Special article

Motivation and the stages of change among individuals with severe mental illness and substance abuse disorders

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Abstract

A complicating factor affecting the treatment of individuals with coexisting substance use problems and serious mental illness is their motivation for change and how these interacting, chronic conditions affect the entire process of intentional behavior change. This selective review explores conceptual and assessment issues related to readiness to modify substance use and readiness to initiate behaviors helpful for managing mental illness in the search for a better understanding of patient motivation for change. The recent but limited research on motivation and stages of change among dually diagnosed patients indicates that these individuals appear to access and use an intentional behavior change process. However, it is not completely clear how this process works and what precise adaptations are needed to assess and to access motivation to change to encourage sustained behavior change in this population. Nevertheless, motivation and readiness to change are important dimensions that need to be addressed in treatment and research with dually diagnosed populations. © 2008 Elsevier Inc. All rights reserved.

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1. Introduction

Substance misuse by individuals with a chronic and serious mental illness (SMI) such as schizophrenia or bipolar disorder is a pervasive problem with studies showing that nearly 50% of all persons with SMI have met the criteria for a substance use disorder (SUD) in their lifetime (Barry, Fleming, & Greenley, 1995; Kessler et al., 1997; Mueser, Yarnold, & Bellack, 1992). Substance abuse and depend- ence in persons with SMI are especially detrimental because of the complex interactions between the two problems and the impact on treatment engagement and outcomes. For example, nonadherence with medication, symptom exacerbation, rehospitalization, poor social adjustment, and worse prognosis are a few of the adverse consequences associated with dually diagnosed patients (Drake, Mueser, Clark, & Wallach, 1996). Moreover, treatment of individuals with either or both of these disorders is often characterized by a lack of therapeutic engagement, problematic motivation for change, and relapse after some initial successful change (Blanchard, 2000; DiClemente, 2003; McGovern, Wrisley, & Drake, 2005; Mueser, Drake, Turner, & McGovern, 2006; Oncken & Blaine, 1990).

Multiple problems always complicate behavior change and necessitate complex and integrated treatment planning (DiClemente, 2003; McLellan, Lewis, O’Brien, & Kleber, 2000). Individuals with two or more diagnosable psychiatric conditions are often differentially motivated with regard to the two conditions. They may simply comply with services while hospitalized to resolve some acute problem only to avoid all treatment once discharged (Brady et al., 1996). However, the more severe the mental illness and the substance abuse problems are, the more dysfunctional thought processes, impaired decision-making skills, and the lack of insight diminish the ability to recognize the need for treatment as well as the individuals’ ability to seek and participate in it (Center for Substance Abuse Treatment [CSAT], 2005; Substance Abuse and Mental Health Services Administration, 1995). Motivating these individu-
als and engaging them in the process of behavior change are particularly challenging and not well understood.

Although motivation and readiness to change among substance-abusing individuals have been examined rather extensively over the past 20 years (Miller, 1985, 2006; Prochaska, DiClemente, & Norcross, 1992; Simpson & Joe, 1993), motivation and readiness to change among individuals with SMI and SUD have just recently begun to be explored (Carey, Maisto, Carey, & Purmine, 2001; Zeidonis & Trudeau, 1997; Zhang, Harmon, Werkner, & McCormick, 2004). Whether motivational considerations and indicators of readiness to change that are important dimensions of change among substance-abusing individuals can also be useful and applicable in a population of individuals with SMI and substance abuse disorders is an important question that needs to be answered.

This review describes conceptual and practical considerations regarding motivation for change among the more severely disabled of the dually diagnosed individuals, selectively reviews the growing number of studies examining applications and challenges related to assessing and intervening on patient motivation, and concludes with recommendations for incorporating motivational dimensions into research and treatment of individuals with co-occurring disorders to enhance engagement, adherence, and behavior change. Although any combination of substance use and mental illness complicates change, we will focus on issues and studies with relevance for individuals with SMI. In this article, substance abuse disorders will include both abuse and dependence because individuals with SMI often have patterns of drug use that, although disruptive and problematic, do not meet strict criteria for dependence. Recognizing that there are multiple other perspectives on motivation and behavior change, we will use constructs and considerations from the Trans-theoretical Model (TTM) of intentional behavior change and Motivational Interviewing (MI) to explore how motivation interacts with treatment and behavior change (DiClemente, 2003; Miller & Rollnick, 2002).

