Chapter 4

SOCIAL PROBLEM SOLVING, PERSONALITY DISORDER, AND SUBSTANCE ABUSE

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INTRODUCTION

Empirical support for the interrelation between substance abuse, personality disorders, and criminal activity is well summarized in the literature (Brooner, Kidorf, King, & Stoller, 1998; Cottler, Compton, Ridenour, Abdallah, & Gallagher, 1998; Crowley, Mikulich, MacDonald, Young, & Zerbe, 1998; Friedman, 1998; Hernandez-Avila et al., 2000; Kaye, Darke, & Finlay-Jones, 1998; McMurran, Blair, & Egan, 2002; van den Bree, Svikis, & Pickens, 1998). Foremost, substance abuse and personality disorders are highly comorbid, particularly when Anti-social Personality Disorder (APD) is considered (Abram, 1989; Armstrong & Costello, 2002; Carey & Carey, 1990; Kessler et al., 1996; Longato-Stadler, von-Knorring, & Hallman, 2002; Lynam, Leukefeld, & Clayton, 2003; Messina, Wish, Hoffman, & Nemes, 2002; Woody, McLellan, Luborsky, & O’Brien, 1985). The estimated frequency of substance abuse co-occurring with personality disorders ranges from 57–91% across personality disorders (Nace, Davis, & Gaspari, 1991). Furthermore, research suggests that coexisting APD and substance abuse decreases success rates for many different forms of substance abuse treatment (Alterman, Rutherford, Cacciola, McKay, & Boardman, 1998; Goldstein et al., 1999; Rutherford, Alterman, & Cacciola, 2000). These findings are somewhat disheartening given that dual-diagnosis patients have been poorly conceptualized and underserved by traditional mental health (Carey & Carey, 1990).

Substance abuse and personality disorders are pervasive and developmentally comorbid. Numerous studies have found that these variables consistently co-occur during the transition from adolescence to young adulthood (Anderson, Mahoney, Wennberg, Kuehlhorn, & Magnusson, 1999; Crowley et al., 1998;
Kjelsberg, 1999; Marks, Stewart, & Brown, 1998; McCord, 1995; Myers, Stewart, & Brown, 1998; Stattin, & Romelsjoe, 1995). These relations have been identified in many countries including the United States, Finland, Hong Kong, Germany, Sweden, Denmark, and Britain (Byqvist, 1999; Hodgins, Mednick, Brennan, Schulsinger, & Engberg, 1996; Kerner, Weitekamp, & Thomas, 1997; Longato-Stadler et al., 2002; McMurray et al., 2002; McMurray, Egan, Blair, & Richardson, 2001; Pulkkinen, Virtanen, Klinteberg, & Magnusson, 2000; Sandell & Bertling, 1999; Sass, Erkwoh, & Rodon, 1998; Segest, Mygind, & Bay, 1989; Tiihonen, Isohanni, Raesaenen, Koiranen, & Moring, 1997; Timonen et al., 2002). Despite these data, our understanding regarding their relation and the overlap between variables remains poorly understood. This is particularly unfortunate given the clinical challenge in treating these problems as well as the financial costs, rehabilitation efforts, and negative consequences experienced by patients with dual diagnosis, by their families, and the greater community.

A major limitation in our understanding of these relationships pertains to disagreement regarding causal pathways among these variables. One hypothesis suggests that APD may lead to substance use and abuse. Support for this hypothesis has come from several longitudinal studies. For example, Kratzer and Hodgins (1997) found that 17.5% of boys with serious childhood conduct problems had been hospitalized for severe substance abuse by age 30 compared to only 1.6% of boys without conduct problems. Other studies have found that early conduct problems are related to early substance use and later abuse (Brook, Cohen, Whiteman, & Gordon, 1992; Dobkin, Trembley, Masse, & Vitaro, 1995; Ferguson & Lynskey, 1998). Evidence has also been found, however, for an alternative hypothesis: substance abuse leads to antisocial behavior (Allen, Leadbeater, & Aber, 1994; Mason & Windle, 2002). Antisocial behavior and substance abuse may be related because they share common antecedents or causes. In a recent study, Lynam et al. (2003) tested the ability of the Five Factor Model, a general model of personality structure, to account for the temporal stability of antisocial behavior and substance use/abuse and the correlation between the two variables at points in time. Results indicate that personality traits account for relatively large proportions of the variance in both factors, with $R^2$ ranging from 0.19 for early substance misuse to 0.30 for early antisocial behavior. Personality profiles were also highly similar with correlation coefficients ranging from 0.87 to 0.97.

These relationships are further confused by a lack of understanding of the variables that may be embedded within these relations. A number of models have been developed to explain these relationships and include, but are not limited to, biological, behavioral, cognitive, and social learning approaches. One social-cognitive variable in particular that has been implicated to underlie such relationships is social problem-solving skills. This approach to understanding the relations between substance abuse, personality disorders, and criminal behavior has come from social-cognitive models that stipulate that substance abuse, personality disorders, and criminal behaviors are likely to exist when an individual possesses inadequate coping skills or cognitive skill deficits (Bijttebier & Vertommen, 1999; Foglia, 2000; Marlatt, Baer, Donovan, & Kivlahan, 1988). Empirical support for these variables has consistently shown an association
between each of the variables and dysfunctional interpersonal relationships. This is consistent with both cognitive social learning theory and cognitive behavioral therapy which emphasize the interaction between the individual and their environment in order to understand behavior. Thus, the hypothesis that social problem-solving skills might be implicated as an underlying factor is worthy of further examination.

