed on considering the link between traits and consequential outcomes in people's lives (Ozer & Benet-Martinez 2006, Roberts et al. 2007). Many domains are relevant. Among those that have been shown to be influenced by personality traits are health and longevity, social adjustment, marital relationships, and the experience of major life events. In the following sections, we review

each of these topics and consider ways in which the study of middle-aged and older adults may provide unique opportunities to evaluate the impact of personality disorders on important life outcomes.

Health

Personality pathology is clearly related to a wide variety of health and general medical outcomes. The literature on this topic represents an extension of a broader set of evidence indicating that personality traits play an important role in relation to various long-term aspects of physical health (Lahey 2007, Smith & MacKenzie 2006). Most studies regarding the connection between personality pathology and physical health have focused on young adults. For example, personality problems identified during early adolescence have been found to predict ongoing medical problems over a 20-year follow-up period (Chen et al. 2009). BPD is related to increased risk for obesity and diabetes (Frankenburg & Zanarini 2006), whereas schizoid, avoidant, and obsessive-compulsive personality disorders are associated with increased risk for coronary heart disease (Pietrzak et al. 2007). In addition to the fact that they experience more physical health problems, patients with personality disorders consume more health care resources (in both the mental and physical health care sectors) than do people without personality disorders (Bender et al. 2006, Jackson & Burgess 2004, Soeteman et al. 2008).

Subjective perception of health is a global consideration that has been shown to predict mortality in older adults above and beyond objective measures of physical health (Jylhäa 2009). Subjective health perception is also linked to personality; people with higher levels of neuroticism report worse impressions of their own health, independent of physical and mental health issues (Goodwin & Engstrom 2002). Powers & Oltmanns (2011) examined personality and personality disorders in relation to subjective perceptions of health in a sample of approximately 700 middle-aged community residents. They found that borderline, antisocial, and schizoid personality disorders were significantly associated with self-rated health after controlling for objective health, neuroticism, and depressed mood.

Longitudinal data are sorely needed to examine more specific questions regarding the role that personality disorders actually play in affecting various health outcomes. One important issue involves the relation between personality and other mental disorders, such as depression and substance use disorders. Do personality disorders influence health outcomes directly? The evidence is inconsistent on this point. Some studies indicate that personality plays a direct role on health outcomes, whereas others suggest that the impact of personality disorders on impaired functioning is based on high levels of comorbidity with Axis I disorders (Coid et al. 2009, Lenzenweger et al. 2007). Another important consideration is how personality may influence health behaviors, such as smoking, drinking, and exercise. And finally, personality may influence health outcomes through its association with adherence to procedures and treatments that are prescribed after a medical problem is diagnosed.

Several aspects of health become particularly important as people get older. One is simply that the incidence of disease increases in direct proportion to age, providing more potential opportunities to demonstrate the impact of personality pathology on health outcomes. Therefore, the investigation of personality disorders in later life might capture associations that are not seen in younger samples. Another consideration is that some forms of disease are first evident in elderly people, particularly various forms of dementia, and these health outcomes can only be examined in late life.

The increased prevalence of dementia in later life provides an important target for evaluating the potential impact of personality pathology. Several studies have demonstrated that

changes in personality may be among the earliest signs for the onset of Dementia of the Alzheimer's Type (e.g., Balsis et al. 2005). More recently, research suggests that age-related declines in neural integrity are associated with specific personality traits. For example, higher neuroticism is associated with reduced brain volume in the prefrontal and medial temporal regions (Jackson et al. 2009). These findings reflect cross-sectional comparisons and remain to be evaluated in longitudinal studies, but they suggest the possibility that personality moderates the impact of aging on brain structures.

Health and longevity are clearly the ultimate criteria to be used in evaluating the construct validity of personality pathology. From an evolutionary point of view, the two most important negative consequences of disease are increased mortality and decreased fertility (Kendell 1975). Other domains of adjustment must also be considered, however, because they represent real-life outcomes that affect the quality of a person's life and because they, in turn, have an effect on health and longevity. These important outcomes include social relationships, marital adjustment, and the experience of major life events. In the following sections, we review briefly each of these topics as they relate to personality disorders and later life.

Social Relationships

Social support has been linked consistently to physical health outcomes (Urchino 2009). Relationships with others influence a wide variety of relevant factors, including perceptions of health problems, the development of appropriate coping skills, and the maintenance of positive health behaviors. To the extent that personality disorders interfere with the development and maintenance of strong social networks, they could also increase mortality.

Personality disorders are certainly associated with impaired social functioning. In clinical samples, personality disorders are typically associated with impaired social functioning and increased interpersonal conflict (e.g., Kool et al. 2000, Nur et al. 2004, Skodol et al. 2002, Zanarini et al. 2005). Some studies also report higher levels of social impairment and interpersonal conflict among people with personality disorders in community samples (e.g., Bagge et al. 2004, Jackson & Burgess 2004, Johnson et al. 2000, Lara et al. 1997, Oltmanns et al. 2002, Trull et al. 1997). People who exhibit symptoms of schizoid, avoidant, and schizotypal personality disorders have smaller social networks, and they are less centrally located in them (Clifton et al. 2009).

The specific ways in which personality disorders affect social networks in later life have not been examined in detail. Efforts to do so clearly must be based on systematic knowledge regarding the nature of social relationships among older adults. It would come as no surprise that people who exhibit higher numbers of symptoms of Cluster A and Cluster C personality disorders may find themselves with smaller social support networks and therefore be less able to cope with the onset of serious health problems. The impact of Cluster B disorders, such as narcissistic and antisocial personality disorder, on social support and health problems are less obvious but nevertheless important.

