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Psychological Testing of Older People

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With the expected rise in the number of older persons in general and the number of older persons seeking psychological services, psychological testing of older people quite likely will increase as well. Geropsychology is a rapidly growing specialty area in psychological practice and research, and as a consequence, several specialized testing instruments for older people have been created. Despite these advances, many popular instruments that were initially developed for use with young and middle-aged adults have not been adequately normed or evaluated with older adults, although there also is a strong beginning in this area.

In general, the purpose of testing, or clinical assessment, is to find out what types of problems the person is experiencing and what may have caused the problem, to assist in clarification of personality features, to identify and diagnose mental disorders, to develop initial case conceptualization and intervention plans, and to evaluate effects of treatment. However, traditional testing strategies require some modification for older persons, given their often complex problems, unique socialization and life circumstances, and frequent comorbid health problems and physical limitations. The purpose of this chapter is to discuss the major issues concerning testing of older adults and to describe measurement tools and testing strategies to assist clinicians in their assessment of older adults.

Psychometric Considerations Regarding Psychological Tests

The primary diagnostic guide is the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (*DSM–IV*; American Psychiatric Association, 1994), which has specified criteria for several hundred mental disorders and encourages a full multiaxial diagnosis, including information on clinical disorders, personality disorders, medical conditions, psychosocial and environmental stressors, and a global assessment of functioning. Although the *DSM–IV* has separate sections for childhood and adult disorders, there is no specific section on or criteria for mental disorders in later life, although the course over the life span for some disorders is described. Generally, though, limited information on age-related manifestations of disorders is provided in the *DSM–IV*. Indeed,

several researchers have suggested that some criteria for some mental disorders are inadequate when applied to older people, particularly for personality disorders (Falk & Segal, in press; Rosowsky & Gurian, 1991; Sadavoy, 1996; Segal & Coolidge, in press; Segal, Hersen, Van Hasselt, Silberman, & Roth, 1996) and substance abuse (King, Van Hasselt, Segal, & Hersen, 1994; Segal, Van Hasselt, Hersen, & King, 1996). Cultural, social, physical, and cognitive factors may affect classic symptom presentation for many psychiatric disorders in older people.

The output of the testing strategy we recommend is a thorough testing report concluding with a full multiaxial diagnosis according to *DSM–IV* convention. Although specific technical information about how to write psychological reports is beyond the scope of this chapter, several resources are available for the interested reader (e.g., Segal, 1998; Zuckerman, 1995). The primary psychometric issues regarding psychological testing of older adults concern the related topics of reliability, validity, and norms; and these are discussed next.

Reliability

Reliability of test scores refers to consistency or stability of measurement. A reliable test yields consistent scores when the person takes the test again after an interval. The estimates of reliability most relevant to psychological tests are internal consistency and test–retest reliability. *Internal consistency* is a measure of the extent to which items in a test are intercorrelated with each other. *Test–retest reliability* refers to the extent to which test scores are consistent from one administration to the next. Reliability is the first requirement for good measurement; thus, tests that are used with older people should show ample evidence of reliability.

Validity

Validity refers to the extent to which a test measures what it is intended to measure and the extent to which the test can be used to make accurate predictions. Reliability and validity are closely intertwined, as reliability is a necessary, but not sufficient, condition for validity. An unreliable test cannot possibly be valid, although it is possible for a test to have good reliability but poor validity if the test does not measure anything meaningful. The primary types of validity of tests are *content, construct, predictive,* and *concurrent*. Again, check to make sure tests you are using have been well validated in an older sample that is similar to the sample from which your client comes. Be cautious in interpreting tests without proven validity in older people.

Norms

Scores on most psychological tests rarely provide absolute measures of the construct being assessed (e.g., intelligence, depression, or paranoia). Rather, tests frequently indicate the relative performance of the respondent when compared

with others. Thus, most popular psychological tests are standardized, which means that the same test has been given to many different people so that statistical *norms* can be established for the test. Norms provide standards for interpreting test scores, so that one's responses can be compared with a reference group. Without standardization and norms, it is difficult to determine if an older adult's score is typical, above average, or below average compared with a peer's.

Tests developed specifically for older people (described in the next section) have excellent norms. Likewise, standard intelligence tests have superb age norms. Other tests that were designed for young and middle-aged persons did not initially furnish norms for older adults, but researchers have since provided them. For example, normative data for the Wolpe–Lazarus Assertiveness Scale have been described in community-dwelling (Kogan, Hersen, Kabacoff, & Van Hasselt, 1995) and visually impaired (Hersen, Kabacoff, Ryan, et al., 1995) older people. Likewise the Brief Symptom Inventory has been studied in a large, older sample (Hale, Cochran, & Hedgepeth, 1984). Unfortunately, research has lagged behind on other tests with missing or inadequate norms for older people. Sometimes norms for an age group can change over time, as age groups are composed of different people with different life experiences. Watch out for outdated or irrelevant norms. Clinicians and researchers are encouraged to carefully review the technical manual for tests they use to determine if evidence for reliability and validity and relevant norms for older people are available. If not, be cautious in interpreting scores and work to develop psychometric data for the test.

Age-Related Physical Changes and Medication Issues

Evidence suggests that the majority of older people with psychological problems do not seek or receive adequate mental health services. Lazarus, Sadavoy, and Langsley (1991) aptly described the many barriers to psychological assessment and treatment facing many older people in the current cohort: their belief that some illnesses like depression and anxiety are expected concomitants of old age, their attribution of psychiatric symptoms to physical rather than psychiatric causes, emphasis on medical treatment, stigmatization and shame associated with psychiatric care, and negative family and physician attitudes about geriatric mental health. Unfamiliarity with current mental health treatment and a desire to remain independent also preclude intervention in some cases. Last, practical deterrents such as cost, inadequate insurance, transportation, and physical disabilities can prevent timely mental health evaluation (Lazarus et al., 1991).

Once older adults overcome these diverse barriers and present for evaluation, there are other problems that affect assessment, notably sensory and physical declines and medication effects. Next, we discuss these physical and medical issues that can make traditional assessment more difficult and can affect test performance in older adults.

Vision

Vision problems plague many older adults. In fact, each one of us will experience some form of visual impairment if we live long enough (Cavanaugh, 1997). Over time, visual acuity typically declines so that over 95% of persons over age 65 need glasses at some time and more light to see well. Severe vision problems are known to have negative psychological consequences because they are related to decreased self-esteem, mobility and autonomy; poorer social functioning; and depression in some older people (Hersen, Kabacoff, Van Hasselt, et al., 1995; Hersen, Van Hasselt, & Segal, 1995).

Hearing

The decline in hearing is a well-known age-related change, and serious hearing loss is widespread in older people. After about age 50, almost all adults lose some auditory acuity. Rate of serious impairment is higher for hearing than for vision, in that nearly 50% of normal older people have a significant impairment (Cavanaugh, 1997). Like vision loss, hearing impairment can have adverse psychological effects, such as impaired social functioning, isolation, loss of independence, paranoia, and depression.