Real-life problem-solving skills can be operationally defined as the ability to work towards a successful resolution of real-life situations. Successful problem solvers typically generate a higher proportion of relevant problem-solving responses and plan a strategy for achieving the stated goals (Platt, Scura, & Hannon, 1973). Platt and Husband (1993) assert that effective problem-solving skills are essential to successful functioning in everyday life. That is, most individuals inevitably encounter problems or situations that arise in the course of daily living, and adjustment is related to making appropriate responses and decisions. Social problem solving involves the cognitive-behavioral process in which an individual engages in identifying effective strategies of coping with real-life problematic situations (D'Zurilla & Nezu, 1982; Nezu & Ronan, 1988). In particular, D'Zurilla and Goldfried (1971) proposed that social problem-solving skills are an essential part of one's ability to cope effectively. They further identified five specific components involved in the problem-solving process: (1) problem orientation; (2) problem definition; (3) generation of alternative solutions; (4) decision-making; and (5) solution implementation and verification of the selected solution. Empirical support for deficits in social problem-solving skills have been associated with adjustment to stressful situations (Bonner & Rich, 1988), depression (Kant, D'Zurilla, & Maydeu-Olivares, 1997), obesity (Perri et al., 2001) substance abuse (Intagliata, 1978; Platt & Husband, 1993), cancer (Nezu, Nezu, Houts, Friedman, & Faddis, 1999), and behavioral health issues, generally (Elliott, Grant, & Miller, 2004).

Empirical support for the role of social problem-solving as a causal factor in the conceptual constellation of substance abuse, personality disorders, and criminality has been demonstrated between each of these variables independently and to a lesser extent among these relationships (McMurran et al., 2002; McMurran, Egan, et al., 2001). The reason why poor social problem-solving skills may influence these relationships is believed to be related to: (1) an inhibition of problem solving skills; (2) lack of skills; and/or (3) deficits in these skills. That is, individuals may have the ability to carry out effective problem-solving skills, but they do not apply such skills, and/or individuals may not have acquired adequate levels of particular skills to engage in effective problem solving. Absence of or deficits in effective problem-solving skills are associated with interpersonal difficulties and other mental health and behavioral problems. McGuire (2001) contends that individuals may demonstrate ineffective problem-solving strategies as a consequence of limited learning opportunities, constrained by parenting or other socialization influences.

Another reason why social problem solving is believed to influence these relationships pertains to the similar behaviors found in personality disorders (APD in particular), substance abuse (Gerstley, Alterman, McLellan, & Woody, 1990), and criminality. For example, personality disorders, substance abuse, and
criminality all have been associated with impulsivity, irresponsibility, sensation seeking, escape/avoidance, and criminal behavior. As in APD, individuals with Borderline Personality Disorder (BPD) are often at risk for the development of substance abuse. Estimates of the prevalence of substance abuse among individuals with BPD reach as high as two-thirds (Drake & Wallach, 1989; Dulit, Fyer, & Haas, 1990). Substance abuse in the context of BPD may also lead to aggravated symptomatology, including more self-destructive behaviors and suicidal thoughts (Links, Heslegrave, Mitton, van Reekum, & Patrick, 1995).

In sum, the extant literature clearly documents a strong association between substance abuse, personality disorders, and criminal behavior; however, a full understanding of these “mega-variables” is obscured by their conceptual overlap and the existence of competing causal models. Social problem-solving has been identified as an important variable to study when dismantling the mega-variables and their interrelations. The remainder of the chapter reviews studies involving social problem solving and each of the mega-variables, summarizes methodological problems inherent in such studies, and outlines directions for future research.