Socioemotional selectivity theory (Carstensen et al. 1999, Charles & Carstensen 2010) provides an important conceptual framework for thinking about social relationships and their potential link to personality pathology in later life. Viewed from this perspective, perception of time plays a central role in the ways that people choose to pursue their social goals. When time is perceived as being limited—as in later life—people place a greater emphasis on emotional goals and typically choose to concentrate their resources on the maintenance and enjoyment of their most meaningful personal relationships. As a result, successful aging is associated with pruning of social networks into smaller but closer relationships (Antonucci et al. 2004, Lang & Carstensen 2002). Evidence regarding personality disorders and social

relationships in young adults suggests that some forms of pathology, especially narcissistic, histrionic, and antisocial personality disorders, may interfere with this process. People with these disorders are generally perceived by others as being attractive and outgoing. They make positive first impressions and seem to find it easy to make new acquaintances. On the other hand, they also become increasingly disruptive and irritating with repeated exposure, frequently driving other people away from them. It therefore seems likely that people with Cluster B forms of personality pathology may continue to experience a high rate of turnover in their social networks, as some people fall away and continue to be replaced by others (Balsis et al. 2010). Thus, they would not be able to focus on and benefit from long-term, meaningful relationships. It is also possible that people with Cluster C forms of personality pathology (avoidant and dependent) may also be unable to prune these social relationships because they cannot appropriately attach to supportive relationships. Both groups may fail to benefit from supportive relationships in late life, albeit for different reasons. Further longitudinal research will be needed to examine these predictions.

Marital Adjustment

If older adults are generally biased toward an emphasis on the positive aspects of close relationships, the most important reflection of that process will be found in marital adjustment. Most research on satisfaction in marriage has focused on young adults, but some evidence does point toward increased happiness in couples that have been together for many years. Well-being in long-term marriages seems to be influenced by factors that are somewhat different from those factors that have been identified in younger couples (Schmitt et al. 2007, Seider et al. 2009, Smith et al. 2009).

Longitudinal evidence shows that there are important changes in marital satisfaction that follow specific transitions for older couples. For example, Gorchoff et al. (2008) examined the empty nest phenomenon, i.e., when children grow up and the parents can return to living on their own. Women's marital satisfaction increased as a function of enjoying more time with their husbands, independent of the actual amount of time that they actually spent. Personality variables were not included in these analyses, but the study's design points to the potential importance of considering changes in satisfaction before and after transitions as a function of personality variables in both members of the couple.

Long-term marital conflict is associated with increased health problems in older adults, and this link seems to be mediated by physiological changes. Kiecolt-Glaser et al. (1997) studied older couples (ages 55–75) that had been married for approximately 40 years. They were brought to a lab where they engaged in a conflict discussion while endocrine and immunological responses were monitored. Men and women who displayed less adaptive immunological responses were also those who engaged in more negative behavior during their staged conflict discussions, and they also described their usual marital disagreements as being less constructive.

Among young adults, personality disorders have been clearly linked to problems in marital adjustment (South et al. 2008, Whisman et al. 2009). Partner aggression, including verbal and physical abuse, is a related topic that is also connected to personality disorders. Although the prevalence of marital aggression and abuse declines with age, epidemiological evidence suggests that it is still present in older couples, and it can have an extremely deleterious effect on the health of the victim (O'Leary & Woodin 2005, Vickerman & Margolin 2008). The bottom line in this literature is that we simply don't know much about these issues as they relate to later life. The literature could gain much by addressing these issues head-on: What are the lifelong effects of a personality disorder on marital satisfaction, health, health of the spouse, the dynamics of the relationship, and so forth?

Life Events and Transitions

The experience of stressful life events and the ways in which the person responds to these challenges represent another extremely important domain to consider in the effort to understand factors that influence health and longevity (Monroe 2008). Several considerations are important in this regard, especially with respect to aging. One is that certain kinds of life events have a direct influence on health. Accidents and injuries are obvious examples. Other challenging life events may influence health by provoking or exacerbating the appearance of maladaptive personality characteristics. Older adults face the onset of many changes, such a loss of a spouse and close friends, changes in residence, and retirement, which may bring adjustments in both the ways the person thinks about herself as well as ways in which she spends her time. New financial challenges may also arise as a result of these life events and transitions. Studies that plan to examine the impact of personality pathology on adjustment in later life clearly need to monitor the occurrence of major life events.

Past research on the relation between personality pathology and life events has focused almost exclusively on young adults. Several studies have reported a significant association between high levels of personality pathology and increased reports of stressful life events (Samuels et al. 1994). Pagano et al. (2004) found that BPD was related to an increased number of reported stressful life events, with evidence for decreased psychosocial functioning following the experience of those events. Also, longitudinal analyses indicate that personality disorder symptoms in adolescence predict increased levels of family conflict in early adulthood (Johnson et al. 2004). With regard to personality traits, neuroticism has been linked to important negative life outcomes (Lahey 2009). Research has shown an association between neuroticism and reports of stressful life events using both subjective and objective accounts (Kendler et al. 2003, 2004).

Both the distribution and impact of different types of stressful life events undoubtedly change as people get older. Data from the U.K. National Survey of Psychiatric Morbidity (Jordonava et al. 2007) support this conclusion. The investigators compared the incidence of events such as bereavement, interpersonal problems, health problems, and financial difficulties across age groups (ranging from 16 to 74). The overall pattern indicated a significant decline in the frequency of threatening events with age, with some important exceptions. Most types of events decreased in frequency with age, including relationship breakdown (divorce or separation) and occupational difficulties, but others increased in frequency, including death of a partner and serious illness or injury to self. The strongest and most direct impact of personality disorders might be expected in the realm of interpersonal and occupational difficulties, which are more likely to be experienced by young adults.