Stamina and Information Processing

With increasing age, stamina or endurance typically declines due to changes in heart functioning, circulation, lungs, and muscle tissue. Similarly, rate of information processing and reaction time also slow with age. Most older adults are able to compensate for these changes and can still function effectively on the job or in play provided ample time is available to complete the task. As such, speeded psychological tests may not give a fair estimate of the older person's eventual functioning if age-graded norms are not available. When testing a skill or ability in which speed or time is a relevant performance criteria, performance within the time limit and eventual performance without the time limit should be noted. Marathon testing sessions may be tolerated by younger people, but older adults may fatigue and perform more poorly than they are capable, given appropriate rest and pacing of testing.

Medical Illnesses and Medication Use

Due to age-related increases in the frequency of chronic medical conditions (e.g., arthritis, poor circulation, or osteoporosis), older adults consume a disproportionate amount of prescribed and over-the-counter (OTC) medications. The most frequently prescribed medications for older adults include sedatives, minor tranquilizers, and cardiovascular agents, whereas widely used OTC medications are analgesics, antacids, and laxatives (Schilit & Gomberg, 1991). With increased drug use, older people are at increased risk for adverse drug effects because of harmful drug interactions and because they metabolize drugs at a slower rate than when they were younger.

We recommend that clinicians get detailed information about current medical conditions and medications. Information about medical illnesses is important because some conditions (e.g., thyroid dysfunction, mitral valve prolapse, epilepsy, multiple sclerosis, hypoglycemia, and brain tumors) can mimic signs of psychiatric conditions (American Psychiatric Association, 1994). Likewise, certain medications are known to cause psychological symptoms, for example, some antihypertensive drugs and steroids can induce depressive symptoms; some stimulants and steroids can cause maniclike symptoms; and some analgesics, bronchodilators, and anticonvulsants can cause anxiety symptoms (American Psychiatric Association, 1994). Moreover, diverse drug interactions can cause memory problems that mimic a dementing illness, such as Alzheimer's disease. In any case, careful attention paid to drugs and medical conditions can assist the clinician in understanding the client's current problems.

Clinical Conditions and Assessment Tools

Depression

Depression is a common and often serious psychological disorder in older people. In fact, current estimates suggest that between 1% and 4% of community-dwelling older adults suffer from diagnosable major depression (Blazer, Hughes, & George, 1987), whereas an additional 9%–30% suffer from subclinical but still significant levels of depression (Blazer, 1993). Depression is frequently a presenting problem for older adults seeking psychiatric services, and because treatment of it for them is largely efficacious (Spar & LaRue, 1990), accurate detection is imperative.

Several popular self-report depression inventories are readily available for clinical use. The Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is widely used in clinical research and practice as a depression-screening device. The BDI is a 21-item self-report questionnaire. Each item describes a specific manifestation of depression; the respondent reads four evaluative statements and indicates his or her current severity level of depression. Thirteen items assess psychological symptoms of depression, whereas eight items assess somatic symptoms. Potential scores range from 0 to 63, with higher scores corresponding to higher levels of depression. The main criticisms of the BDI are that it has many somatic items, which may not be reflective of depression in some older people, and that the response format is not as simple as other self-reports, described next.

The Center for Epidemiologic Studies Depression Scale (CES–D; Radloff, 1977) is another option for the assessment of depression in older people. The CES–D was developed primarily as a research instrument and has been widely used in community studies with adolescents and adults, although fewer data are available with older adults (Radloff & Teri, 1986). It has 20 self-report items that tap depressive symptoms experienced over the past week. An advantage of the CES–D is that it is not heavily weighted with somatic items, which can show falsely elevated levels of depression in physically ill (but nondepressed)

older adults. Murrell, Himmelfarb, and Wright (1983) reported an impressive hit rate (percentage of respondents correctly classified) of 82% in a large, older sample within a community. More recently, the CES–D was shown to have excellent internal consistency (α = .82), good test–retest reliability (.52), and strong evidence for validity when compared with clinical diagnosis (sensitivity = 76%, specificity = 77%, hit rate = 77%) in a sample of 1,005 community-residing older adults (Lewinsohn, Seeley, Roberts, & Allen, 1997).

By far, the most popular and appropriate self-report inventory for depression in older people is the Geriatric Depression Scale (GDS; Yesavage et al., 1983). This easily administered scale was developed as a basic screening measure for depression in older adults, and it has been widely used in studies of depression in later adulthood. The GDS consists of 30 items, presented in a simple yes/no format. Items focus on cognitive and behavioral aspects of depression, and somatic items are excluded. In 20 of the 30 items, the answer yes indicates depression; in the remaining 10, the answer no indicates depression. The person's total GDS score consists of the sum of all items. A score of 0–10 indicates no depression, 11–20 indicates mild depression, and 21–30 indicates moderate-to-severe depression. Strengths of the GDS include the simple yes/no response format and the absence of somatically oriented items. The original scale is in the public domain, due to it being partly the result of federal support. The full GDS, scoring key, and primary references are available on the Internet website for the GDS at http://www-leland.stanford.edu/~yesavage/GDS.html.

The GDS has exceptional psychometric properties with older adults. Internal consistency and split-half reliability coefficients are both quite high at .94 (Yesavage et al., 1983). Test–retest reliability coefficients are also satisfactory over a span of 1 week (.85) and after a 5-min delay (.86; Brink et al., 1985). Regarding validity, Yesavage et al. found that GDS scores of nondepressed, mildly depressed, and severely depressed older participants were significantly different. Evidence for concurrent validity for the GDS has been provided by Yesavage et al., who correlated GDS scores with the Zung Self-Rating Depression Scale (r = .83) and Hamilton Rating Scale for Depression (r = .84). The GDS has shown high concurrent validity with the BDI in two studies (r = .73; Hyer & Blount, 1984; r = .91; Olin, Schneider, Eaton, Zemansky, & Pollock, 1992) and with the Hamilton Depression Rating Scale (r = .83; Hyer & Blount, 1984). Sheikh et al. (1991) reported that the GDS has good factorial validity. In a recent validity study with 59 older psychiatric outpatients, maximum discrimination of a current major depressive episode (based on structured interview) resulted with cutoff scores of 22 for the BDI and 16 for the GDS (Kogan, Kabacoff, Hersen, & Van Hasselt, 1994). Specifically, the validity scores for the BDI were as follows: sensitivity = 64%, specificity = 73%, positive predictive power = 75%, negative predictive power = 61%, and hit rate = 68%. Validity scores for the GDS were as follows: sensitivity = 79%, specificity = 69%, positive predictive power = 77%, negative predictive power = 72%, and hit rate = 75%. Overall, BDI values were typically slightly lower than GDS values but still in the moderate to excellent range. Combined BDI and GDS scores did not result in improved prediction of a current major depressive episode as compared with the GDS alone. This study suggests that both measures are valid quick screen-

ing instruments in discriminating major depression in older outpatients, although the GDS has slightly better validity scores.