SOCIAL PROBLEM SOLVING AND SUBSTANCE ABUSE

The influence of social problem-solving skills on substance use has been examined most extensively in clinical populations at high risk for substance abuse. One proposed hypothesis for understanding why poor problem solving might be related to substance abuse is that individuals with social problem-solving deficits may find themselves lacking the specific skills necessary to negotiate their way out of risky situations involving substances or they may be unable to identify high risk situations until it is too late (Platt & Husband, 1993). Another hypothesis is that these individuals may have deficiencies in these skill areas, leading to failures or unsatisfactory outcomes in interpersonal situations and tasks, thereby leading to negative moods or affective states that lead back to substance use (Marlatt & Gordon, 1980; Platt & Metzger, 1987). In fact, it has been found that substance abusers demonstrate deficits in these types of skills (Appel & Kaestner, 1979; Frank, 1993; Hermelin, Husband, & Platt, 1990; Intagliata, 1978; Laine & Butters, 1982; Patterson, Parsons, Schaeffer, & Errico, 1988; Platt et al., 1973) and that persons progressing well in recovery programs evidence more effective skills in problem-solving scenarios (Appel & Kaestner, 1979; Intagliata, 1978). Carey and Carey (1990) also demonstrated that dually-diagnosed patients and psychiatric controls in comparison to community controls engage in significantly poorer problem solving and give verbal solutions that are poorly elaborated and generally less effective. Furthermore, research supports an association between a tendency to avoid coping with life problems and greater alcohol use among young adults (Cooper, Russell, Skinner, & Frone, 1992; Fromme & Rivet, 1994), older problem drinkers (Moos, Brennen, Fondacaro, & Moos, 1990), and college students (Evans & Dunn, 1995). Links between self-appraised ineffective problem solving and retrospective accounts of substance
abuse have been found among undergraduates (Dreer, Ronan, Ronan, Dush, & Elliott, 2004; Godshall & Elliott, 1997; Heppner, Hibel, Neal, Weinstein, & Rabinowitz, 1982; Williams & Kleinfelter, 1989) and among adult children of alcoholics (Wright & Heppner, 1991).

Other support for the notion that poor problem-solving skills are associated with substance abuse in social situations comes from the cognitive social-learning literature on alcohol abuse which suggests that a failure to generate appropriate alternative behaviors to drinking may serve as a salient predictor of relapse to drinking (Williams & Kleinfelter, 1989). For example, Marlatt and Gordon (1980) found that following six months of initial abstinence for problem drinkers, 70–80% reported a relapse. Relapse was found to be related to interpersonal conflict, social pressure to drink, and negative emotional states. In an earlier study, Marlatt (1978) also found similar reported antecedents to relapse such as interpersonal conflict or social pressure to drink in more than 50% of problem drinkers who relapsed.

Impulsivity, which has been associated with ineffective problem solving, has also been implicated in alcohol use. For example, McMurran et al. (2002) investigated the associations among impulsiveness, social problem-solving, aggression, and alcohol use in a non-offender sample of 70 British men. Higher impulsivity was found to be related to poorer social problem solving, and poorer social problem solving was related to greater aggression. Combining impulsivity and social problem solving in the analyses indicated that poor social problem solving, not impulsivity, was the variable that exerted the most influence over aggression. Ineffective social problem-solving abilities may also be associated with risk-taking tendencies in a fashion that contributes to other detrimental consequences. Persons who incurred a severe physical disability and who were using substances at the time of injury reported a more negative problem orientation and more risk-taking tendencies than persons who were not using substances at injury (Dreer, Elliott, & Tucker, 2004). Although these data do not reflect any causal relationship, they do suggest a constellation of behaviors that compromise personal health and well-being.

Finally, research examining the neurocognitive abilities of chronic alcoholics, particularly on tasks involving problem-solving abilities (concept formation, mental shifting, disinhibition, flexibility in thinking, generation of solutions, and profit from feedback) and memory functioning supports the relations between substance abuse and social problem-solving skills (Beatty, Katzung, Nixon, & Moreland, 1993; Butters & Laine, 1982; Cynn, 1992; Schaeffer, Parsons, & Errico, 1989). These particular studies document the effect of chronic alcohol use on the frontal lobes, an area of brain functioning associated with problem solving.

Despite this accumulating evidence, other research has found contradictions in the purported relationship between social problem solving and addictive behavior. For example, Larson and Heppner (1989) found that men receiving inpatient treatment for alcohol addiction were more negative than comparison groups in their self-report of problem-solving abilities, but these reports were unrelated to severity of alcohol abuse. Preliminary research of problem-solving interventions for persons receiving treatment for dually-diagnosed disorders (e.g., people
dually diagnosed with alcohol addiction and mental illness) has not been promising (Carey, Carey, & Meisler, 1990).

SOCIAL PROBLEM SOLVING AND PERSONALITY DISORDERS

The role of social problem-solving skills has been examined to a lesser extent in personality disorders (Harlow & Cantor, 1994; Platt & Siegel, 1976; Sutker, Winstead, Galina, & Allain, 1991; Wang, Heppner, & Berry, 1997). According to McMurran, Fyffe, McCarthy, Duggan, and Latham (2001), poor social problem solving is hypothesized to be both a cause and a consequence of dysfunction. In one study conducted by McMurran and colleagues (2001) that examined the relationship between personality and social problem solving in 38 mentally ill and 14 personality-disordered participants detained in a regional secure unit, no differences between the mentally ill and personality-disordered groups were found (McMurran, Egan, et al., 2001). The groups were then pooled into a single sample. Correlations revealed that high neuroticism (N) was related to poor social problem solving and high scores on the other five traits were related to good social problem solving. N was also negatively correlated with extraversion (E), conscientiousness (C), and agreeableness (A). McMurran, Egan, et al. (2001) suggest that a high N may signal emotional reactivity which compromises effective social problem solving. A positive correlation between E and a more positive problem-solving orientation remained, probably because optimism is a defining feature of high E.