Recent evidence collected from a representative sample of 650 community residents between the ages of 55 and 64 sheds further light on the relation between life events and personality in middle age (M.E.J. Gleason, A.D. Powers, & T.F. Oltmanns, manuscript under review). People who exhibited greater numbers of personality disorder symptoms during a diagnostic interview did report more stressful life events when they completed a questionnaire six months later. The most common events involved the onset of new health problems for the participants as well as serious illnesses and deaths among their partners, family members, and close friends. Higher scores on neuroticism were also correlated with the number of events reported. When the number of stressful life events was adjusted based on a standardized follow-up interview, however, the impact of personality and personality disorders disappeared. This result suggests that—at the broadest levels of measurement—higher levels of personality pathology and neuroticism do not predict the actual experience of more stressful life events in older adults. Rather, in this particular age group, the correlation between personality disorder scores and total score on a life-events questionnaire

seems to reflect subjective perception of life events, which are exaggerated in those who exhibit personality pathology. Of course, stressful experiences of an interpersonal nature, such as divorce and separation, were less frequent in this sample than they would have been in a sample of younger adults. And it is more specifically those kinds of events that are most likely to be associated with personality pathology. It remains to be determined, as this longitudinal study unfolds, whether specific types of personality disorder are related to the occurrence of interpersonal events, such as occupational and marital difficulties.

ASSESSMENT

Challenges Facing the Field

The accurate assessment of any clinical disorder is critical to understanding its role in the lives of those affected by it (e.g., Segal & Coolidge 2001). For this and other reasons, members of the DSM task forces throughout the years have worked to describe mental disorders thoroughly. For certain disorders, they have appeared to focus on the presentation of the constructs in younger adults. This is true most noticeably for mood disorders, anxiety disorders, and personality disorders. For mood and anxiety disorders, there has been a repeated effort to include somatic features (items) in their conceptualizations (Am. Psychiatr. Assoc. 1980, 1987, 1994). However, these somatic features do not always discriminate equivalently across younger and older age groups such that they may be less useful for identifying depression in the older groups (e.g., Berry et al. 1984, Zenmore & Eames 1979). For example, an item about sleep change that is intended to measure depression may be strongly related to the construct for younger adults, who in the absence of depression are relatively unlikely to experience significant sleep changes. Older adults, on the other hand, might experience sleep changes secondary to medications or physiological changes or illness, which are things that occur regularly in later life; they may experience sleep changes whether or not they are depressed (see Berger et al. 1998). As a result, these items and the constructs themselves can be thought to be younger centric. Researchers in the depression field have long recognized this and other problems with past measures of depression and have tailored tools specifically for the older adult population, largely by eliminating those items that don’t work as well for this population (e.g., Yesavage et al. 1983).

The point here is not to draw a parallel between the depression/anxiety literatures and ours, but rather to draw a contrast. The depression and anxiety literatures have addressed the issue of aging head-on and have benefited from this effort. Let’s look briefly at the gains made by the anxiety literature. In this literature, although it is true that certain researchers have been recalcitrant, opting not to adapt their concepts of anxiety or the measurement of it for older adults, other researchers have taken the view that somatic symptoms should be limited in measures, although not necessarily discounted in terms of the conceptualization of anxiety disorders in younger adults (Pachana et al. 2007). Still other investigators have chosen to break symptoms into clusters (cognitive, affective, and somatic) so that clinicians can easily know if an endorsement of somatic symptoms occurs alongside these other key symptoms, such as worry (Segal et al. 2010). Other fields have benefited immensely by considering later life samples and how mental health constructs present in later life. Researchers have had active theoretical discussions in the literature, created new measures, and begun to assess more accurately and treat more effectively these mental health problems in a broader swath of the population. The same thing could be accomplished in the field of personality disorder research.

For measuring personality disorders, however, the task becomes exponentially more complex because the presentation of personality varies not only across physiological contexts but also across social and occupational contexts (Mischel 1968, 2004). For

example, given a certain social situation (having to meet new friends in a dormitory or a retirement home), a person with an avoidant personality disorder might be likely to exhibit avoidance and uncertainty. But if that same person only had to sit at home and watch television, that avoidance and uncertainty would remain latent and possibly go unnoticed. Likewise, given a certain occupational context (being passed over for a promotion), a person with, say, a narcissistic personality disorder might react with anger or revenge. In the absence of this event, the narcissistic personality disorder may go temporarily undetected. Thus, the presentation of a personality disorder is intimately tied to contexts, contexts that can help to bring about the presentation of the features. We might hypothesize that the presentation of depression, in contrast, is less tied to context. People may feel sad regardless of whether they are in a new social situation, at home watching television, being promoted, or remaining steadfast in their job. Perhaps for this reason—the fact that the presentation of personality is so closely linked to context—the measures that assess personality disorders contain items that refer to specific or implied contexts (e.g., social, occupational).

Unfortunately, it seems that personality disorder criteria were written to reflect the presentation of these disorders in a younger context (Balsis et al. 2007a). This is a major problem that the psychometric literature is beginning to wrestle with when dealing with the measurement of these constructs in older adults (see Mroczek et al. 1999). The presentations of personality disorder features are tied to specific contexts. It is challenging to create items that will work equally well for younger and older adults because younger and older adults live in somewhat different contexts.

We notice this problem quickly when we attempt to study personality in older adults (Agronin & Maletta 2000). Even a cursory examination of the diagnostic criteria reveals that they have poor face validity in this population. The items “Avoids occupational activities,” “Lack of sexual enjoyment,” and “Prefers solitary activities.” are just a few examples of those that have obvious problems when applied to older adults whose different occupational, physiological, and social contexts, rather than the degree to which they have personality pathology, might determine endorsement of these items. This problem with face validity isn’t merely a surface issue. It can be shown empirically (Balsis et al. 2007a) and has serious downstream implications for the accurate assessment of these disorders (Balsis et al. 2007b). It affects the reliability, validity, and utility of our measures. It ultimately determines our epidemiological data, and they form the basis for much of our theory.