2. Defining motivation and readiness for change

Motivation refers to a central mechanism or constellation of mechanisms that lie at the heart of why and how people change addictive and health behaviors. Being motivated to perform a behavior is critical to an individual’s performance and whether or not a successful outcome is achieved (Bandura, 1986; Miller, 1985). Although there are different theories about motivation (Miller, 1985, 2006), the concept broadly includes an individual’s concerns about or interest in the need for change, his or her goals and intentions, the need to take responsibility and make a commitment to change, and sustaining the behavior change and having adequate incentives for change (DiClemente, Schlundt, & Gemmell, 2004; Miller & Rollnick, 2002; Vuchinich, 1999).

These multiple motivational tasks and the broader phenomenon of intentional behavior change have been described as the Stages of Change in the TTM of change developed by Prochaska and DiClemente (1984). Preaction stages focus on the tasks needed to prepare for taking action including creating concern, goals, intentions, plans, and commitment for engaging in a specific behavior change. They include precontemplation, contemplation, and preparation stages. Action-oriented stages focus on implementing the actual behavior change (quitting cocaine use, taking medication as prescribed) and include one stage that is related to behavior initiation (action) and one related to sustaining that change over time (maintenance). Stage-specific tasks need to be accomplished well enough to support forward movement toward the successful establishment of new behavior, and often, individuals need to recycle through the stages multiple times to accomplish this (DiClemente, 2003, 2005). The tasks of each of the stages play an important role in what has been described as motivation to change a behavior.

What does it take to move through these stages and accomplish the stage tasks? The activities and experiences that help individuals complete the tasks of the stages and progress through the stages are referred to as Processes of Change. These processes are viewed as the “engines” that help individuals complete the tasks of each stage and include both cognitive/experiential types of activities (i.e., consciousness raising, self reevaluation, environmental reevaluation, emotional arousal) and also behavioral activities and strategies (i.e., self-liberation, stimulus control, counter conditioning, contingency management, and helping relationships). These processes are relevant to the tasks in different stages and are needed to create the conditions necessary (a) to meet the task goals of each of the stages, (b) to move through the entire process of change, and, ultimately, (c) to achieve behavior change outcomes (DiClemente, 2003; Prochaska et al., 1992). In both cross-sectional and longitudinal studies, significant relationships among stages and processes of change have been found with a variety of addictive behaviors indicating a consistent and orderly relationship among individuals representing different motivational stages (DiClemente & Hughes, 1990; DiClemente & Prochaska, 1998; DiClemente et al., 1991). Although the labels of the processes are derived from theories of psychotherapy, the activities and experiences are familiar and used by both natural changers and those who attend treatment (DiClemente, 2006).

2.1. Relevance of motivation and the process of change to substance abuse and mental illness

Among substance-abusing individuals, motivation and intentions related to the modification of the addictive behavior play an important role in the recovery process. Findings from numerous studies demonstrate a positive relationship between motivation for treatment and motiva-
tion for change, assessed in multiple ways, and substance abuse treatment outcomes (DeLeon, Melnick, Kressel, & Jainchill, 1994; Simpson & Joe, 1993). Motivation to change substance abuse behavior has been associated with treatment engagement, quit attempts, reduction of alcohol consumption, treatment retention in cocaine users, sustained abstinence, and better treatment outcomes among individuals diagnosed with alcohol and cocaine dependence (Carbonari & DiClemente, 2000; CSAT, 1999; DiClemente et al., 1991; Joe, Simpson, & Broome, 1998; Project MATCH Research Group, 1997; Pantalon, Nich, Frankforter, & Carroll, 2002; Stotts, Schmitz, Rhoades, & Grabowski, 2001).

Motivational enhancement interventions have often produced improved outcomes compared with control conditions in a range of alcohol- and drug-abusing patients (Bien, Miller, & Tonigan, 1993; Miller & Rollnick, 2002; Stotts et al., 2001). Carroll and colleagues (2006), in a large, recent, multisite effectiveness study, found that integrating MI techniques into intake procedures increased retention but not short-term drug use outcomes. However, brief motivational interventions prior to treatment have not always improved treatment engagement and outcomes in populations of drug-abusing individuals who are poor, minority, and less educated with multiple problems (Donovan, Rosengren, Downey, Cox, & Sloan, 2001; Miller, Yahné & Tonigan, 2003).

As is true for most medical and mental health problems, motivation is also considered an important dimension in the treatment of SMI. Adherence to medication regimens, engagement and participation in medical and psychosocial treatments, and use of recommended remediation coping strategies are problematic for many individuals and even more challenging for those with SMI conditions. Moreover, problems with adherence in psychiatric treatment are exacerbated by the presence of substance abuse disorders and significant problems in other areas of functioning (Drake, Brunette, Mueser, & Green, 2005; Mueser et al., 2006). Adherence to medical treatments requires an understanding of the adherence burden, specification of the behavior change targets, and appreciation of the process of change. Engaging patient motivation is an integral part of resolving the adherence problems (DiClemente, Ferentz, & Velasquez, 2004).