Despite popularity of the self-report devices described previously, a definitive diagnosis of depression (or any psychological disorder for that matter) should never be made on the basis of self-report inventories alone, which can be subject to response biases (e.g., social desirability) and generally can be easily faked. Like others (e.g., Lewinsohn et al., 1997), we recommend a two-step process whereby elevated self-reported scores on the screening instrument are followed up by a clinical or structured interview to confirm presence or absence of the disorder. Several available multidisorder structured interviews are discussed later.

Suicide

A common referral question for a psychological assessment battery on an older person has to do with an evaluation of the person's potential for self-harm. Indeed, a full evaluation of suicidal risk should be a part of any standard testing battery. The reason for this is twofold: (a) to protect the client during a crisis point when the person may be irrational, psychotic, or severely depressed, and may want to escape from emotional turmoil by ending her or his life and (b) to protect the clinician, who can be held legally liable if a thorough suicidal assessment was not performed or if the clinician failed to take proper steps to prevent the client from self-harm and the client committed suicide.

Suicide is a significant clinical problem for younger and older clients alike. However, suicide rates generally increase with age, with the highest rates among persons over age 65 (Moscicki, 1995), although there is variability across countries and between male and female populations. In addition to age, other risk factors to consider include male gender, depression, hopelessness, substance abuse, previous suicide attempt, widowhood, and physical illness. General queries about suicidal ideation should be followed up with probes about specific plans and intent. Formal assessment measures include the Scale for Suicidal Ideation (Beck, Kovacs, & Weissman, 1979), which is a 19-item scale that is completed by a clinician after a semistructured interview, and the Geriatric Hopelessness Scale (GHS; Fry, 1986). The GHS is a 30-item yes/no self-report scale designed to assess pessimism and cognitions of hopelessness in older adults, which are theoretically related to suicidal behavior in Beck's model of depression. Items refer to the affective, motivational, and cognitive components of hopelessness in the respondent. According to Fry (1984), internal consistency of the scale is .69, and split-half reliability is .73. The GHS has been shown to be a valid measure based on high correlations with numerous other measures of theoretically related constructs (Fry, 1984). If the assessment reveals that the client is currently at risk for self-harm, the clinician must act to protect the client. If the client is in immediate and imminent danger of suicide and less restrictive treatments are not sufficient, the clinician is required to hospitalize the client.

Anxiety

Epidemiological studies suggest that anxiety symptoms are highly prevalent in older people (see Hersen, Van Hasselt, & Goreczny, 1993). Until recently, however, most assessment measures, normed and validated with younger populations, were indiscriminately applied to older people without having been evaluated psychometrically with this group, in terms of norms, internal consistency, reliability, factorial structure, and validity. Unlike the GDS for depression, there is no parallel specific measure of anxiety in older people. The assessment of anxiety in this group is inherently difficult because many anxiety symptoms by definition are physical symptoms (e.g., nausea, headaches, trembling, and heart pounding). As such, underlying medical conditions and medications, rather than psychological factors, could account for some symptoms.

Besides the Minnesota Multiphasic Personality Inventory (MMPI) and structured interviews (described later), two of the most commonly used self-report measures of anxiety are the Beck Anxiety Inventory (BAI; Beck & Steer, 1990) and the State–Trait Anxiety Inventory (STAI; Spielberger, 1983). The STAI is a theoretically derived 40-item Likert scale, which assesses separate dimensions of state anxiety (Items 1–20) and trait anxiety (Items 21–40). Each item is rated on a 4-point intensity scale. The BAI is a 21-item self-rating scale, which measures severity of anxiety and discriminates anxiety from depression. Each symptom is rated on a 4-point scale ranging from 0 (*not at all*) to 3 (*severely, I could barely stand it*), and the total scores can range from 0 to 63, with higher scores indicating higher levels of anxiety. Thirteen items assess physiological symptoms, five describe cognitive aspects, and three represent both somatic and cognitive symptoms. Both measures are well validated in diverse younger populations.

Recently, psychometric properties and clinical utility of these two measures were examined in a large sample of older outpatients ($N = 217$) with diverse psychiatric disorders (Kabacoff, Segal, Hersen, & Van Hasselt, 1997). Results indicated that both scales demonstrated high internal reliabilities. The BAI demonstrated good factorial validity (with Somatic Anxiety and Subjective Anxiety subscales emerging), but the STAI did not show factorial validity, because separate State and Trait factors were not found. Both the BAI and the Trait subscale of the STAI discriminated anxiety-disordered clients from those without an anxiety disorder, but the State subscale did not discriminate between groups. When used to predict presence of an anxiety disorder, no single cutoff score for either the BAI or STAI was optimal due to relative trade-offs regarding sensitivity and specificity. Moreover, combined BAI and STAI scores did not result in improved prediction of a current anxiety disorder, as compared with the BAI alone. These results suggest that the BAI is somewhat useful as a quick screening instrument in detecting an anxiety disorder in older psychiatric outpatients, although results were not as strong as previous findings regarding predictive accuracy of the GDS in detecting depression in older people. In conclusion, although clinical and research interest in anxiety disorders in older people has lagged somewhat behind that in mood and cognitive disorders, increased attention of late will quite likely increase our ability to better measure anxiety in this group.

Substance Abuse and Dependence

Substance abuse can be a problem with older people, as with any other age group. Estimates of problem drinking or alcoholism in older adults range between 2% and 10% (King et al., 1994). Use of illicit drugs (e.g., cocaine, hallucinogens, and marijuana) among older people is relatively uncommon, with the exception that some heroin users survive into old age (Schilit & Gomberg, 1991). However, illicit drug use is expected to increase substantially as younger cohorts of heavy drug users age. Older people are also at great risk for unintentionally abusing OTC and prescription medications owing to their high use rates. Moreover, some researchers suggest that substance abuse sometimes is underdiagnosed and underreported in older people (Dupree, 1989; King et al., 1994). Many so-called "hidden" alcoholics remain undetected, partially because of inadequate case-finding strategies (Dupree, 1989), limited relevance of some *DSM* criteria for substance abuse, and inadequate screening devices (King et al., 1994). Unfortunately, lack of accurate diagnosis is a major barrier to adequate intervention (for review of treatment issues, see Segal, Van Hasselt, et al., 1996).

Recently, however, there has been an attempt to adapt existing instruments, such as the CAGE, for use in geriatric populations and to develop and validate an elder-specific assessment measure. The CAGE (Mayfield, McLeod, & Hall, 1974) is a short, four-item, self-report questionnaire designed to detect alcohol abuse. Limited data suggest that the CAGE is useful as a gross screening device for alcohol abuse in older people, although large definitive studies are lacking. To address the need for quality assessment tools for use with the older people, the Michigan Alcoholism Screening Test (MAST) has recently been modified into an elder-specific measure, the MAST—Geriatric Version (MAST–G; Blow et al., 1992). Notably, the MAST–G is becoming widely and successfully used in clinical practice. It contains 24 simple yes/no items unique to older problem drinkers. In all cases, yes is the pathological response, and a cutoff of 5 positive responses indicates an alcohol problem (Blow et al., 1992). The MAST–G has excellent psychometric properties. Using the *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed. rev.; *DSM–III–R*; American Psychiatric Association, 1987) diagnosis of alcohol dependence as the validation criteria, the MAST–G was found to have a sensitivity of 93.9% and specificity of 78.1%. Factor analysis revealed five dimensions: Loss and Loneliness, Relaxation, Dependence, Loss of Control With Drinking, and Rule Making. In any case, a thorough evaluation of substance abuse should be a part of any standard battery, because the disorder not only can be severe and debilitating in its own right but also can make other comorbid conditions, such as anxiety and depression, worse. In addition, substance abuse is linked to increased rates of suicide.