Reliability, validity, and utility are closely linked psychometric issues, and they are all influenced by problems with face validity (Balsis et al. 2009). How is a retired participant or a clinician assessing a retired client to use a scale to measure avoidant personality disorder if it includes the item “Avoids occupational activities”? This item simply doesn’t apply. One may decide to apply the item at face value. Another may decide to modify it, while yet another may decide to disregard it (Balsis et al. 2007b). As different decisions are made across cases regarding how to use items with poor face validity, the reliability of the scale suffers. And these different decisions likely get made more often with older participants than with younger adults as users attempt to adapt the scales to older adult clients. With poor reliability, there necessarily has to be poor validity and utility. Being able to reliably assess a phenomenon is a necessary (but not sufficient) condition for a valid and useful measure. What should a clinician or researcher do? This is a challenging question that the field needs to address. Considering this question will likely lead to the potentially fruitful goal of determining what sorts of features or items would work equivalently across these age groups. It’s one thing to come up with an item that works equivalently across age groups. It’s another thing to come up with one that works equivalently across age groups and reflects the key concepts that are integrally linked to these contexts—contexts that differ across age groups. These are legitimate, critical, and fundamental challenges for our field. Considering

assessment issues in older adults helps to reveal these challenges, which is a necessary first step to meeting them.

Researchers are just beginning to develop personality assessments for older adults. Van Alphen and colleagues (2006) have created a measure specifically designed to assess personality disorder pathology in older adults. This measure consists of 17 items that broadly screen for personality disorder concepts, but it does not measure any personality disorder in particular. Although this sort of measure is helpful, there are still challenges when trying to examine personality disorders across age groups. In this case, the different measures themselves constitute a confounding variable. So any differences (or similarities) across groups could be artifacts of using different measures. A researcher studying personality disorders longitudinally would face the same problem. One age group gets one measure while another age group gets a different measure. Would researchers begin with a measure designed for the relatively younger sample and then as a participant's age increases shift to the Van Alphen measure? At some point during the study the researcher would have to decide to switch measures. Differences across assessments could be artifacts of the different instruments.

Another approach, of course, is to identify a measure with items that contain no measurement artifact. This is a task that has fundamental implications for our understanding of personality disorders because it forces us to isolate items that work equivalently across all age groups. To do this, we must isolate the essential aspects of personality. So for example, the item "Avoids occupational activities" may contain bias across age groups and different contexts. But the more general concept of social avoidance might be a key ingredient for this particular personality disorder. Perhaps an item could be written in a neutral manner to capture the phenomenon in an equally valid way across the two groups. The problem still arises, how do you know that the item works equivalently well across both age groups?

Thankfully, there is a statistical approach that can help solve this problem. Item Response Theory (IRT) provides a way to identify those items that contain no measurement artifact across age groups (see Embretson & Reise 2000). The mechanics of IRT can help investigators do two things. One, they can help investigators develop tests that are free of measurement artifact across age groups (and over time). Two, they allow for accurate estimation of personality features across age groups (and over time), even in the face of measurement bias (see McArdle et al. 2009). Regarding measurement development, IRT can be used to identify items, subscales, and tests that contain no measurement bias. A group of items could be created, for example, and tested across a broad range of age groups and even longitudinally. Next, the items could be examined to determine if they function equivalently across age groups. Finally, those items that work equivalently across all age groups can be selected and included in a measure.

To get more specific, consider this point. Within the IRT framework, one could ask and answer this question: When younger and older adults have the same degree of narcissism, do the observed results on this measure reflect similar levels of the latent trait, narcissism? In other words, using IRT we can determine if younger and older adults differ in whether they will endorse a given item and whether this potential differential endorsement of items reflects a true difference in the amount of narcissism across age groups or whether it reflects the influence of a third variable across the age groups. Consider this hypothetical item, "Disregards family needs in pursuit of success." This item may not measure narcissism in an older adult as well as it does in a younger adult. An older adult might not be as focused on striving for success as a younger adult because of the older person's life context (perhaps they are already retired or have reached many career goals). Therefore, even when the older and younger adults have the same degree of narcissism, the older adults may be much less

likely to endorse the item. IRT testing could be applied to items, such as the example item just given, to determine the underlying causes of the differences between groups (true differences in narcissism or differences related to some third variable). This same approach can be used for testing subscales and entire tests.

IRT also can be used to assess possible differences in personality across groups and changes in personality disorders over time, even when a measure contains measurement bias—a comparison that is not possible using simple comparisons of raw scores (see McArdle et al. 2009). With IRT, a latent construct can be measured, for example, at Time 1 and measured again at Time 2, and then an investigator can assess whether the latent construct (e.g., narcissism) has changed from Time 1 to Time 2 by taking into consideration any measurement biases during the different assessments. IRT takes into consideration how item properties may have changed from Time 1 to Time 2 (across age groups) by weighting the items according to their relationship to that latent variable at the various assessments. In other words, IRT can help an investigator weight each item differently for different measurement occasions according to each item's actual ability to identify the constructs. Using this basic principle (and a couple extensions of it), we can begin to study the course of personality disorders despite item or test differences between age groups. Thus, IRT provides an elegant technique to study personality disorders across age groups and over the lifespan, given that many measures contain items with questionable face validity. Thinking about issues of personality disorder assessment as they relate to later life forces us to develop and/or apply more sophisticated measurement models to more accurately answer our research questions.