Similar to the findings in substance abuse, motivational techniques based on MI principles have been viewed as promising in a systematic literature review of interventions for improving medication adherence and as superior to more traditional psychoeducational approaches (Zygmont, Olfson, Boyer, & Mechanic, 2002). Swanson, Pantalon, and Cohen (1999) found that adding MI techniques to initial assessment increased the proportion of patients attending outpatient appointments overall and for a dually diagnosed group of patients. Others have found that MI and personalized feedback increased tobacco treatment engagement and attendance for individuals with SMI (Steinberg, Ziedonis, Krejci, & Brandon, 2004). In a pilot study, Daley, Salloum, Zuckoff, Kirisce, and Thase (1998) found a motivational-intervention-increased attendance and engagement and decreased rehospitalization among patients with depressive disorders and cocaine dependence.

2.2. Understanding the process of change with co-occurring disorders

Despite the importance of motivation and indications of its relevance for treatment among substance-abusing individuals and individuals with SMI, how motivation and the process of change work with dually diagnosed individuals is still in question. Motivation, according to the TTM perspective, requires individuals to engage in enough cognitive/experiential activities to move through early stages and to engage in behavioral activities to initiate and sustain the change. This is an arduous and rather cognitively complex process. Although studies have demonstrated that the dimensions of the TTM appear to be relevant for changes in substance use among subgroups of smokers, drinkers, and illicit drug users, as well as with various health behaviors, there are questions and concerns about how the process of intentional behavior change and these variables operate in those with SMI and those with co-occurring disorders (Bellack & DiClemente, 1999; Mueser et al., 2006). The questions include whether these dually diagnosed individuals can access the intentional process of change and make use of decision making, intentionality, commitment, planning, and experiential and behavioral processes of change when they make changes in their substance-abusing or adherence behaviors. Other questions concern whether, or rather how extensively, any cognitive impairment among individuals with SMI interferes with making decisions or undermines accurate self-evaluations (e.g., self-efficacy and ability to plan). Many people with SMI have cognitive impairments that interfere with the ability to develop and sustain a focus on reasonable goals. Similarly, the neurobiological aspects of illness frequently impact on motivation (e.g., avolition) and drive (e.g., anergia). Some professionals have indicated that the behavior change process among individuals with SMI and those with co-occurring disorders may be more driven by external considerations or reinforcers, seems less intentional, and appears more chaotic than the process among individuals without these problems (Bellack & DiClemente, 1999). Finally, there also are concerns about whether we can accurately assess motivation for change in dually diagnosed individuals, as well as whether the construct of motivation operates in the same manner as it does with substance-abusing individuals who do not have a co-occurring SMI.

Similar questions have arisen about MI, which was developed as a set of brief intervention strategies geared to engaging individuals in earlier stages of change in the type of cognitive and experiential activities that would promote preparedness for change and accomplishment of preaction
stage of change tasks (Connors, Donovan, & DiClemente, 2001; Miller & Rollnick, 2002). In his review of the MI intervention literature, Heather (2005) argues that motivation is not all that clients need and that there may be differences in the adequacy and effectiveness of these motivational techniques depending on the severity of substance dependence and the presence of co-occurring disorders.

3. Measuring motivation and the change process in co-occurring populations

Any questions regarding the role of motivation in co-occurring populations can only be addressed if we are able to measure motivation accurately and validly. Because individuals with SMI and drug use disorders are disadvantaged in social and cognitive areas, assessing motivation and its role in behavior change is a challenge. For instance, we know that the cognitive impairments that individuals with schizophrenia (without SUD) possess make it difficult for them to benefit from rehabilitation programs (Bellack, Gold, & Buchanan, 1999; Silverstein, Schenkel, Valone, & Nuernberger, 1998). There have been questions as to whether those same cognitive impairments (e.g., perception, attention, memory, and reasoning deficits) and the psychotic symptoms that can accompany schizophrenia impact the way these individuals go about changing their drug use behavior. The ability to accurately self-report intentions to change a behavior may be compromised by the problems in self-awareness and abstract thinking that often accompany an SMI. Even if motivational capacities are intact and operational, there is a question as to whether motivation to change can be accurately measured in a dually diagnosed population using readiness-to-change assessments that are used with populations of substance-abusing individuals without SMI (Carey, Purnine, Maisto, Carey, & Barnes, 1999; Project MATCH Research Group, 1997, 1998). In addition, the negative symptoms associated with schizophrenia could make readiness-to-change measures difficult to use because these individuals may be unable to exert the thought and effort required to validly complete these instruments (Carey et al., 2001). Further, many people with SMI have problems reading and comprehending the types of abstract questions found on many motivation measures.