In another study, Herrick and Elliott (2001) examined the relation of self-appraised social problem-solving abilities and personality disorder characteristics to the personal adjustment and treatment adherence of 117 persons with dual diagnoses undergoing inpatient substance abuse treatment. Results indicated that elements of the problem orientation component significantly contributed to the prediction of depressive behavior and distress after controlling for personality disorder characteristics among the participants. Self-appraised problem-solving abilities predicted the occurrence of “dirty” drug and alcohol screens during treatment and attendance in a predicted fashion. However, a low sense of control over emotions when solving problems was associated with compliance with the first scheduled community visit following discharge. This confusing pattern of results implies that little may be known concerning the real-life aspects of problem-solving abilities among persons with dual disorders.

Other studies have also supported a link between social problem solving and personality disorders. For example, Else, Wonderlich, Beatty, Christie, and Staton (1993) compared a group of 21 batterers with a group of nonbatterers and found that:

1. Batterers scored higher for characteristics associated with Borderline and Antisocial Personality Disorders.
2. Batterers were also more likely to have experienced physical or emotional abuse.
3. Their problem-solving skills were significantly worse than published norms for both of the groups.
The authors concluded that borderline-antisocial personality traits, certain types of hostility, and previous histories of abuse during youth may be predisposing factors for spousal abuse.

Ingram, Marchioni, Hill, Caraveo-Ramos, and McNeil (1985) examined recidivism, perceived problem-solving abilities, type of offense, and personality characteristics of an incarcerated male population. Twenty African-Americans and 32 Caucasians were selected systematically from inmate populations. Results revealed significant elevations on MMPI F (confusion), L (lie), Re (social responsibility), and Do (dominance) scales. However, the interpretation of this finding is limited because the scale score means fell within the normal ranges of the MMPI scores. Recidivists scored significantly higher than nonrecidivists on the Impulsive Scale which was obtained from an earlier version of the Problem Solving Inventory (PSI; Heppner, 1988). African-American recidivists generated significantly higher scores on the MMPI F Scale than did African-American or Caucasian nonrecidivists. The personality disorder (Pd) Scale demonstrated a significant main effect for type of offense, with offenders incarcerated for violent crimes scoring higher than nonviolent criminals. In another study that examined coping strategies, stress, and emotion as predictors of personality disorder pathology in 154 university students, results showed strong correlations between the presence of personality disorder features and the coping strategies of escape-avoidance and accepting responsibility (Watson & Sinha, 1999-2000). Weak or negative associations were present between problem-solving and positive reappraisal strategies. Further, personality disorder was associated with stress, negative emotions, and low control and efficacy.

Finally, Kehrer and Linehan (1996) investigated the predictive relationship between interpersonal and emotional problem-solving skills and parasuicidal behavior in female outpatients with BPD. Results indicated that inappropriate problem solving measured at four and eight months significantly predicted subsequent parasuicidal behavior. Parasuicidal behavior was predicted by both suicidal and nonsuicidal inappropriate responses but not by active, passive, and self-soothing problem-solving strategies.

In contrast to the limited number of studies that have provided support for a relationship between social problem-solving and personality disorders, one published study did not provide support for such a relationship. Bijttebier and Vertommen (1999) investigated the relationship between personality and three basic coping modes (Social Support Seeking, Avoidance, and Problem-Solving) in a sample of 137 psychiatric inpatients. In general, results revealed a negative association between the Social Support Seeking coping mode and the dimensional personality disorder scores for Paranoid, Schizoid, Schizotypal, Avoidant, and Passive-Aggressive Personality Disorder scales. To a lesser extent, this pattern was also the case for Antisocial, Depressive, and Borderline Personality Disorder scales. For the Avoidance mode, a significant positive relationship was found for Paranoid, Schizoid, Schizotypal, Borderline, Avoidant, Depressive, Dependent, and Passive-Aggressive Personality Disorder scales. However, a general negative association between personality disorders and the Problem-Solving mode were not observed. The authors hypothesized that this lack of relationship may have been attributed to the nature of the coping instrument
used which may not have captured specific problem-solving strategies and skills.

SOCIAL PROBLEM SOLVING AND CRIMINAL BEHAVIOR

The relationship between social problem solving and criminal behavior has been thoroughly examined in the literature (Ireland, 2001; McGuire, 2001; McMurran et al., 2002; McMurran, Richardson, Egan, & Ahmadi, 1999; McNamara, Ertl, & Neufeld, 1998). Poor social problem-solving abilities have been hypothesized to lead to criminal behaviors as maladaptive attempts to solve personal or interpersonal problems (McMurran et al., 1999). One of the explanations why poor social problem-solving skills may be implicated in criminality is based on how an individual processes information in relation to a social problem, including encoding social cues in the environment, interpreting these cues, identifying the problem(s), generating responses, deciding on responses, and implementing a response. These steps are consistent with the social problem-solving model that incorporates five components:

1. problem orientation;
2. problem definition and formulation;
3. generation of solutions;
4. decision-making;
5. solution implementation and verification.

McGuire (2001) emphasizes that it should not be assumed that all offenders lack such skills, rather, an objective individualized assessment is needed to identify existing skills and determine those not yet developed.