DSM-5 Proposal

The DSM-5 Task Force has proposed a new system of measurement to address several basic challenges in our field (see http://www.dsm5.org/). The Task Force is attempting to reduce overlap between concepts and guide the transition from a categorical model of classification to a model that reflects the dimensional nature of personality (e.g., see Widiger & Clark 2000 for a rationale for moving from categories to dimensions). The DSM-5 proposal includes two key components: (*a*) a prototype-matching system (see Mullins-Sweatt & Widiger 2009 for a discussion of relevant issues) and (*b*) the application of six broad personality dimensions. At least one of these components creates significant problems for measuring personality in later life. When considering the prototype-matching approach, a researcher interested in personality disorders in later life would wonder, "What age is the prototype?" The second author of this review posed that question to one member of the DSM-5 Task Force, and that member replied that the prototype is a younger adult. We would agree with the member that most of the research so far has been focused on younger adults and that the current conceptualizations of the features focus on younger adults. We are cautious, however, about accepting the assumption that these prototypes should be younger adults. The decision to base the DSM-5 system on a younger adult prototype should be articulated and empirically defended. In addition, we might question whether there is a prototype at all and whether a complex prototype should be included in a measurement system. That conversation is beyond the scope of this review. Our focus here is on the practical consequences of having a prototype system that is based on the model of a younger adult.

What does basing the prototypes on younger adults mean for the accurate assessment of personality disorders across all life stages? Regardless of the true nature of these phenomena across the lifespan (whether they intensify or burn out, for example), we could simply assume that older adults will look less like the prototype than younger adults, even if they have the same degree of personality pathology. Consider the prototype for antisocial personality disorder. If the prototype is younger and antisocial, this means that a younger

man will more closely resemble the prototype than the same man (here we're assuming the same degree of antisocial pathology) when he is older, for the simple fact that he is older and now is less like the prototype. Given a younger adult prototype, epidemiological data would be expected to show that younger people have more of the trait than older people, simply because younger people will resemble the prototype more than older adults. In addition, longitudinal studies would be likely to show movement away from the prototype (a decrease in pathology) over time. And our theories might develop in a way that favors the conclusion that personality disorders mellow or soften with age. The point here is not to comment on whether this conclusion is, or is not, accurate. The point is to simply note that we might draw conclusions and build theories based on a measurement system that produces systematically flawed data.

Oltmanns & Balsis (2010) illustrate the problems of using younger-centric criteria for assessing personality disorders in older adults, which are similar to the problems of using a younger-centric prototype. This review included a description of an older man named John. When John was younger, he had a very bad temper that often got him into trouble. He was regularly in detention at school and was considered a class bully. John had poor grades in high school, and with limited career options, he decided to go into the military. He hoped that entering the military would give him a chance to develop his career skills. John's career hopes were diminished, however, when he was discharged prematurely—an event that was described only vaguely as the possible result of pulling pranks on his peers. Following this dismissal, and after changing jobs several times, John eventually became a police officer. He hoped that this job would allow him the ideal (and legal) opportunity to enact revenge on rule-breakers who had become the object of his intense rage. Unfortunately, he soon found that his usual practice of writing tickets to individuals was not enough to satiate his powerful urges for retaliation. He became increasingly aggressive on the job and was written up several times for exerting too much physical force. Ultimately he was reassigned to desk duty for many years. He was eventually allowed back into the field, not because of good behavior but instead because he had apparently alienated his fellow officers at the police station and was no longer wanted there. Once John was back in the field, he redirected his anger toward the "establishment," an antagonist that he can only vaguely explain. He no longer expressed anger toward, or directed aggression at, those who committed crimes. Instead, he looked upon them with indifference and allowed them to violate the law. This passivity, he explained, was his way of getting back at "The Man."

Although John clearly met a diagnosis of antisocial and borderline personality disorders when younger, his current therapist had a difficult time applying many of the DSM diagnostic criteria to his present situation. For example, although John had in the past met antisocial personality disorder criterion #4 (repeated physical fights or assaults), his aggression now manifested itself in nonviolent (though malicious) acts of retaliation, such as the letting of air out of people's tires. Further, whereas in earlier life he would have met antisocial personality disorder criterion #1 (performing acts that are grounds for arrest) in the form of physically violent confrontations, he would later harm society in his role as a police officer by spitefully allowing violent crimes to go unpunished. If John were compared at Time 1 to a prototype based on a younger adult that included these symptoms to the same prototype at Time 2 (the present time), he would be rated differently despite the fact that he has the same antisocial tendencies. John's disorder clearly presented differently in late life than it did when he was a young man.

Examining personality disorders in later life allows us to explore issues of stability and change in personality disorder pathology and to examine how our assessment strategies might influence these results. But in each of the instances we described, using a prototype that is based on a younger adult would probably lead to the conclusion that older adults are

less pathological than younger adults and that personality pathology mellows over time. As we have seen, however, both of these conclusions could be erroneous.

There are other problems with using a prototype-matching approach when the prototype is based on a younger adult. One is that item information is not retained using a prototype-matching approach, which means that we cannot assess the contribution of potential item differences to assessments based on the prototype (Cooper et al. 2010). As with other prototype-matching theories in psychology, the idea is that clinicians or researchers would determine that a person has a specific personality disorder if the client's symptoms matched those of the prototype for that personality disorder. The symptoms of the prototype are, as Westen et al. (2006) explain, a collection of items woven together. Users are instructed to determine whether the collections of items as a whole resemble the patient's personality, rather than focusing on individual features or items. The prototype approach presents problems of diagnosis and of data interpretation. For example, using this approach, it is very difficult to anticipate what sort of weight individual clinicians would give to certain personality disorder features and what they would do if a particular feature did not apply to a client. This would complicate the interpretation of the data because even if a particular feature functioned differently across younger and older adults, there would be no realistic way to consider this information psychometrically. That feature would be lumped together with the other features in the prototype grouping. Essentially, the ability to see problems across younger and older adults would be masked. Therefore, if a system contains measurement bias at the feature level, the only way to thoroughly consider this bias (as far as we know) when assessing an older client is to have scores on each feature so that the scores and the relationship between the feature and the construct of interest can be considered within a sophisticated measurement model. Simply lumping all of the biased (and nonbiased) features together masks the source of any potential measurement artifact.