Cognitive Impairment

Assessment of cognitive functioning is an important part of any thorough geriatric assessment, because cognitive impairment is a major problem facing

older people. Accurate assessment of cognition is important because other test results may not be valid if the sufferer's judgment is significantly impaired. Also, early detection of cognitive disorders is crucial because many symptoms are reversible, especially for delirium.

The primary *DSM–IV* cognitive disorders are dementia and delirium. *Delirium* refers to a clouding of consciousness with accompanying impaired concentration, disorientation, and perceptual disturbances that develop over a short period of time (hours to days). Because delirium is often obvious and acute, there are no specific tests for it. However, if delirium is suspected in older people, they should be quickly referred for medical treatment, because delirium is typically reversible but can be deadly if the underlying cause (e.g., infections, drug intoxication or withdrawal states, or malnutrition) is not corrected.

Dementia is a syndrome of multiple cognitive deficits, including impairment in memory but excluding impairment in consciousness. Dementia is often described as a gradual deterioration of intellectual abilities (usually over several years) to the point that the person is unable to identify close family members, perform basic self-care skills, or even speak in the end stage. Community studies suggest that 3%–8% of persons over age 65 experience severe dementia whereas 10%–18% have mild cognitive deficits (Cummings & Benson, 1992; Spar & LaRue, 1990). Prevalence rates clearly increase with age, so that 20%–30% of persons over age 85 are diagnosable with dementia (American Psychiatric Association, 1994; Skoog, Nilsson, Palmertz, Andreasson, & Svanborg, 1993). Note, however, that prevalence rates vary from country to country, also depending on how the disorder is technically defined. The most common type in American and most European older people is dementia of the Alzheimer's type, which accounts for 50%–70% of dementias.

We suggest that at a minimum, clinicians screen for cognitive impairment in all older clients during the testing session. Even a brief mental status examination (tapping such broad areas as mood, hallucinations, delusions, judgment, insight, and gross cognitive functioning) will greatly facilitate diagnosis and treatment planning and can serve as a baseline measurement. If cognitive impairment is evident, always get a full history, including onset and course of cognitive decline. The family may be the best source of this information if the client is in fact cognitively impaired.

There are several brief, standardized, easily administered screening exams for mental status and cognitive impairment that can assist clinicians in this endeavor. One of the most popular tools is the Folstein Mini Mental State Exam (Folstein, Folstein, & McHugh, 1975). This brief cognitive screening device for dementia takes 5–10 min to administer and is well validated. Items tap orientation, concentration, memory, language, and gross motor skills. Scores range from 0 to 30, with scores under 25 indicating a need for further testing and evaluation and scores below 20 indicating definite cognitive impairment. Other popular screening tools include the Short Portable Mental Status Questionnaire (Pfeiffer, 1975) and the Blessed Dementia Index (Blessed, Tomlinson, & Roth, 1968). A final helpful instrument is the Dementia Rating Scale (Mattis, 1988), which is a psychometrically sound, interviewer-administered neuropsychological instrument designed specifically for dementia evaluation in older

people. The Dementia Rating Scale consists of 36 tasks and takes about 30 min to complete. Note that one cannot diagnose dementia with any brief screening device. Laboratory tests (e.g., complete blood count [CBC], electrolyte panel, or urinalysis), high-tech brain-imaging procedures (e.g., computerized tomography, or magnetic resonance imaging), and neuropsychological testing are used to follow up positive cases from the screening. Finally, a thorough evaluation is needed to rule out depression because some depressed older people complain about memory and concentration deficits and can look demented even though no dementing illness is actually present.

Personality Disorders

It is vitally important when testing older adults to pay attention to possible underlying personality disorders. Indeed, personality dysfunction can cloud the diagnostic picture and negatively impact treatment efficacy of *DSM–IV* Axis I disorders in older people (Falk & Segal, in press; Segal et al., in press; Segal, Hersen, et al., 1996). Some researchers suggest that personality disorders are sometimes unrecognized in older people due to inadequate criteria for some disorders and the florid, more easily recognizable presentation of Axis I conditions (Rosowsky & Gurian, 1991; Sadavoy, 1996; Segal & Coolidge, in press; Segal et al., 1996). To aid the clinician, many self-report and structured interviews have been designed to evaluate a wide range of *DSM–IV* personality disorders. Popular and psychometrically sound self-report devices include the Millon Clinical Multiaxial Inventory–III (Millon, 1994), the Personality Diagnostic Questionnaire–4 (Hyler, 1994), and the Coolidge Axis II Inventory (CATI; Coolidge & Merwin, 1992). All have been applied to older people at least minimally and will help clinicians detect personality pathology. Positive cases should be further examined with structured interviews (discussed below) for definitive diagnosis because self-report devices tend to overpathologize.

Although the CATI (Coolidge & Merwin, 1992) stands as one of the newer personality inventories, it has been normed and used extensively in older populations. The CATI contains 225 items answered on a 4-point Likert scale ranging from *strongly disagree* to *strongly agree*. The CATI was originally designed to measure Axis II personality disorders, as described in the *DSM–III–R*, and was revised for the *DSM–IV*. The CATI also was specifically designed to assess neuropsychological symptoms through three subscales assessing memory and concentration difficulties, somatic symptoms related to brain dysfunction, and language and comprehension problems. It also has Axis I measures of depression, anxiety, schizophrenia, and psychotic thinking. In addition, the CATI possesses a validated significant-other evaluation form (Coolidge, Burns, & Mooney, 1995) as well as large-print forms for older or sight-impaired individuals. Because 16% of the original normative sample ($N = 1,223$) ranged in age from 60 to 92 years ($n = 200$), separate studies comparing the nonpsychiatric elderly with the original normative sample were not necessarily required.

In 1992, Coolidge, Burns, Nathan, and Mull investigated whether personality disorders diminish or become less prominent in older as compared with younger people. In a preliminary study of only 36 healthy, older, community-

dwelling people (mean age 69, range = 61 to 78 years) compared with 573 younger people (mean age = 24, range = 16 to 58 years), they found that the older group was significantly more elevated than the younger group on the Obsessive–Compulsive and Schizoid personality disorder scales and significantly less elevated on the Antisocial, Borderline, Histrionic, Narcissistic, Paranoid, Passive–Aggressive, Sadistic, and Self-Defeating scales. Mean elevations on the Obsessive–Compulsive and Schizoid scales for the older group were both greater than 2 standard deviations above the normative group means. Specific-item analyses on the Obsessive–Compulsive scale revealed that that the older group scored significantly higher than the younger group on the items relating to restricted affectivity and insensitivity to criticism. Neural substrate changes were proposed as a causal mechanism.