Although a number of studies have looked at the usefulness of readiness-to-change scales among substance-abusing populations (Carey et al., 1999), evidence for the utility of one or more of these measures among dually diagnosed patients is supportive but currently limited. There are many ways to evaluate motivation and assess the stage status of patients entering treatments. These tools range from a readiness ruler (e.g., on a scale of 1 to 10, how ready are you to change this behavior [quit smoking, stop using illegal drugs?]), to a series of questions that can be used as an algorithm to assign stage, to more complex multiple-subscale measures (DiClemente et al., 2004). More extensive measures of motivation, like the University of Rhode Island Change Assessment (URICA) and the Stage of Change, Readiness, and Treatment Eagerness Scale (SOC-RATES), have been used most often with alcohol- and drug-abusing individuals because they are sensitive to various types of attitudes and intentions and less vulnerable to social desirability or simple denial of a problem. However, these types of measures are lengthy, complex, and rely on self-report. The general concern that individuals with SMI cannot accurately evaluate motivation is heightened when cognitive and complex measures are used.

3.1. Evidence of validity and utility of motivational measures

Several studies have used various measures to assess motivation to modify substance use and found initial support for their validity and utility, with some exceptions. Velasquez, Carbonari, and DiClemente (1999) assessed the central constructs in the process of change model among alcohol-dependent individuals with major depressive disorder, schizophrenia, or bipolar disorder. They found acceptable internal consistency (z coefficients) for the decisional balance scales (i.e., pros, z = .90; cons, z = .91) and for the URICA overall readiness to change score (z = .91). Psychiatric severity was predictive of increases in reported temptation to drink and of reduced incidences of behavioral coping. In addition, higher scores on psychiatric distress were related to the endorsement of greater importance on the “cons” (i.e., negative aspects) of drinking alcohol and greater endorsement of items in the URICA Maintenance Striving scale, suggesting that they were engaging in a struggle to maintain sobriety. Overall, the way participants answered change measures regarding their drinking problem was similar to patterns found in samples of people with alcohol problems who did not have a co-occurring SMI.

Another study examined decision making using an alcohol decisional balance measure in a sample of individuals dually diagnosed with schizophrenia and alcohol abuse and also found similarities between this sample and samples of substance-abusing populations without SMI. Hagedorn (2000) specifically investigated the use of the alcohol decisional balance scale (DBS) and added items specific to individuals with SMI (e.g., medication effectiveness, hospitalizations) to determine whether this population considered different pros and cons when changing their drinking as compared with alcohol-abusing individuals without SMI. Results showed that although there were some unique considerations, the essentials of the decision-making measure were similar in relationship and structure to measures that have been used with substance-abusing samples without SMI (DiClemente, 2003; Hagedorn, 2000).

A more recent study (DiClemente, Nidecker, & Bellack, unpublished manuscript) investigated five TTM measures that have been found to be reliable and valid in populations...
with SUD and evaluated them for their psychometric properties with a sample of 241 psychiatric outpatients. Participants met Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (DSM-IV) criteria for either a schizophrenia spectrum disorder or a nonpsychotic affective disorder, along with criteria for either cocaine dependence or remission. The measures used to assess stage and processes of change were shortened versions of originals and focused on illicit drug use. All measures were designed to be read on a sixth-grade reading level and were read aloud to participants to ease comprehension of the scales. Specific TTM measures used were the URICA to assess readiness to change, the DBS to evaluate perceived pros and cons of cocaine use, the Processes of Change scale to identify behavioral and cognitive change processes, and the Temptation to Use and Abstinence Self-efficacy scales to measure temptation to use and confidence to abstain from cocaine use. Each measure was found to have good reliability and validity within the total sample. When the group with schizophrenia and the group with affective disorder were analyzed separately, all measures except for the URICA remained psychometrically sound. The URICA showed some problematic stability in the group with affective disorder, perhaps due to specific cognitive limitations common with this diagnosis (e.g., difficulty concentrating, making decisions). However, the data from patients with schizophrenia paralleled findings on the various change variables for modifying cocaine abuse in other drug-abusing patients both in terms of the psychometric properties and the expected pattern of relationships across the remitted and dependent subgroups. Although their neurocognitive deficits may interfere with some higher order cognitive functions and modulate the intentional change process, this study suggests that patients with schizophrenia appear to be accessing and using this process in their efforts to modify cocaine use.