Our thoughts on this issue are in no way conclusive. The field has to consider the possibility that using a prototype could also reduce measurement bias. Matching to a prototype might allow one to ignore specific items or parts of items that don't work well for a specific age group and instead capture the essence of the disorder that isn't specific to an aging context. Perhaps that would only happen if the items were lumped. For now, this is an open question.

We have been discussing one part of the new proposal for DSM-5—the use of a prototype-matching approach. The other part of the proposal—to focus on the dimensional nature of personality by focusing on traits—is perhaps less controversial for assessing personality disorders across the lifespan. In contrast to the DSM personality disorder criteria, research shows that assessments of personality traits contain little measurement bias across age groups. But at the very least, an investigator could model the items, determine the degree of artifact, and then statistically account for the artifact when estimating each key personality dimension for each client. In addition, focusing on individual traits appears to allow clinicians to make ratings on individual items, which would indeed allow researchers to take possible item differences into account when assessing these traits across the lifespan. However, the focus on traits may not outweigh potential problems with using the prototype, as it has been suggested that the prototypes will take precedence over the traits (see Cooper et al. 2010 for discussion). For now, we will have to wait on the final recommendations from the DSM-5 Task Force.

Diagnostic Thresholds

The new diagnostic manual will bring change. What is likely to remain unchanged, however, is the use of diagnostic thresholds because inevitably clinicians will need to make decisions (e.g., diagnostic decisions). We find it helpful to look this issue through a measurement lens because we can only understand the issue at hand if major measurement

problems do not get in the way. If there are measurement problems, they must be examined first. In the following paragraphs, we apply the same logic to interpreting diagnostic thresholds and their use for identifying personality disorders in older clients.

At least two interrelated measurement issues with using thresholds hinder our ability to determine the extent to which personality disorders are present in later life. First, a personality disorder diagnosis rests on a threshold that is somewhat arbitrary (Clark 1992, Hyman 2002, Livesley et al. 1994, Oldham 2007, Shea et al. 2002, Widiger 2007). Imagine a scenario in which a person is subthreshold for most of her life and then crosses the (arbitrary) threshold for the first time in later life. This might occur when contextual demands of aging bring about certain personality disorder features. Or, a person might be above threshold for most of her life and then fall below the arbitrary threshold for the first time in later life. With either scenario, we need to ask, “What does crossing this arbitrary threshold really mean?” Asking this question forces us to think more deeply about diagnostic thresholds. The current thresholds aren’t clearly associated with functional outcomes, but there might be real value in assessing these connections. If thresholds were linked to functional outcomes, one would have a better understanding of what it means to be just below or just above the threshold. When research studies begin to link thresholds to function, it may become clear that these thresholds should be different across age groups. Whereas a younger adult with four narcissistic personality disorder features might function poorly, an older adult with four might do just fine given fewer social and work demands. Of course, this could go the other way, too. The older adult might fare worse than the younger adult because the older adult may have fewer ways to compensate in later life. Either way, thinking about personality disorders in later life and how concepts come together around this idea of diagnostic thresholds may bring critical attention to this fundamental measurement issue.

The second related issue we need to consider regarding diagnostic thresholds in later life is the fact that the DSM criteria are poorly specified for later life. In other words, clinicians who refer to the DSM items cannot be sure when they have identified an example of a specific personality disorder because they can’t be sure what they’re measuring. Because the DSM gives us less-than-ideal criteria, we need to think more broadly about personality disorder features and about measuring these features. What items should we be using? When faced with less-than-ideal items, how should we go about determining whether a person meets a diagnosis? Considering the issue of diagnostic thresholds in regard to later life makes us begin to push the boundaries of the classification system.

THEORETICAL PERSPECTIVE

We obviously do not have room in this review to discuss the implications of a lifespan perspective for all theoretical issues in the personality disorder literature. We elaborate extensively on just one, age of onset, as a demonstration of the potential advances that could be made by adopting a lifespan perspective.

Age of Onset

Age of onset is a critical issue with regard to many forms of medical illness and psychopathology. Unfortunately, relatively little attention has been paid to age of onset for personality disorders. In fact, there is virtually no empirical evidence on this topic (see Widiger & Samuel 2005, Widiger & Sieglitz 2002). The DSM-IV general definition of personality disorders specifies that a personality disorder must begin by adolescence (“adaptive failure can be traced back at least to adolescence”), and the assumption is that these characteristics are stable over time. Based on evidence provided by several follow-up studies with young adults, we now know that this assumption regarding stability is

exaggerated. Many personality disorder patients do improve over time, but longitudinal studies have not been conducted in later life. No one has studied a community sample of middle-aged or older adults for a sufficiently long period of time to determine whether new cases appear. Therefore, if the issue is considered in terms of relatively large-scale, epidemiological evidence, we do not know whether there is such a thing as late-onset personality disorder.