Coolidge, Janitell, and Griego (1994) examined the comorbidity of depression, anxiety, and personality disorders in a sample of 83 healthy, community-dwelling older people (mean age = 70 years). They found a surprisingly high rate of personality disorders (18% of the sample) and significant set correlations between depression, anxiety, and personality disorders. The Schizoid personality disorder scale was the most frequently elevated in the sample. It also appeared that high states of anxiety were better predictors of personality disorders than was depression. The overall results supported the hypothesis that personality disorders appear to be more common when anxiety and depression are present in older people. Because mental health professionals are more likely to evaluate older persons for depression and anxiety than for personality disorders and because personality disorders appear to be comorbid with anxiety and depression, it would behoove clinicians to be aware of these findings when treating older people with anxiety and depression, because therapeutic intervention and treatment outcome might be affected.

Coolidge et al., (in press) also examined the CATI profiles in two psychiatric samples, one of chronically psychiatric older people ($n = 30$; mean age = 63, range = 56 to 83 years; a majority were diagnosed with schizophrenia) and the other of younger schizophrenic inpatients ($n = 30$; mean age = 39, range = 22 to 54 years). The prevalence rate of personality disorders was high for both groups (about 62% of the entire sample) and slightly higher in the younger group, but there was no significant difference between the two groups on the prevalence rate of the Obsessive–Compulsive personality disorder. There were also no significant differences between the two groups on the percentage of each sample with a clinically elevated Depression or Anxiety scale on the CATI.

Structured Interviews for Clinical and Personality Disorders

Many structured interviews are available to help clinicians and researchers evaluate most major *DSM–IV* Axis I (clinical) syndromes and all standard Axis II (personality) disorders. Structured interviews have many beneficial features, including comprehensive, systematic, and objective coverage of disorders of interest and improved reliability and validity, compared with unstructured interviews (for full description of major issues and instruments, see Segal, 1997; Segal & Falk, 1998). Likewise, self-report screening tools described earlier (e.g.,

for anxiety and depression) should routinely be followed by a more thorough structured interview to clarify the diagnostic picture. Well-validated interviews for Axis I disorders include the Structured Clinical Interview for *DSM–IV* Axis I (SCID–I; First, Spitzer, Gibbon, & Williams, 1995), the Diagnostic Interview Schedule—IV, and the Schedule for Affective Disorders and Schizophrenia (Endicott & Spitzer, 1978). Popular and psychometrically sound interviews for personality disorders include the Structured Clinical Interview for DSM–IV Axis II Personality Disorders (SCID–II; First, Gibbon, Spitzer, Williams, & Benjamin, 1997), Structured Interview for *DSM–IV* Personality (Pfohl, Blum, & Zimmerman, 1995), and the International Personality Disorder Examination (World Health Organization, 1995). Although all of these instruments have been applied with various geriatric populations, published reliability and validity data are limited, especially for the Axis II interviews (Segal, Hersen, et al., 1996).

In an earlier review (Segal, Hersen, & Van Hasselt, 1994), we called for increased evaluations of the reliability of the structured interviews in minority populations, including older adults. Our research group has conducted two such reliability studies of the SCID–I with older people. In the first study (Segal, Hersen, Van Hasselt, Kabacoff, & Roth, 1993), 33 older psychiatric inpatients and outpatients were evaluated (mean age = 67.3 years). SCID–I interviews were administered by master's level clinicians and were audiotaped for retrospective review by an independent rater. Reliability estimates (kappa) were calculated for current major depression (47% base rate, κ = .70) and the broad diagnostic categories of anxiety disorder (15% base rate, κ = .77) and somatoform disorder (12% base rate, κ = 1.0). The second investigation (Segal, Kabacoff, Hersen, Van Hasselt, & Ryan, 1995) targeted older outpatients exclusively (N = 40; mean age = 67.1 years) and evaluated a larger number of diagnoses. Diagnostic concordance was determined for the general groupings of mood disorder (60% base rate), anxiety disorder (25% base rate), somatoform disorder (9% base rate), and substance use disorder (9% base rate). Agreement for the broad diagnostic group of somatoform disorder (κ = .84) was almost perfect, whereas concordance was slightly lower, but still substantial, for mood disorder (κ = .79) and anxiety disorder (κ = .73). Data for substance use disorder (κ = .23) reflected poor agreement. For specific illnesses, kappas were high for major depression (58% base rate, κ = .90) and panic disorder (15% base rate, κ = .80), and moderate for dysthymia (9% base rate, κ = .53). Taken together, these two studies suggest that reliability of the SCID–I administered to older adults appears very promising. In conclusion, it has been our experience that older people respond particularly well to structured interviews because they like the comprehensive nature of the assessment and extended time with the interviewer. However, adequate rapport should be established, and the interview procedure carefully explained before beginning the interview.

Personality Assessment

The accurate personality assessment of older people presents all of the issues associated with the assessment of younger persons, such as the reliability and

validity of the assessment techniques, but also adds some complex and difficult problems associated with general developmental personality theory. Among these problems are the important theoretical issue of whether personality changes across the life span and the related issue of how psychological tests standardized on younger persons may be applied to older populations.

Minnesota Multiphasic Personality Inventory–II

Probably no single personality measurement has been used more with older people than the MMPI, despite the fact that separate norms for them are not readily available. The MMPI was developed by Hathaway and McKinley at the University of Minnesota in the early 1940s (Groth-Marnat, 1990). The current version, the MMPI–II (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989) contains 567 items, but the traditional 10 clinical scales and 3 Validity Scales can be obtained with administration of the first 370 items. One advantage of the MMPI–II over its predecessor has been the addition of Content scales, which were designed to assess additional personality dimensions such as anxiety, depression, low self-esteem, and health concerns.

It has been frequently noted, however, that the length of time of administration (from 1 to over 2 hr) for either the MMPI or the MMPI–II may be particularly difficult for older people especially for older clinical patients. Short forms of the MMPI have been used as a result (see Newmark, Newmark, & Faschingbauer, 1974), but there are few studies assessing short forms of the MMPI–II with geriatric populations.

Age differences on the standard MMPI–II have been addressed in few investigations. In a cross-sectional study, Butcher et al. (1991) contrasted 1,459 men from a normative aging study (mean age = 61 years) versus 1,138 men from the MMPI restandardization study (mean age = 42 years). They found that the older sample scored significantly higher on the Depression scale of the MMPI and significantly lower on the Psychopathic Deviance and Mania scales. Although the researchers used nearly exclusively White, middle-class men in a cross-sectional study, they argued that the results suggested that older men did not require separate norms on the MMPI–II.