Research has demonstrated deficits in social problem-solving skills among those engaging in criminal and/or aggressive behavior. Such individuals have difficulty generating solutions to hypothetical problems and those solutions produced are generally not very effective (Ireland, 2001; Richard & Dodge, 1982; Slee, 1993). Mahoney and Arnoff (1978) reviewed evidence from research conducted on problem-solving skills in deviant and normal populations and concluded that: (1) those classified as deviants were deficient in their ability to generate solutions to problems; (2) solutions that were suggested were often antisocial; and (3) their predictions of the probable consequences of different options were highly inaccurate. A considerable body of evidence shows an association between poor problem-solving skills and hostility and aggression in children/adolescents (Akhtar & Bradley, 1991; Lochman & Dodge, 1994; Slaby & Guerra, 1988) and in young adult offender populations (Biggam & Power, 1996, 1999; Keltikangas-Järvinen & Pakaslahti, 1999; McMurran et al., 1999; McMurran, Egan, et al., 2001; McMurran, Fyffe et al., 2001). Further support for the argument that limited or distorted cognitive processes may be a contributory factor in some offenses has been found from studies on problem-solving difficulties and recidivist groups and this may be a useful point of intervention (Ross & Fabiano, 1985; Zamble & Porporino, 1990; Zamble & Quinsey, 1997).
Along similar lines, poor verbal information processing ability has been proposed as a basis for impulsive aggression. Hypothesized mechanisms purport that poor verbal information processing leads to impulsive aggression associated with frustration caused by verbal deficits, poor assimilation of prosocial rules, and a lack of internalized verbal orders to inhibit behavior (Barratt, Stanford, Kent, & Felthous, 1997). Studies that have investigated social problem-solving skills in children and adolescents have found that aggressive youngsters seek less information, generate fewer potential solutions, and choose more aggressive solutions in comparison with their non-aggressive counterparts (Akhtar & Bradley, 1991; Keltikangas-Järvinen & Pakaslahti, 1999; Perry, Perry, & Rasmussen, 1986; Slaby & Guerra, 1988).

Other studies have examined the relationship between social problem solving and criminality. Grier (1988) investigated whether 30 male incarcerated sexual offenders differed in means–ends thinking when compared with 30 nonoffender controls. Results indicated no differences between the two groups on problem-solving skills as measured by the Means–End Problem-Solving instrument (MEPS; Platt & Spivack, 1975). On one dependent measure, a task requiring conceptualizing a means of reconciling a heterosexual relationship, sexual offenders generated fewer means for solving problems than nonoffender controls.

Biggam and Power (1999) examined the relationship between means–end thinking and psychological distress in 100 young incarcerated Scottish offenders who exhibited difficulties in adjusting to the prison regimen. Four groups were evaluated and results suggested a hierarchy of problem-solving deficits and psychological distress that were most pronounced in the inmates placed in suicidal supervision. Deficits in problem solving were also found to correlate with higher levels of distress. Analyses of covariance revealed important relations between the status of the individuals and their adjustment to prison after controlling for age and the total amount of time incarcerated.

In contrast to other studies that have demonstrated deficits in problem-solving skills, Pugh (1993) found different results. Pugh examined the effect of incarceration on locus of control and problem-solving skills in a sample of 168 adult male prisoners and evaluated a program, called Decisions, designed to increase internal locus of control by improving problem-solving skills. Participants were assessed and then divided into treatment and control groups. In contrast to a priori hypotheses, a substantial number of participants were found to have an internal locus of control and adequate problem solving skills.

METHODOLOGICAL PROBLEMS

Despite the growing support for social problem solving as a factor that influences the relationships between substance misuse, personality disorders, and criminality, methodological problems pose obstacles to gaining a clear understanding these relations. For several reasons, these variables and their relations are difficult to study. One of the major difficulties lies in the reliability of psychiatric diagnosis (Cottler et al., 1998; Perry, 1992; Spitzer & Fleiss, 1974). Cottler and
colleagues (1998) emphasize problems with low interrater and test–retest agreement between researchers regarding the psychiatric diagnosis of patient study participants. In response to this, attempts have been made to systematize and standardize the assessment and definition of psychiatric status. Most efforts have focused on developing and refining standardized nosology and decision criteria. Two widely used systems are the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition, text revision (DSM-IV-TR; American Psychiatric Association, 2000) which is a multiaxial system and the 10th revision of the International Classification of Diseases and Related Health Problems (ICD-10; World Health Organization, 1993). Both systems incorporate biopsychosocial factors as contributing to observed clinical syndromes. Other advancements in methods have included structured interviews such as the Diagnostic Interview Schedule (DIS; Robins, Helzer, Croughan, & Ratcliff, 1981) and objective self-report formats. As these assessment methods have evolved and been refined, the reliability of diagnoses has slowly improved.