Some studies have employed simpler assessment tools in an attempt to measure motivation more efficiently. For example, the short, five-question algorithm often used to assess readiness to change among smokers (DiClemente et al., 2004) is rarely used to examine those with SMI trying to change their drug use behavior. However, one study showed that this brief algorithm was a reliable measure of stage of change regarding substance abuse among individuals with schizophrenia, major depression, or bipolar disorder (Carey, Purnine, Maisto, Carey, & Barnes, 2002). There was demonstrated reliability with 75% agreement between endorsed stages over a 1-week period. Another study using the stages of change algorithm examined the motivation for smoking cessation of smokers with schizophrenia or schizoaffective disorder, demonstrating similar proportions in precontemplation, contemplation, and preparation stages of change as in the general population, with a similar percentage making a quit attempt in the past year (Etter, Mohr, Garin, & Etter, 2004). The brevity of the algorithm makes it useful for retesting and appropriate for populations with SMI who may have limited cognitive resources, although it is more vulnerable to desirability and dissimulation. Similarly, a single-item rating scale, such as the one used in studies of smoking (Abrams, Herzog, Emmons, & Linnan, 2000; Biener & Abrams, 1991) and gambling (Pietrzak & Petry, 2005), may be appropriate to use when assessing motivation to change among people with co-occurring disorders. These rating scales typically ask how ready a person is to change this behavior (using illegal drugs, drinking, smoking, etc.), on a 10-point Likert scale. They are short, easy to understand, and convenient for use and have been found to relate to other measures of stage status.

Clark, Wells, Peterson, Jackson, and Stanton (2006) and Wells, Calsyn, Clark, and Jackson (1998) moved beyond the purely verbal self-report and developed a cartoon stage assessment to be used with individuals with reading or cognitive deficits. It includes a series of four-panel cartoons depicting different attitudes or intentions about using substances. The scale includes pictures of a character (neutral in gender and ethnicity) participating in either illicit drug use behaviors or abstaining behaviors. The subject’s task is simply to indicate whether each panel is like them now or not like them now and which one is most like them. There are three cartoons for each of the four stages of change, permitting calculation of stage of change scores and a continuous readiness to change score analogous to the URICA. Several recently completed studies have used both the more extensive URICA and the cartoon assessment. Kinnaman, Bellack, Brown, and Yang (in press) compared the Wells instrument and the URICA in a large sample of people with schizophrenia who met DSM-IV criteria for current cocaine dependence or dependence in remission. The two instruments were positively but only modestly correlated ($r = .25$) on the overall readiness scores. In this study, the cartoon measure was more highly related to current drug use and treatment participation than the URICA. The URICA did not prove to be highly valid in this study despite the fact that it was simplified to make it more comprehensible and less abstract for subjects. Similarly, Bellack, Bennett, Gearon, Brown, and Yang (2006) explored URICA scores in a treatment effectiveness trial for patients with drug dependence and SMI and did not find that baseline scores were highly predictive of treatment participation, attrition, or outcomes. In the study previously described, which compared cocaine-dependent and remitted individuals with schizophrenia or affective disorders, the two measures (URICA and cartoon assessment) were also modestly correlated ($r = .19$), with the cartoon assessment more related to action markers like temptation and abstinence efficacy and the URICA more related to preaction stage variables like the cons of drinking.

Finally, it may be difficult to obtain consensus on stage status between provider and patient assessments. Addington, el-Guebaly, Duchak, and Hodgins (1999) investigated readiness-to-change measures among 39 substance-abusing individuals with schizophrenia.
individuals with schizophrenia. There was little correspondence between subject’s stage of change (as defined by clinician and chart data along with an algorithm) and stage defined by two measures: the SOCRATES (Miller & Tonigan, 1996) and the Readiness to Change Questionnaire (Rollnick, Heather, Gold, & Hall, 1992). However, the small sample size and questionable stage assignments used in this study make the findings difficult to interpret.

In summary, although sometimes difficult to measure in the co-occurring populations, research to date has demonstrated that motivation (a) can be measured with a variety of instruments, (b) seems to relate to other process of change measures in a similar way as it does with substance-abusing individuals who are not dually diagnosed, and (c) measures a patient characteristic that seems related to engagement in change. However, current studies are limited and inadequate to determine a single optimal measure. The support for the internal validity of the measures is stronger than the support for the external validity. In particular, there are conflicting data about the utility of more complex measures. Future studies should consider using more brief and simple means of assessing readiness and motivation to change, as well as more extensive ones to determine which type of measures has greater utility in the dually diagnosed population. Assessment of motivation should also consider the level of impairment and the goals of the clinician or researcher.