The latter finding of higher Depression scale scores in older people on the MMPI and MMPI–II has been frequently supported, although it has been argued that geographic, societal, and population factors may actually account for differences between younger and older respondents on the test more so than age-related differences (Koeppl, Bolla-Wilson, & Bleecker, 1989). It has also been suggested (e.g., Harmatz & Shader, 1975) that these higher depression scores are more likely an artifact of the somatic and physical stamina bias of the items on the MMPI Depression scale. Furthermore, the MMPI Depression scale contained the item "I believe in the second coming of Christ." Although a "false" response may have been a sign of depression in the original sample, consisting largely of Christian Minnesota farmers, it does not appear to be a valid indicator of depression for people of numerous other religious persuasions. When only the items directly relevant to mood are isolated as a separate depression scale on the MMPI, then the average older person does not appear

more depressed than younger people. However, the average clinician may not have the time nor expertise to indulge in such lengthy perturbations so as to tailor the MMPI Depression scale for older people.

With respect to gender differences in older people on the MMPI–II, Strassberg, Clutton, and Korboot (1991) tested 110 nonpsychiatric, Australian residents (mean age = 71, age range = 60 to 96 years, N = 60 women and 50 men). There were no statistically significant gender differences, although there were some trends for men to be higher than women on the Depression scale (male mean T score = 59, female mean T score = 54) and for both groups to be lower (mean T score < 45) on the Psychopathic Deviance, Paranoia, and Mania scales. Both groups' peak scores appeared on the Hypochondriasis scales, perhaps reflecting greater concerns of older people with regard to their health.

Overall, it may be surmised that despite the MMPI–II's frequent use, its validity with older populations—in particular, psychiatric older people—has not yet been well established. Preliminarily, it does appear that higher scale scores for nonpsychiatric older people on the Depression and Hypochondriasis scales may be related to the high number of items on the scales testing common physical symptoms rather than depressive mood or fears of dying from a single fatal disease.

Rorschach and Thematic Apperception Test

The Rorschach is a time-honored projective personality test originally designed by Hermann Rorschach and published in 1921 (Groth-Marnat, 1990). It consisted of 10 bilaterally symmetrical inkblots chosen for their prior, specific abilities to elicit certain classes of responses from normal people (e.g., mother responses, authority figure responses, flying objects, and sexual content). Rorschach died shortly after his eponymous test's publication, but at least five different major scoring systems were popularized and in widespread use until the late 1960s. In 1969, Exner began devising his revolutionary scoring system, which now enjoys virtually unrivaled popularity. Exner's scoring system uses only empirically derived interpretations as well as standardized administration and scoring instructions. Exner's adherence to strict empirical validation has led to a veritable renaissance in the teaching and use of the original Rorschach test.

A classic text regarding interpretations of the Rorschach test with respect to older people was published in 1973 by Ames, Metraux, Rodell, and Walker and was titled *Rorschach Responses in Old Age*. However, Ames et al.'s, findings were not pleasant: Aging appeared to produce responses that were more restricted, empty, labile, and less in contact with reality than those of younger people. However, subsequent empirical studies did not fully support their contentions. The major criticisms centered on the nature of the Ames et al. sample (a greater preponderance of institutionalized patients and a lack of age stratification; e.g., Reichlin, 1984). More recent research, by Gross, Newton, and Brooks (1990), claimed that age and even intellectual level have minimal impact on Rorschach responses. Peterson (1991) argued that his experience, particularly with healthy older people, revealed Rorschach responses far richer

and fecund than Ames and his colleagues had suggested. As Grotjahn (1951) noted, older people cannot typically look to the distant future for meaning in their lives. They must look into their past for understanding and satisfaction. Therefore, Peterson (1991) proposed tailoring Rorschach administration to the older adult by asking him or her "to reminisce in response to the earlier pre-cept" (p. 534). Although Peterson (1991) acknowledged that this might spuri-ously increase the Rorschach responses, he felt that the original test biases of Ames et al. just as equally led to an artificial coarctation of the responses of older people, resulting in their claims of a barrenness of the older adult's inner world.

The Thematic Apperception Test (TAT; Murray, 1943) is another widely used projective test. The TAT consists of 31 black-and-white pictures, which pull for certain themes, such as sexuality, achievement, interpersonal relation-ships, and parental relationships. Some cards are well structured and clear, some are somewhat ambiguous, and still others are bizarre. Many of the pic-tures involve depictions of single individuals or dyads, although middle-aged or older adults are clearly depicted in only 5 of the 31 cards. Typically 10–20 cards are selected by the clinician and administered, and the respondent is asked to tell a story explaining what is happening in the picture currently, what led up to the picture, what is going to happen, and what the characters are feeling.

Because respondents typically identify with one character in the picture, the utility with older adults may be somewhat compromised. To address this issue, the Senior Apperception Test, which has many elderly-relevant pictures and themes, has been devised. It is our clinical impression that the standard TAT can be used with older clients but that the specialized version is preferable.

A final projective test that may be useful is the Geriatric Sentence Com-pletion Form (LeBray, 1992), which consists of 30 fragmentary sentence stems, which the older client is asked to complete. This elder-specific version is de-signed to measure attitudes and personal characteristics of persons age 60 and over and taps many age-related themes, such as attitude toward death and growing old. As with the Senior Apperception Test, we recommend that the elder version of incomplete sentences is used rather than the standard adult version.

The NEO Personality Inventory and Five-Factor Model of Personality

Costa and McCrae proposed a five-factor model of both the normal and abnor-mal personality structure (Costa & McCrae, 1996) and promoted their opera-tionalization of the model in the revised NEO Personality Inventory (NEO–PI; Costa & McCrae, 1988; see chapter 3, this volume). Their five-factor model is based on earlier work by Norman (1963). The five factors are as follows: Neu-roticism, Extraversion, Openness to Experience, Agreeableness, and Consci-entiousness. The revised NEO–PI form (can be completed in 30–40 minutes and is answered on a 5-point Likert scale anchored by *strongly disagree* and *strongly agree*. Costa and McCrae claimed that the five-factor model could ex-plain the normal personality as well as abnormal personality dimensions, al-

though these claims appear arguable (see Ben-Porath & Waller, 1992; Coolidge et al., 1994).

Costa and McCrae (1996) argued that one's personality structure changes little after the age of 30, at least according to research with the NEO–PI. Changes do occur between ages 20 to 30, such as a lowering of overall Neuroticism scores and Extraversion coupled with increased levels of Agreeableness and Conscientiousness. However, they argue that with few exceptions, people's personalities remain constant after the age of 30 only until dementing disorders may become prominent. Costa and McCrae and others (e.g., Malatesta & Kalnok, 1984) propose, particularly in regard to depression and overall affect, that "older adults are simply adults who happen to be older" (Costa & McCrae, 1996, p. 378).

In summary, this brief sampling of some common or recent research of psychological assessment of older people reveals a complete gamut of opinions, from the increasing barrenness of the older adult's inner world to the simplicity of older adults as adults who happen to be older. It does appear, and perhaps not surprisingly, that the determination of their psychological state will be strongly determined by measurement device, specific characteristics of the person being tested (e.g., age, gender, ethnicity, cohort, socioeconomic class, and religion), administration techniques and instructions (e.g., large-print form availability and time-limited format), and conscious or unconscious researcher biases. Nevertheless, there seems to be some evidence for some kind of diminishment of responding in older people but the reasons for the diminution are far from clear. There also appears to be some arguments for the constancy of the adult personality; however, their nature and supporting neural substrate mechanisms certainly require further elucidation.