Another methodological concern involves a reliance upon self-report instruments. A number of advantages to using self-report measures have been noted (i.e., time efficiency, low cost, brevity, ease of administration); however, concerns about the accuracy of individuals’ perceptions of their symptoms, behaviors, cognitions, and emotions, continue to be raised. Previous arguments against using self-report measures over performance-based measures relate to concerns regarding face validity, specifically that individuals may: (1) tend to inaccurately estimate their true abilities; (2) intentionally attempt to inflate their actual abilities for secondary gain or avoidance of punishment; and/or (3) believe that they actually hold such abilities, but when confronted with problematic situations, fail to implement such skills. Thus, concerns have been raised when relying primarily upon self-report measures when evaluating skill deficits of individuals with a history of or suspected substance abuse problem/criminal behavior when motivation to avoid punishment and/or negative consequences is high. Given that antisocial personality disorder is characterized by a tendency to manipulate, deceive, and/or lie, the veracity of self-report data is questionable. However, some investigations that have examined reliability and validity of self-reported drug use and criminality have concluded that self-reported behaviors when compared to biomarkers, criminal records, and collateral interviews, show respectable reliability and validity (Darke, 1998). As a result, a lack of consensus exists regarding the best means to assess such variables.

Yet another methodological problem that arises is the fundamental difficulty in defining and conceptualizing constructs. Difficulties with conceptualization may be more challenging than reliably diagnosing personality disorders (Coid, 2003; Cottler et al., 1998; Mellsop, Varghese, Joshua, & Hicks, 1982; Spitzer, Forman, & Nee, 1979). Clinicians may at times place little value on distinctions between personality disorder categories. For example, in the Herrick and Elliott (2001) study of problem-solving abilities among persons in a dual-disordered (primary Axis I or Axis II diagnosis [*Diagnostic and Statistical Manual of Mental Disorders*, third edition, revised; DSM-III-R; American Psychiatric Association, 1987] indicating a major behavioral disorder substance abuse/dependence problem and a coexisting Axis I or Axis II diagnosis) treatment program, 77% of the participants...
were diagnosed by clinic staff as having a Personality Disorder Not Otherwise Specified. Responses to the Millon Clinical Multiaxial Inventory-Second Edition (MCMI-II; Millon, 1987) revealed a preponderance of individuals between Cluster B (37%) and Cluster C characteristics (22%), and very few with Cluster A characteristics (4%).

Descriptions of personality disorders have varied throughout the literature; however, advances have been made toward developing models that make personality disorders more understandable (Miller, Lynam, & Leukefeld, 2003). One of the more widely accepted trait models of personality is the five-factor model which outlines five coping styles in relation to the ‘Big Five’ personality dimensions: Neuroticism (N), Extraversion (E), Openness (O), Agreeableness (A), and Conscientiousness (C) (Costa & Widiger, 1994). Matthews, Saklofske, Costa, Deary, and Zeidner (1998) have suggested that coping with problems in everyday living is determined by dispositional factors and that a high N may dispose an individual to maladaptive coping by focusing on emotions, self-blame, escapist fantasy, withdrawal, and indecisiveness. However, high E may indicate coping through an active and optimistic approach to problems. High O, on the other hand, may predict a willingness to rethink problems from different perspectives and high C may be associated with a strong task-focus. High A has had no specific relation. Thus, McMurran, Egan, et al. (2001) speculate that the five personality factors may be linked to specific modes of social problem solving and have further identified the scales in which the factors might correlate with the Social Problem-Solving Inventory-Revised (SPSI-R; D’Zurilla, Nezu, & Maydeu-Olivares, 2002). Other models of personality have paved the way to better understand and conceptualize personality (e.g., Cloninger’s Temperament and Character model; Eyesenck’s P-E-N model; Tellegen’s three factor model). Finally, there have been empirical advancements in self-report methods to evaluate personality constructs in response to criticisms that self-report instruments show a tendency towards overdiagnosis of personality disorders. For example, several of the most widely researched and empirically supported measures include the Personality Assessment Inventory (PAI; Morey, 1991), the Minnesota Multiphasic Personality Inventory-Second Edition (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989), and the Millon Clinical Multiaxial Inventory-Third Edition (MCMI-III; Millon, 1994).

SOCIAL PROBLEM SOLVING AND EMPIRICALLY SUPPORTED TREATMENTS

Despite these methodological concerns, a number of empirically-supported prevention and treatment interventions have been developed in response to the research that supports a social problem-solving influence. Social problem solving has been a core part of the major cognitive-behavioral therapies that have targeted offender, substance abuse, and personality disorder treatment. Many of the social problem-solving therapies that have been developed employ a social problem-solving approach as the primary intervention or as a component to develop more effective cognitive problem-solving skills. In general,
problem-solving training or therapy is designed to help individuals find ways to deal more effectively with problems using a systematized sequence and steps (McGuire, 2001). Problem-solving techniques typically focus on improving cognitive and behavioral processes that enable the individual to deal more rationally and effectively with problems in living (Mahoney & Arnkoff, 1978; Spivack, Platt, & Shure, 1976). Application utilizes various methods of change in both cognitive and behavioral realms including functional analysis of habitual reactions, skills practice, rehearsal and feedback, self-monitoring, analysis of thought patterns, Socratic questioning, and guided discussion.