Our consideration of this issue should begin with a caveat regarding the DSM-IV definition. If we adopt the general criteria literally, a late-onset personality disorder is impossible, and the discussion is closed. That's not a very satisfying argument, however, because the decision to impose an early-onset criterion has not been subjected to empirical scrutiny. It hasn't even been discussed in the research literature. In actual practice and in many research studies, it is not clear that diagnostic decisions are guided closely by attention to information regarding when the features of the disorder were first evident. Some semistructured diagnostic interviews provide questions for this information, and others pay little attention to it (focusing instead on the past few years of the person's life). Self-report questionnaires tend to ignore the issue completely. The argument that late-onset personality disorders cannot happen by definition serves primarily to avoid interesting and substantial questions regarding the possibility of deterioration in personality later in life and mechanisms that might be involved in that process.

The literature regarding personality disorders stands in stark contrast to the literature on most other medical and mental disorders regarding age of onset. The age at which a person first exhibits symptoms of a specific type of disorder can be as informative as the specific type of symptoms that the person eventually exhibits. This information has been used in several kinds of investigations. Within diagnostic constructs, an earlier age of onset is often associated with more severe symptoms, a more chronic course, and poor response to treatment. This appears to be the case for bipolar disorder (Oedegaard et al. 2009), obsessive-compulsive disorder (Fontenelle et al. 2003), schizophrenia (Delisi 1992), and substance use disorders (Compton et al. 2009). When comparisons are made between diagnostic constructs, mean age of onset is an important variable used to evaluate discriminant validity. For example, the fact that average age of onset is much earlier for bipolar disorder than for major depression has been taken as one indication that the two represent different forms of mood disorder (Depue & Monroe 1978). Similar comparisons have been used to shed light on distinctions among different forms of eating disorders (Hudson et al. 2007). More recently, the search for biomarkers related to specific etiological pathways has placed a premium on the identification of more homogeneous groups within broader diagnostic categories. These efforts have included careful attention to age of onset within several different disorders, such as bipolar disorder (e.g., Leboyer et al. 2005), schizophrenia (Thompson et al. 2004), and major depression (Kendler et al. 2009). Taken together, these investigations suggest that variations in age of onset represent meaningful factors in our understanding of many, if not most, forms of mental disorders.

The National Comorbidity Survey Replication included a detailed assessment regarding age of onset in mood, anxiety, impulse-control, and substance use disorders among more than 9,000 adult participants (Kessler et al. 2005). The average age of onset for all of the disorders included in this study was relatively young. Nevertheless, some important differences were found. The average age of onset was much younger for anxiety disorders than for mood disorders. Furthermore, the distributions for age of onset were also quite different; a narrow range was found for impulse control disorders and anxiety disorders, whereas much wider ranges were found for mood disorders and substance use disorders.

Although most mental disorders first appear during adolescence or young adulthood, some people do experience their first significant symptoms later in life. Late-onset cases are recognized for many forms of disorder, including psychosis (Jeste et al. 1997, Ostling et al. 2007, Symonds & Jeste 1999), mania (Young & Klerman 1992), depression (Angst 1999, Sneed et al. 2007), and anxiety disorders (Jeste et al. 2005). Some comparisons between early-onset and late-onset cases suggest interesting differences in both etiological pathways and effective treatment methods. Other investigators have argued that the disorder is the same, with a standard variability in age of onset across patients (Riecher-Rossler et al. 1997). The point is not that it always makes a difference but rather that this vibrant aspect of the literature is lost on personality disorders.

Recognition of these differences in age of onset has stimulated a change in diagnostic criteria for some disorders. DSM-III required onset before age 45 for schizophrenia, but that requirement was eliminated in DSM-III-R. A similar discussion is currently being held with regard to the age-of-onset criterion for attention deficit-hyperactivity disorder. DSM-IV requires that symptoms must be evident by age 7 for the child to meet criteria for this disorder. Research studies have found that there are no obvious or important differences between cases with an onset before or after age 7 (Faraone et al. 2009, Kieling et al. 2010). Therefore, some leading investigators have recommended that the minimum age of onset be extended substantially or that the criterion be dropped so that further studies can investigate this phenomenon.

If an early age of onset has been dropped (or suspended) as a criterion for the diagnosis of other forms of psychopathology, why is it still a defining feature for personality disorders in DSM-IV? Many people have assumed that Axis I disorders are qualitatively different from Axis II disorders in a number of ways. Krueger (2005) considered this argument with regard to several issues, including age of onset, and concluded that there are no important differences. Clinical folklore and popular opinion have long held that personality disorders have an earlier age of onset than clinical disorders such as schizophrenia and depression. However, the empirical literature does not support this distinction. As Krueger pointed out, the DSM-IV definition of antisocial personality disorder includes two components: conduct disorder before the age of 15 and adult antisocial components. So in one sense, the manual does explicitly acknowledge that some manifestations of antisocial personality disorder can appear later than others. But why do we neglect the possibility that the disorder might appear later in the lifespan without documented evidence of childhood conduct disorder? Unlike DSM-IV, the *International Classification of Diseases* does allow the possibility of a late-onset personality disorder, but only if it occurs after a medical illness or after some sort of trauma. We are prone to ask, why impose these seemingly arbitrary etiological constraints? Wouldn't it be useful to know whether meaningful personality pathology can emerge later in life regardless of whether it is associated with any other specific events and experiences? If these changes can be identified reliably in some individuals, their connection to other causal mechanisms must become a next step in the sequence of empirical studies.

Examples of late-onset personality disorder have been reported in the literature. For example, Bernstein et al. (2002) described the case of a 45-year-old woman who first sought treatment when she was in her late thirties. She received medication for the treatment of depression but was later hospitalized when she experienced suicidal ideation and engaged in wrist cutting. Several hospitalizations followed, and she eventually received a diagnosis of BPD. After a brief description of the case, the diagnosis was discussed by three experts. Perhaps the most interesting aspect of this discussion is the fact that none of them considered seriously the possibility that her disorder emerged in middle age. Rather, they speculated that her problems went unnoticed earlier in her life because she had not been in treatment. The prevailing assumption in this discussion is that if more careful observations

had been made several years earlier, they would have identified features of the disorder. The possibility that goes largely unmentioned is that her problems emerged when she was an adult.