3.2. How motivation affects change and treatment with dually diagnosed individuals

In addition to the psychometric evaluations of the measures of motivation, a number of studies have examined how motivation interacts with endorsement of various process measures identified in the TTM and markers of change like decision making and self-efficacy, as well as treatment engagement and outcomes in patients with co-occurring substance abuse and psychological disorders. In a number of studies, greater motivation is associated with positive indicators of change. Carey et al. (1999) found that dually diagnosed individuals with high motivational readiness to change substance use reported more cons and fewer benefits to using substances, reported more substance abuse problems, took more steps toward changing their behavior, and used substances less than individuals who had lower motivational readiness to change. Likewise, Ries and Ellingson (1990) demonstrated that dually diagnosed individuals with high motivation had a higher rate of drug abstinence when compared to those with low motivation. Finally, a study examining 390 individuals with co-occurring alcohol abuse problems and SMI also found that motivation, measured by the SOCRATES (Miller & Tonigan, 1996), predicted future alcohol use. Specifically, the more ambivalent patients were about their alcohol use, the more alcohol they consumed at a 9-month follow-up (Zhang et al., 2004).

Other investigators have examined relationships between the stages and processes of change throughout the course of treatment in individuals with co-occurring disorders. Finnell (2003) found differences in some TTM dimensions between people with coexisting SMI and drug use disorders in comparison to other drug-abusing populations. Specifically, dually diagnosed individuals appeared to be using more behavioral processes in the action stage and more experiential than behavioral processes in maintenance, in contrast to other populations where experiential processes are more highly endorsed in earlier stages (i.e., contemplation and preparation) and where behavioral processes are endorsed in later stages (i.e., action and maintenance; DiClemente, et al., 1991). She speculated that this difference may be a result of the need to continue to use cognitive/experiential processes when symptoms heighten even after they reach sobriety.

However, there have been some studies that found unexpected relationships between motivation and treatment attendance. Pantalon and Swanson (2003) found that dually diagnosed individuals with high motivational readiness to change as measured by a URICA readiness composite score attended fewer clinic appointments than those with low motivational readiness. However, this sample included individuals with a variety of diagnoses, and participants were not limited to a single problem in responding to the motivation measure; therefore, they could be responding to the psychiatric disorder, the substance use problem, or both. In another study looking at dually diagnosed individuals with schizophrenia and SUDs, higher rates of seeking treatment were associated with low motivation based on a five-item “stage of change algorithm” (Zeidonis & Trudeau, 1997). As indicated above, Bellack et al. (2006) found that motivation to change at baseline did not appear to predict either attendance or survival in treatment. These findings contradict what we would normally expect the impact of motivation on treatment adherence to be, and it is not clear whether these findings are related to problematic assessment or represent findings that indicate that motivation operates differently.

3.3. Multiple behavior change targets complicate assessing and managing patient motivation

Motivation and the change process are behavior specific. Therefore, it is critical to be clear about the specific behavior change being considered or sought. Understanding what would constitute action in the action stage is critical. Is it taking medication daily, reducing drinking, stopping cocaine use, or no longer sharing needles? For example, substance users can be motivated to reduce the amount of consumption (e.g., reduce alcohol intake) or to abstain completely (e.g., alcohol abstinence). Individuals can be motivated to comply with one of a provider’s suggested actions (e.g., taking medications) but not with another (e.g., attending group). Motivation to change one behavior does not necessarily imply motivation to change a
second even if both are substances of abuse. For example, when alcohol-dependent individuals quit drinking, they often do not quit smoking. Heroin-addicted individuals may stop the opiate addiction but do not necessarily stop drinking, smoking, or using other drugs such as marijuana. It is critical to understand motivation in terms of the specific behavior that is the target of change and to understand that there may be many different behaviors that individuals need and want to change (DiClemente, 2003; Heesch, Velasquez, & von Sternberg, 2005; King, Marcus, Pinto, Emmons, & Abrams, 1996).

Individuals motivated to go on methadone are not necessarily motivated to quit drinking or stop smoking (Haug, Svikis, & DiClemente, 2004; Stotts, Schmitz, & Grabowski, 2003). As Brady et al. (1996) noted, assuming that a person with multiple problems is in a single stage of change for each problem is presumptuous and often erroneous. One criticism of the URICA is that the “problem” referred to in the measure is not specified. For instance, in a study by Pantalon et al. (2002), participants with coexisting cocaine and alcohol problems completed the URICA based on their motivation to change both behaviors. Although the URICA was found to be useful for this population, the results may have been stronger if both addictions were considered separately in terms of motivation and the change processes. Thus, it is not surprising, and may even be normative, that a client can be at two different stages simultaneously in regard to his or her SUD and mental illness. Viewing these two client problems as separate but having parallel treatment needs and understanding that both are undergoing their own process of change are crucial in the effective treatment of dually diagnosed patients (Brady et al., 1996; DiClemente, 2003).