Social Problem Solving as a Primary Intervention

Several major social problem-solving approaches have been developed as a primary intervention. In most of these approaches, the primary focus of intervention is to assist individuals in acquiring or improving skills. Some approaches have focused on a single component of problem-solving training (Chandler, 1973), whereas, others have emphasized all aspects of the problem-solving model (Nezu, 1986; Nezu & Perri, 1989). For example, D’Zurilla and Nezu’s (1999) Problem Solving Therapy (PST) emphasizes the essential role of problem-solving skills in coping and in increasing the likelihood of selecting the best behavior to achieve goals. The objective is to teach the five critical components of problem-solving.

A related approach, known as Interpersonal Cognitive Problem-Solving (ICPS) therapy (Spivack et al., 1976), was developed from work in applied settings with a developmental emphasis. This approach is based upon the premise that some problems can result from the absence of or failure to apply existing cognitive-interpersonal skills. Emphasis is placed on the importance of the cognitive process of identifying, appraising, and resolving interpersonal problems. The training focuses on six skills: (1) recognition that a problem exists; (2) generation of alternative solutions to a problem; (3) appraisal of the likely consequences of different possible actions; (4) utilization of a logical, sequential process to reach a goal; (5) an understanding of the causal relationships in behavior; and (6) assessing the perspective of other people in a given situation (Platt & Husband, 1993). Spivack et al. (1976) also maintain that at successive stages of development, a different selection of ICPS skills becomes vital in promoting adjustment. This approach has been effective with a number of populations including drug users (Platt, Labate, & Wicks, 1977) and psychiatric patients (Platt, 1975; Platt & Spivack, 1972).

Related to ICPS is a similar approach known as Training in Personal Problem Solving (TIPS; Platt, Taube, Metzger, & Duome, 1988). This approach is targeted to drug-abusing populations and focuses on interpersonal problem-solving skills. The program consists of eight core sessions designed to remediate specific, empirically defined, cognitive-behavioral deficits. The eight core units essentially consist of the following: (1) problem recognition; (2) problem definition; (3) non-verbal communication skills; (4) verbal communication skills; (5) generating alternatives; (6) consequences; (7) assertiveness training; and (8) practice/
review/feedback. Preliminary evidence supporting this approach has been found
(Platt, Perry, & Metzger, 1980).

Another empirically-supported social problem-solving intervention with
personality-disordered offenders is called “Stop & Think” (McMurran, Fyffe,
et al., 2001; see also Chapter 11), which is based on the work of D’Zurilla and
Goldfried (1971).

One of the most widely used primary problem-solving interventions is known
as the Reasoning and Rehabilitation (R & R) program (Ross, Fabiano, & Ross, 1986).
This program involves problem-solving training and teaching cognitive skills
that are required for adequate social adjustment. In an evaluation of the
program’s effectiveness, 11 male mentally disordered offender patients were
provided with five months of treatment at two sessions per week. Results
indicate that the program was successful in bringing about an improvement in
problem-solving abilities and social adjustment.

Finally, another program with a problem-solving emphasis is known as
Vocational Problem-Solving Skills (VPSS; Metzger, Platt, Zanis, & Fureman, 1992).
VPSS is a cognitive-behavioral intervention designed to assist chronically unem-
ployed drug-treatment patients in the transition to work. The sessions were
designed to run approximately 30 to 60 minutes in length and to be delivered
within a maximum of a 12-week period. There are five objectives of the VPSS
intervention: (1) to help patients understand why they want to work; (2) to help
patients understand how to overcome current barriers to work; (3) to set realistic
vocational goals; (4) to identify realistic resources to help locate job opportunities;
and (5) to take appropriate actions to obtain work. Preliminary research examin-
ing this intervention has suggested that VPSS alone is not a strong independent
predictor of improved employment functioning, but improvements in employ-
ment functioning were detected at one of the two sites as a function of VPSS
training (Zanis, Coviello, Alterman, & Appling, 2001).

Social Problem Solving as a Component
of a Multi-Modal Intervention

Some widely studied psychotherapeutic interventions combine a problem-
solving skills component with other treatment modalities. Combinations have
typically included problem-solving with self-instructional or self-management
training, social skills training, and/or relapse prevention. Dialectical Behavior
Therapy (DBT; Linehan, 1993a, 1993b) is one example of such an approach. DBT
is an empirically-supported cognitive-behavioral approach that emphasizes skills
training to reduce self-destructive, impulsive, and aggressive behaviors. This
approach is based on the proposal that the core difficulty of these patients is one
of emotion dysregulation and that this dysregulation is exacerbated and main-
tained in part by being invalidated by others. This type of intervention focuses on
the application of skills and coaching in all aspects of treatment and attends to the
patient’s skills deficits as well as to motivational obstacles to skills use. This
approach has been widely studied and found to be effective in treating adult
women with Borderline Personality Disorder, as well as incarcerated juvenile
offenders evidencing emotional dysregulation (Trupin, Stewart, Beach, & Boesky, 2002).