Intelligence (IQ) Assessment

There is no area in psychology richer in controversy than the assessment of intelligence. The difficulty of intellectual assessment is exacerbated by its own abstract nature. It can only be inferred from observable behavior, yet the illusory label, *intelligence*, no doubt refers to a complex group of mental processes.

The modern history of intelligence assessment can be traced to Binet, a French psychologist, and his colleague, Simon, who, beginning in 1904, attempted to distinguish, with a series of questions, between slow and normal learners in the French school system. In 1916, Terman, a Stanford University professor, translated, standardized, and improved on Binet and Simon's test by developing the intelligence quotient (IQ). His formula for obtaining IQ was to divide a child's mental age by chronological age and multiply the result by 100. The new, improved version of Binet and Simon's test became known as the Stanford–Binet Intelligence test and was used widely, almost without rival, until the 1950s (Matarazzo, 1972). Wechsler, an American psychologist, became dissatisfied with the Stanford–Binet test primarily because he found it more suitable for children than adults. Wechsler began developing a broader and what he called "functional" definition of intelligence. He argued that the then current concept of intelligence was too narrowly defined and that the

Stanford–Binet test was not suitable for adults. His work culminated in the Wechsler–Bellevue Scale (1939), and it was revised to form the Wechsler Adult Intelligence Scale (WAIS; Wechsler, 1955). The revised WAIS, known as the WAIS–R (1981), is now currently the most popular intelligence test in the entire world.

The WAIS–R consists of 11 separate subtests, six verbal and five performance. Raw scores for each scale are converted into scaled scores ($M = 10$, $SD = 3$). The scaled scores are added together separately for the verbal and performance subtests. Based on groupings of the participant's age, scaled score sums are converted into a verbal intelligence quotient (VIQ), performance intelligence quotient (PIQ), and a full scale intelligence quotient (FIQ). Furthermore, scaled score equivalents of raw scores by age groups may be obtained through the WAIS–R manual. Although these scaled score equivalents are not to be used in the computation of equivalent IQs, they may be used for overall scale pattern analysis. In this latter regard, Wechsler's test is original and unique in the assessment field by its offering of test scores based on large groups of age-stratified people and also test score equivalents specifically based on age group norms through age 70–74 years. The WAIS–R was also standardized on 1,880 people, age 16 to 75 years, according to nine different age groupings with an equal number of males and females in each age group. Census data were used to apportion the sample into race and geographic regions.

Aging and intelligence have long been a topic of debate (Kirkpatrick, 1903). A classic series of studies by Schaie (e.g., 1958, 1983) and his colleagues has helped to establish what now have become almost unchallenged facts in psychological assessment: (a) Declines in intelligence come much later than previously believed, (b) they vary widely from person to person, (c) the nature of the decline itself varies across abilities, and (d) educational level is negatively correlated with intellectual decline.

Many studies of cognitive aging have been conducted on the Wechsler and other intelligence scales, researchers (e.g., Flynn, 1987; Parker, 1986) have analyzed the peak performance across a number of IQ tests and found that peak performance appears to occur later with every succeeding generation at a rate of about 3 IQ points per decade. In addition, in 1916, the peak global performance age was 16 years; in 1926, it was 20; in 1931, it was 18.5; in 1937, it was 22; in 1953, it was 27; and in 1978, it was 30 years of age. It is thought that increases in years of education account for the largest share of the causal variance. Data from Kaufman, Reynolds, and McLean (1989) suggest that education alone accounts for over 45% of the variance in VIQ, whereas age accounts for only 3%. In PIQ, education accounts for 33% of the variance, whereas age alone accounts for 28%. And in FIQ, education accounts for 46% of the variance, whereas age alone accounts for 13%.

Interestingly, if peak performance in verbal intelligence is determined after controlling for education level, the peak VIQ is obtained for age 55 to 64 years, and even more amazing is that peak VIQ at age 70 to 74 is even greater than at age 20 to 24. The picture for PIQ is not so sanguine. PIQ drops steadily after the age of 20 to 24, although the decline at age 70 to 74 represents about a 25% decrement from peak ability.

Peak performance data support Cattell's (1963) theory of *crystallized* versus

fluid intelligence. The theory, elaborated by Horn (1985), states that crystallized intelligence depends to the largest extent on accumulated knowledge from one's culture. Thus, crystallized intelligence should increase (or at the very least remain stable) across the life span. Fluid intelligence is thought to depend on physiological integrity and functioning and, thus, should decline with increasing age. Thus, the WAIS–R data largely support the Cattell–Horn theory. Horn (1985) estimated that the performance rate of decline is approximately 5 IQ points per decade.

An alternate hypothesis to fluid intelligence decline is the fact that older people are simply slower than younger people, and all of the performance subtests of the WAIS–R have time limits and bonus points for speedy solutions. Although slowness associated with aging is an incontestable fact, evidence is fairly strong that slowness alone cannot account for the decline in PIQ. Even when time limits are ignored, older people will still score lower than younger people on nearly all of the WAIS–R performance subtests. Salthouse (1984) suggested that the age-related decline must be attributed to a basic maturational alteration of the central nervous system, resulting in a slowing of the processing of almost all types of information. Research also firmly supports the hypothesis that despite the decline in PIQ with increasing age, PIQ still remains a good predictor of the g factor, or general intelligence, in older adults (see Kaufman, 1990, for a review of this evidence).

When the individual subtests are rank ordered by the greatest decline according to age from the WAIS–R standardization sample ($N = 1,880$), the following pattern appears (the denotation V indicates that the subtest is a measure of VIQ, and P indicates a measure of PIQ): 1. Digit Symbol (P), 2. Picture Arrangement (P), 3. Block Design (P), 4. Object Assembly (P), 5. Picture Completion (P), 6. Similarities (V), 7. Digit Span (P), 8. Arithmetic (P), 9. Comprehension (V), 10. Information (V), 11. Vocabulary (V).

The preponderance of performance subtests as the most sensitive to aging is not surprising given the previous discussion. The information, however, is useful in a variety of ways. Although individual patterns may vary, clinicians may use the previous table to document what may represent potentially abnormal aging patterns. For example, if an older person obtained their lowest scores on the Vocabulary or Information subtests, the clinician would certainly be well advised to investigate further. Coolidge, Peters, Brown, Harsch, and Crookes (1985) found that in an older sample of patients suffering from dementia ($N = 50$), the Vocabulary subtest stayed intact throughout the milder stages of dementia. They also found when the Block Design scaled score fell below half of that of the Vocabulary scaled score, an indication that dementia was likely.

Clinicians should be advised, however, that a statistical abnormality may not translate into a clinical or pathological abnormality. Thus, pattern comparisons may be useful to form hypotheses and for performance comparison purposes, but caution is always wise in any statistical pattern analysis. The clinical relevance of any pattern analysis finding should always be thoroughly investigated.