In addition to the two central problems identified by the term dual diagnosis, these patients often have multiple other problems. The entire process of change and progressing through the stages for any single, specific behavior can be helped or hindered by the presence of associated difficulties and disorders. Contextual problems often surround and complicate an attempt to change any behavior (DiClemente, 2003; McLellan et al., 2000). Motivation for changing substance abuse behavior waxes and wanes when problems in one of the contextual areas (e.g., living situation, depression, relationship problems) arise. Contextual problems may exist in the areas of problematic beliefs and attitudes, troubled interpersonal relationships, complications in various social systems (legal, employment), and interpersonal conflicts and deficits (DiClemente, 2003; McLellan et al., 2000; Prochaska & DiClemente, 1984; Ziedonis et al., 2005). Multiple problems complicate completion of change tasks for any single target problem or proposed change. The argument for integrated treatment, aggressive case management, and offering multiple resources simultaneously in treating individuals with multiple problems should be as much about motivation and completing the stage tasks for the target behaviors as it is about resolving additional problems. Although clinicians have recognized this interaction for a long time, understanding how multiple problems interfere with motivation and the process of changing behaviors can increase our ability to understand and intervene with multiple behavior change targets.

It is also possible to assess multiple problem areas separately to determine motivation to change in individuals with co-occurring disorders. For example, a study that compared 132 individuals with both a psychiatric and alcohol disorder on the URICA-Alcohol and a separate Readiness for Mental Health Treatment measure found that these patients did indeed have separate levels of motivation for mental health and alcohol abuse treatment (Heesch et al., 2005). Motivation for change and motivation for treatment are not identical even for problematic drinking (Freyer et al., 2005). Identifying the motivational level for each problem behavior, varying levels of goals, and determining whether the motivation is for change or for seeking help in tailoring interventions to specific patient needs.

4. Integrating motivation into adherence and treatment programs

Most of the innovative and integrative treatments for the dually diagnosed population contain motivational enhancement components like MI strategies and the use of behavioral strategies that increase engagement and adherence (Barrowclough, et al., 2001; Bellack et al., 2006; Carey, 1996; Martinot, Carroll, Kostas, Perkins, & Roussaville, 2002). This integrative approach is mirrored in the efforts of researchers and clinicians to combine treatment approaches and strategies by blending motivational, cognitive–behavioral, and family-based psychosocial approaches with pharmacotherapy (Miller, 2004; Ziedonis et al., 2005). A few researchers are beginning to use approaches tailored to participants’ stage of change and motivations for drug use and are finding some success (James et al., 2004).

MI and current cognitive–behavioral approaches are more patient centered and begin with patient engagement by focusing on their concerns. These approaches emphasize collaborative goal setting that recognizes harm reduction and small steps in reaching larger goals. The style and substance of the patient–provider interaction include recognition of personal concerns, values and considerations, lack of confrontation and excessive pressure, creating personalized planning, finding and providing reinforcers that can support the accomplishment of the various tasks of the treatment stages of change, providing structure and constructive monitoring of the goals and behaviors, and building skills that are needed to complete the tasks of change. Although there are still too few studies that examine and support each of these components to make any firm conclusions, there is growing support and consensus for the combination of approaches and the need for integrating treatments (Mueser, Noordsy, Drake, & Fox. 2003) and for
incorporating motivation enhancement as a part of the package (Carey, Carey, Maisto, & Purnine, 2002; Drake et al., 2001; Martino, Carroll, Nich, & Rounsaville, 2006).

4.1. Implications for treatment of co-occurring disorders

The challenge of motivation and change in the population of individuals with co-occurring disorders offers an opportunity (a) to evaluate practitioner beliefs and assumptions, (b) to incorporate motivation more completely into integrated treatment and decisions about level of care, (c) to determine level of support needed to promote change, and (d) to consider more proactive approaches to the treatment of co-occurring disorders. Although we have focused on co-occurring disorders in individuals with SMI, these considerations appear to be as relevant for individuals with non-SMI conditions as well because the interactions between substance abuse and less severe mental illness can be as problematic and interactive. Although the severity of mental illness may appear less in individuals without SMI, substance use and mental illness may be more closely connected in terms of self-medication; thus, interactions with motivation can be as complex.