Cognitive approaches that utilize components of a problem-solving intervention as a secondary emphasis have also been applied to the successful rehabilitation programs for prisoners (Ross et al., 1986), drinking and driving offenders (Bakker, Hudson, & Ward, 1997; Bakker, Ward, Cryer, & Hudson, 2000), personality-disordered offenders (Hughes, Hogue, Hollin, & Champion, 1997; Hurdle, 2001; McMurran et al., 1999), gambling (Sylvain, Ladouceur, & Boisvert, 1997), and problem drinkers (Chaney, O’Leary, & Marlatt, 1978; Hermalin et al., 1990).

FUTURE DIRECTIONS

Further explorations investigating the overlap between substance abuse, personality disorders, social problem-solving, and criminal behavior are warranted given the co-occurrence of these factors has been found to complicate treatment and that they have been linked to chronic criminality and mental health problems. While the links between these variables have been supported in the literature, further elucidation of the influence of social problem solving as a mediating factor and an investigation of the mechanisms of change is also warranted. For example, longitudinal studies would be informative. Investigations that identify possible problem-solving skill deficit profiles according to diagnoses are needed (McMurran, Fyffe, et al., 2001). Treatment dismantling studies examining the effectiveness of different approaches are also suggested. There is also a need for rigorous randomized clinical trials designed to help identify which treatment is effective in which particular combination of variables. Only when more comprehensive studies with methodologically solid designs are implemented and evaluated will progress be made.

The role of social problem solving has been documented in substance abuse, personality disorders, and criminal behavior; however, the majority of empirical studies have evaluated social problem-solving skill deficits based upon clients’ self-perception of their social problem-solving abilities. Two of the most widely used social problem-solving inventories are the Problem Solving Inventory Form (PSI; Heppner, 1988) and the Social Problem Solving Inventory-Revised (SPSI-R; D’Zurilla et al., 2002). Both instruments rely upon Likert-type self-ratings. An alternative social problem-solving measure that comes closer to evaluating problem-solving performance is known as the Means–End Problem Solving (MEPS) procedure (Spivack et al., 1976). However, limitations regarding poor reliability in rating responses have been noted (House & Scott, 1996). It may be more useful to develop performance-based observational methods to assess an individual’s actual real-life problem-solving skills as well as their thought processes, emotions, and behaviors. Carey and Carey (1990) also argue that because problem solving is a multidimensional construct, the development of different methods of assessment may potentially capture different aspects of the process that may be missed when relying upon self-report
accounts. Such methods, first, are thought to more accurately reflect how one actually behaves when confronted with specific situations; second, are less biased by one’s metacognitions, and, finally, allow for a process approach to exploring social cognition. Finally, other researchers have begun to focus on developing population and/or situation-specific measures of problem-solving (Chaney et al., 1978; Dreer, 2001; Patterson et al., 1988). Improving assessment instruments will help identify population-specific skill deficits to target for intervention.

Essentially, there is a dearth of empirical data to guide our understanding of personality disorders and social problem-solving abilities. Herrick and Elliott (2001) found Cluster A and Cluster C characteristics were associated with ineffective social problem-solving abilities (as measured by the PSI); no relations were found between Cluster B characteristics and problem-solving abilities. Intuitively, persons who have problems with symptoms associated with Cluster A or C would be more likely to give negative appraisals of their problem-solving abilities. In contrast, those with Cluster B characteristics may be more likely to misrepresent their skills, or be manipulative and exaggerate their abilities, depending upon their mood, level of stress, and immediate circumstances. These patterns have yet to be replicated in other research. Relevant studies have not taken into account personality-disorder characteristics, which could potentially elucidate discrepancies between observed and self-reported abilities, particularly among persons receiving treatment for substance abuse (e.g., Larson & Heppner, 1989). Continued improvement is needed in conceptualizing and identifying specific characteristics that may be implicated in treatment outcomes with dual-diagnosed populations. It should be emphasized that Herrick and Elliott (2001) found self-reported problem-solving abilities were better predictors of clinical outcomes and adherence among persons in a dual-diagnosis (primary Axis I or Axis II diagnosis [DSM-III-R; American Psychiatric Association, 1987] indicating a major behavioral disorder substance abuse/dependence problem and a coexisting Axis I or Axis II diagnosis) program; despite the limitations of self-report measurement, it appears that these tools can provide unique and enlightening information that have clear directives for therapy.

While advancements have been made to better understand and explain these complex relationships, continued work is required. Better understanding of the variables that best respond to particular interventions is critical, given that: (1) many comorbid conditions exist and manifest in mild to severe forms of pathology; and (2) regardless of the diagnostic categories and the type of substance abused, dually diagnosed persons have been found to have poor treatment responses (Brady et al., 1990). This overlap makes treating these problems quite a challenging task. Studies have shown that dually diagnosed persons do poorer than others on measures related to rehospitalization and treatment noncompliance (Drake & Wallach, 1989; McCarrick, Manderschied, & Bertolucci, 1985). While this may seem like a daunting task to undertake, future research is needed to design more appropriate and effective treatment interventions that are more likely to succeed and more successfully minimize problematic behaviors and relapse.
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