Why is the field so committed to the apparently unquestioned assumption that personality disorders must begin early in a person's life? Part of the explanation may be due to the long-standing assumption that personality remains stable over the lifespan. Of course, this is a controversial topic. Nevertheless, current evidence suggests that normal personality is not completely stable. And personality disorders may be much less stable than previously assumed. Follow-up studies suggest that some symptoms may remit over time. We do not know whether some personality disorder symptoms may emerge later in life, either with or without a foundation in related personality traits.

Another related issue involves the fact that the onset of personality disorders is difficult to identify. It is certainly true that the onset of more florid symptoms such as hallucinations or washing rituals or prominent drinking problems might be easier to pinpoint in time. But all forms of psychopathology have symptoms that emerge gradually. And many disorders are preceded by an extended prodromal period that is difficult to identify.

In the absence of a substantial literature regarding age of onset and personality disorders, we turn to the literature on personality traits. These studies show some evidence of change, which is most often gradual. If we think of personality disorders as correlates of these personality traits, we have to consider the possibility or the likelihood that the presentation of personality disorders may change similarly. Furthermore, when we think in terms of latent traits or propensities to behave in a certain way that becomes manifest (and perhaps troublesome) within a particular social context (which can change across the life course), it seems reasonable to argue that sudden onset is unusual or unexpected. That is different from saying, however, that late onset is impossible.

Thinking critically about age of onset as it relates to later life raises important practical and theoretical questions about personality disorders that our field ought to consider. Here are just a few of those questions: Is there any benefit to maintaining the assumption that onset in later life cannot happen? Is there any harm to be expected if the field would allow the possibility of a late onset, particularly as long as serious efforts are made to investigate the person's previous personality traits and features? How can we know when a personality disorder first became evident, particularly for a person who is older? Are people able to notice and remember these changes? Can self-report methods used to identify age of onset in studies of other mental disorders be adapted in a meaningful way to the study of personality pathology? Are views of one's own personality any more accurate when people are younger than when they are older (or vice versa)? More important theoretical questions should also be raised, extending to fundamental issues about the nature of personality disorders (Rutter 2005). Is age of onset for personality disorders related to severity of impact or response to treatment, as it is for many other disorders? Are there differences among various forms of personality disorder based on mean age of onset or the distributions of age of onset? Our goal in raising these questions and making this argument is not to suggest that age of onset should be ignored. On the contrary, it is our hope that the impact of our comments will be to increase the amount of attention that clinicians and investigators pay to this essential issue.

The Importance of Lifespan Theories

Anecdotally, we have found in discussions with older adults who participate in our studies that personality disorders are significantly at play in their lives, hindering their abilities to adjust to the demands of later life. Take for example, a recent case study of an older woman who was clearly narcissistic (Balsis et al. 2011). Her diagnosis was documented through

multiple sources and instruments, including trait measures that correlated 0.91 from time 1 to time 2. This woman was one of the most narcissistic individuals the authors had ever met, and her personality features were clearly present in younger and later life. As she was beginning to face her ninetieth year, she continued to demote individuals from her inner circle, engage people only if the communication or experience confirmed her self-worth, demonstrate an inability to stand in somebody else's shoes, constantly focus and redirect focus to herself, display extreme callousness at others' hurt feelings or difficult situations, and demonstrate many self/other misperceptions. Despite all of this, it was difficult to document her condition using the current diagnostic system. She barely reached threshold for narcissistic personality disorder. It became quite evident that a lifespan perspective helped tremendously to understand her personality.

Relatively few theories of personality have explicitly addressed the later lifespan, but Erikson's model has been particularly influential in this regard (Erikson 1950). When examining this case relative to Erikson's theory, we were able to see clearly that she was having trouble managing the various stages of adult life. She could not find intimacy. She had been divorced twice and in any given year had been involved with dozens of men in serial relationships. As she grew older, she wasn't particularly generative, showed little to no interest in parenting, and working only inasmuch as it boosted her self-esteem. And finally in this last life stage, she faced the end of her life in despair (although she might not describe it that way). She had very few, if any, meaningful relationships, clung to youthful fashions and beauty, and could not validly recall her contributions to the world. Relatively little attention has been directed to these issues in relation to personality pathology, but a recent theoretical perspective regarding narrative identity seems particularly relevant and might provide an important framework (McAdams & Olson 2010). According to this perspective, the stories that people tell about themselves play an increasingly important role in their personalities later in life. A lifespan perspective might benefit substantially from further consideration of the relative importance of narrative identity as a complementary level of analysis relative to personality traits in revealing the nature and impact of personality pathology in later life.

LOOKING FORWARD: LIFESPAN SAMPLES

We conclude this review with a very practical point. If we are going to make meaningful advances in the directions outlined herein, we need to be able to locate and study lifespan samples (Kendell 2002). Many issues regarding the measurement and impact of disorders will need to be addressed prospectively in representative community samples. The recruitment and assessment of these participants necessarily involves considerable efforts, but it can be done (Oltmanns & Gleason 2010). Substantial resources need to be committed to longitudinal studies that will extend into later life. We hope that this review will help to inspire another generation of studies addressing these important issues and expanding our knowledge of these important clinical problems as they are manifest over the entire lifespan.

Glossary

DSM	*Diagnostic and Statistical Manual of Mental Disorders*
BPD	borderline personality disorder
IRT	Item Response Theory

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