Many mental health and substance abuse providers have views about motivation and the dually diagnosed population that can interfere with coherent and integrated treatment. Each type of provider underestimates, at times, the capacity of these individuals to engage in an intentional change process or respond to motivational and cognitive–behavioral strategies. Often, they resort to medication regimens that are poorly monitored and where adherence is inconsistent. In addition, they use weak forms of education and social support to manage substance abuse problems and mental illness. Because both of these disorders tend to be chronic, and relapse can be complicated by multiple contextual problems, there is significant discouragement that can fuel dropout on the part of the patient and burnout on the part of the provider. Motivational considerations are central to the problem and to the solution.

Although there is a growing recognition of the need for multidimensional treatment to address both SMI and SUD, as well as a push for integrated treatment to combat the negative interactions among the multiple, simultaneously presenting problems, there is still an incomplete understanding of the implications of these conditions on motivation and the process of change. However, it is clear that motivation related to either problem area will significantly impact engagement, participation, adherence, and outcomes of patients in either mental health or substance abuse settings. In both settings, motivation should be an important part of treatment planning and case management to maximize effectiveness and efficiency of treatment recommendations. Clearly understanding the motivational dimensions for both problems is critical because the appropriate level of care cannot be well ascertained without some consideration of motivation. Whether someone can benefit from outpatient treatment or needs residential care should not simply be a decision related to the severity of the problems or to the setting where the patient is first seen; it should be related to the motivation of that individual with regard to the various problems as well. Individuals in the precontemplation stage for a cocaine abuse problem, who are trying to adhere to medication for schizophrenia, may need some structured residential support and a respite from the streets to stabilize medication adherence and work on motivational tasks related to the cocaine use. Similarly, individuals in the preparation stage for changing drug use but in the precontemplation stage for medication compliance for their bipolar condition need assistance to understand the benefits of medication adherence as part of their plan to stop using drugs. The change processes as well as the problems related to the two conditions interact.

Amount of structure and use of behavioral reinforcement also vary depending on the level of motivation and stage status of the individual. For example, less motivated individuals might benefit more from a structured behavioral program that provides clear subgoals and rewards participation and engagement. This type of program might be less important for individuals with more motivation and skills, who are further along in the change process either for managing the mental illness or for modifying substance abuse behavior. Reinforcements can and have been used successfully in shaping and influencing certain behaviors related to treatment attendance and adherence, as well as in assisting to promote behavior changes that can influence the change process (Bellack et al., 2006). Accepting partial or harm reduction goals while promoting more stable and complete solutions for recovery can also provide incentives to promote change. Mandated treatment also offers an interesting challenge for incorporating motivation in these treatments and offers an opportunity to engage an otherwise elusive patient by shifting motivation from more extrinsic considerations to more intrinsic ones (DiClemente, 2003). Similar issues arise with the use of contingency management in drug abuse treatment where the challenge is to engage natural, intrinsic motivation as the contingencies are phased out. Integrating motivational and behavioral approaches is an exciting new area for research and programmatic development.

Clearly, less motivated individuals need more proactive and intense interventions. Case managers have to be more active to prevent less motivated individuals with SMI and SUD from falling through the cracks in the mental health care system. There are some very innovative proactive programs reaching out to homeless, drug-abusing individuals with SMI where treatment providers go onto the streets and begin discussions on behavior change using MI principles (Fisk, Rakfield, & McCormack, 2006). Although not always controlled trials, the engagement of some of these clients into treatment and movement into stable housing supports the notion of being proactive in engaging the less motivated patients.
5. Conclusions

Motivation, understood as engaging patients in an intentional process of change and completing the various tasks outlined by the Stages of Change, is an important mechanism that must be incorporated into the treatment of those individuals with co-occurring disorders. Substance-abusing individuals with mental illness and mentally ill individuals with substance abuse problems have attitudes, opinions, beliefs, and intentions that are integral, but often detrimental, to making and adhering to behavior changes. They can have problems with commitment and planning as well as with implementation and revision of those plans. In addition, they can have significant problems sustaining behavior changes over long time periods. However, their difficulties in these areas are not very different from those of substance-abusing individuals and other individuals with chronic conditions who do not have a mental illness diagnosis. That does not mean that they are the same as someone with hypertension and diabetes or someone with cocaine dependence and cancer. Nor does it mean that they have the same resources and capacities to manage the tasks of the process of change as do individuals who have more support for changing behaviors.

We need to continue to explore how to assess, access, and influence the intentional process of change with dually diagnosed individuals. It is evident that this population may need adaptation of motivational measures and additional support throughout the change process. They may benefit from external reinforcers to enhance internal processing, the use of less cognitively complex assessment and treatment approaches, and/or stabilizing medications and skills development to help them access the process of change. However, a better understanding of motivation and the process of change and how they interact with the management of and recovery from substance abuse and mental illness can empower case managers, clinicians, providers, and patients to address the questions of how to change these complex, interacting, and complicated conditions.

References