In conclusion, the WAIS–R remains an excellent test of intelligence for all adults. Because of the careful age, gender, race, and geographic stratification

in its standardization, the use of the WAIS–R is continually substantiated at least on a psychometric basis. There are, however, potentially as many uses as abuses with the WAIS–R. Although Wechsler (1981) thought that it might measure motivation (the trait) to some degree, it is clear that it largely does not measure motivation, nor does it measure the worth of a person. Thus, clinicians should again be urged to use caution and to use their own intuition when evaluating any adult, but particularly older adults. As a measure of intellectual performance or decline, the WAIS–R is probably peerless. But as a measure of creativity, emotional stability, conscientiousness, leadership, a person's value to most organizations or systems, or a plethora of other referral questions, the WAIS–R may be inappropriate. Notably, the WAIS–III (Wechsler, 1997) has recently been published and likely will continue to set the standard for intelligence testing in older people.

Guidelines for Testing Older Adults

As highlighted throughout this chapter, psychological testing of older adults is different in many ways than the typical assessment of younger persons. We hope the following guidelines and tips will assist clinicians in their assessment of older adults. In general, a recurring theme will be that the clinician needs to be more flexible when engaging older clients.

1. Adjust the environment to reduce the impact of sensory and physical declines. For example, the testing room should be brightly lit and quiet. It can be helpful to sit closer to the respondent and to speak slowly, loudly, and concretely, without psychological jargon. Make sure respondent is using her or his hearing aids or glasses. Some test print is too small for anyone with a visual impairment. Big-print versions of some tests are available and should routinely be used even with healthy older people. Other tests can be retyped in larger fonts. If visual impairment is severe, oral administration of some self-reports may be necessary. Finally, testing the older person at home can be a useful alternative if transportation is problematic or a functional assessment is required.

2. Adjust traditional time constraints. Allow sufficient time for the older person to complete self-report tests and to respond to interview questions. It is important not to rush the person because many older adults rate their health care based on how much time they spend with the professional, and rapport will deteriorate if the client is not given ample time. Long, detailed interviews and testing batteries are not tolerated well by many older people. Many older adults need more frequent breaks during testing, and it is often necessary and helpful to divide testing sessions, because of fatigue. Be sensitive here, because the person's score will not be an accurate reflection of the measurement construct if he or she is fatigued. Finally, conduct the testing in the morning because fatigue may impair performance later in the day.

3. Explain clearly the purpose and procedures of the assessment process

and the client's role. Address any concerns or fears the older person has about the evaluation. The current cohort of older people was raised in an era when psychiatric services were reserved mainly for the severely mentally ill and psychiatric care was associated with tremendous shame and stigmatization. Some people may erroneously believe that the purpose of the testing is to "find out if they are crazy," and they need reassurances and education about the clinician's more benign intentions. Expressions of empathy and compassion help build rapport between clinician and client.

4. Be open to discussing the client's concerns about the clinician's age. Older clients may see younger therapists as similar to their children or the child they never had. It is helpful to acknowledge existing age differences and to ask the client to express their concerns, so the issue is addressed up front.

5. Generally address the person by her or his proper name, to denote respect. Follow the client's lead if he or she wants to be more familiar and on a first name basis.

6. The older client is usually interviewed first and alone. This denotes respect for the person and may elicit information not otherwise obtainable when family members are present (Lazarus et al., 1991).

7. Make greater use of ancillary sources of information. This is a basic tenet in geriatric assessment. Whenever possible, close family members and caregivers are interviewed for corroborative information and to obtain information not available from the client (i.e., when there is cognitive impairment or in conditions where the person may lack insight, such as substance abuse and psychotic disorders). Involving family members in the assessment process also can help secure their cooperation with the intervention plan. A close evaluation of the family and relationship patterns can also suggest the need for family therapy.

8. Maintain an active therapeutic stance when evaluating the client and working through patient and family resistances to assessment and therapy (Lazarus et al., 1991). Also, encourage active collaboration and participation on the part of the older client who is used to the more passive medical model of evaluation and treatment.

9. Provide overt expressions of concern for the older client (Lazarus et al., 1991). Many older adults respond especially well to gentle physical touching (e.g., hold hand during an interview or pat on shoulder). Likewise, symbolic giving such as offering a cup of water or tea is typically greatly appreciated and helps the older person feel more comfortable.

10. Fully assess concomitant medical conditions and medication use. It is crucial to take a thorough medical history from the client, including an assessment of prescribed and OTC medications. As noted previously, this is important to consider because many older people have at least one chronic medical condition and many medical illnesses and the medications used to treat them can cause psychiatric conditions (e.g., delirium, depression, anxiety, and psychosis). Have older clients

bring all medications to the testing session. Finally, referral for a thorough medical workup is always indicated if the client has not recently been medically evaluated. Medical causes must first be ruled out before psychiatric diagnoses can be assigned.

11. Use elder-specific assessment measures when available, including the GDS, GHS, Geriatric Sentence Completion Form, and Senior Apperception Test. If elder-specific measures are not available, thoroughly investigate the psychometric properties of the instrument with older populations and be aware of the normative sample used in scoring. If data on operating characteristics and clinical utility of the instrument with older people are not available or are limited, be cautious in interpreting the results.

12. Make realistic treatment goals that consider the patient's limitations, to avoid frustration and a sense of failure. For example, improvement in functioning is not an appropriate goal for patients with dementia, whereas treatment for depression often results in a full recovery.

13. Provide greater assistance in coordinating services with other health professionals that may help with the client's care, such as social services, housing, financial aid, and psychiatric evaluation. Older people typically are less skilled in getting appropriate services from bureaucratic agencies than younger adults. And because your testing recommendations will frequently include referrals to other agencies, your client will require help in managing this task.

14. Instill hope. Remember that one purpose of assessment is to develop treatment options. Be appropriately optimistic with the older clients if interventions are likely to assist the clients in tackling their problems. Indeed, the instillation of hope may even be therapeutic in its own right and is especially important for older people who often are unaware of the benefits of psychological interventions.

Conclusion

In this chapter, we reviewed many general issues regarding the psychological testing of older adults, including psychometric concerns about assessment tools and health-related deficits that can impact testing. We also reviewed the most common clinical disorders and conditions, provided information on assessment instruments that clinicians may use, and offered guidelines for conducting a testing battery on older adults. Clinicians and researchers also should be aware of two useful reference tools regarding the assessment of older adults. The first is the *Geropsychology Assessment Resource Guide* (Bialk & Vosburg, 1993), which was developed by Department of Veterans Affairs psychologists. This guide provides general (one-page) descriptions of 116 assessment instruments, including information on advantages and disadvantages, primary source references, and vendors. The second helpful resource is the *Psychological Assessment of Older Adults: A Graduate Education Teaching Module* (Qualls, Wacker, & Bloodworth, 1997) which was designed to help teachers of graduate psychological testing courses include specialized information on testing of older adults.

We hope this chapter helps clinicians and researchers in their testing of older persons, with the outcome of a deeper understanding of the older persons' concerns and problems and more effective intervention strategies.

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