Addiction, Employment & The Return to Work

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Abstract

The relationship between problematic psychoactive substance use and the employment is complex; while substance use may negatively impact labor market outcomes, including the return to work or maintaining a job, employment may also impact substance use behavior, either positively or negatively. Factors that influence the return to work of people who use psychoactive substances problematically occur at the micro, meso and macro levels. Because of this complexity, and because the return to work and professional support for individual vocational goals occurs at the individual level, interventions to promote the return to work or staying at work are best positioned within a broader framework of treatment for substance use disorders. Such a framework may be either abstinence or non-abstinence focused, but will ideally include consideration across the biological, psychological, social, environmental and spiritual domains, and will be structured within a larger rehabilitative process. The overarching goal of any occupational or vocational rehabilitative process should be improved functionality, based on individual capacity, motivation and opportunity.

1.1 Introduction

The use of psychoactive substances, from caffeine to opium, is and has always been a global phenomenon (Gossop 2007; Jay 2010). Each psychoactive substance (i.e., including legal substances such as alcohol) carries with it specific properties and effects (Nutt et al. 2007; 2010), and as such, its own impact on individual, social, economic, environmental and health-related harm (Adlaf et al. 2005; Chisholm et al. 2006; Degenhardt and Hall 2012). To understand this

harm, it is crucial to also recognize that "drug abuse is related to housing is related to health care is related to joblessness is related to poverty" (Shavelson 2001). That is, labour market outcomes are heavily implicated in social, economic and health-related processes associated with substance use. Negative labor market outcomes such as absenteeism, suboptimal job performance and joblessness can result from both licit and illicit substance use. Similarly, labor market participation can impact psychoactive substance use in both positive and negative ways.

The challenges of returning to work or staying at work for individuals suffering from addiction or engaging in problematic substance use share a number of common features with those associated with other illnesses, such as impairment or decreased functionality (Frone 2006a 2006b). However, addiction, as a chronic, relapsing brain disorder characterized by compulsive drug seeking and use (Leshner 1997), presents a unique set of challenges for vocational outcomes. It is also embedded within social, physical, economic, and policy contexts (Rhodes 2002; 2009), and the most effective return to work and stay at work strategies may therefore include biological, behavioral, and contextual components.

There are a myriad of models used to guide support for people with employment goals who have substance use issues. The nature of the relationship between client, job (employer) and counselor (either supported by or outside of employment) often defines the scope of work. As a result of the varied practice of substance use vocational rehabilitation, this chapter explores the broader concept of recovery and goal attainment for people with substance use issues in vocational context. It provides an overview of the relationship between drug use and employment, identifies key issues at play in this relationship, and outlines various approaches in facilitating positive labor market outcomes among those who use psychoactive substances problematically. For purposes of readability, for the remainder of the chapter, substance use refers to the use of any psychoactive substance, legal or illegal, unless otherwise specified.

1.2 Conceptualizing Work in the Context of Substance Use Disorders

Addiction – as a chronic, relapsing brain disorder (WHO 2004) – has various implications for labor market participation. Importantly, prolonged drug use produces observable changes to the structure and function of the brain that impact judgment and decision making. The direct or indirect impact that psychoactive substances have on the dopamine pathways of the brain, for example, affects different functions including movement, motivation, and reward. Serotonin and glutamate neurotransmitter systems are also among those affected by drug use. These systems crucially influence mood, sleep, learning and memory (National Institutes on Drug Abuse 2008). As a result, drug use may hamper an individual's ability to seek, obtain and maintain vocational activity that relies on the functioning of these pathways. Capacities to decrease or cease negative substance use behavior may, as a result of these impacts, be seriously compromised. Expecting someone to "just say no" or "go get a job" is therefore an oversimplified and in many cases unrealistic demand that may be incompatible with the real and consequential changes on the structure and functioning of the brain that result from ongoing use. The impacts of these physiological changes on the vocational outcomes of drug users can be and often are adverse.

While the most intuitive association between drug use and employment points to the impact of drug use on labor market outcomes, the relationship between the two is complex and may also go the other way. Here, the relationship between vocational outcomes and substance use is conceptualized by viewing work as a potentially important determinant of health among drug users. It is well known that over and above individual health behavior, a range of social and economic factors critically influence individual health outcomes and health inequalities in the general population (Marmor et al. 1994; Marmot et al. 2008). Employment is one of the most widely acknowledged social determinants of health and well-being among the general population (Bambra 2011). Research on the relationship between work and health examines how socio-

economic status, labor market outcomes and unemployment map on to systematic variation in individual health outcomes (Adler and Ostrove 1999; Bartley et al. 2006). This relationship is multidimensional and complex (Cutler et al. 2008; Lahelma et al. 2004). Sociological and social-psychological literature on employment further points a range of non-material benefits from employment that positively influence health and well-being (Jahoda 1982; Warr 1994). Psychosocial factors identified in this literature, such as time structure, stress and positive social interactions in the workplace (Nyberg et al. 2009) are important mechanisms linking work and individual outcomes (Cutler et al. 2008; Matthews et al. 2010). Labor market outcomes as social determinants of health among drug users may not be limited to the material benefits of licit income generation, but may also be connected to features and characteristics of the experience of employment, which also influence patterns of drug use in positive and negative ways.

Given that the relationship between drug use and employment may be bi-directional, with drug use potentially impacting labor market outcomes and the experience of work likewise impacting substance use patterns, approaching addictions in the context of the return to work framework necessitates an acknowledgement that both are situated within and interdependent on broader relationships. Substance use disorders relate to a complex interaction between the biological, psychological, social, environmental and spiritual aspects of a person's life. Changes to one of these areas may cause changes to the other areas, and subsequently to patterns of drug use and related behavior. In particular, co-occurring mental illness, exposure to high levels of stress or traumatic events may greatly influence the initiation or intensification of use (Brown and Wolfe 1994; Clark et al. 2001; RachBeisel et al. 1999).

Because of the complexity of those factors that influence drug use, addiction treatment may be crucially important to improving drug use as well as labor market participation. However, no single treatment, counseling or rehabilitation approach is appropriate or will be successful for

all individuals. Success, goal attainment, and, ultimately, recovery often involve progress made in processes related to many areas of a person's life, not just a change in substance use.

1.3 Facts & Figures

The following section outlines the prevalence of substance use, magnitude of some health-related harm attributed to substance use, and economic costs of substance use from a vocational perspective. The use, harm and cost patterns described below emphasize how the toll from substance use has a significant and substantial vocational dimension.

In 2005, global alcohol consumption was estimated at 6.13 litres of pure alcohol per capita annually, although there is considerable regional variation, with this figure estimated to be 12.18 liters per capita in Europe, 2.20 in Southeast Asia and 8.67 in the Americas (WHO 2011). The United Nations Office on Drug and Crime (UNODC) estimates that, in 2009, between 149 and 272 million people, or 3.3% to 6.1% of global population aged 15-64, used illicit substances at least once in the previous year (UNODC 2012). Substance use is pervasive across geographic region and cultures, and undertaken by a significant proportion of the global population.

Individuals experience both benefits and harm from the substance use described above, though vocational and policy perspectives often focus on substance-related harm. These harms include, in the case of alcohol, disability resulting from accidents, chronic health consequences (e.g., cancer and cardiovascular disease) and alcohol-related disability (Rehm et al. 2003), all of which have consequences for vocational participation. In 2000, alcohol use was estimated to have been responsible for 3.8% of global mortality and 4.6% of the global disability-adjusted life years (DALYs), or the number of years of life lost to premature mortality or disability (Rehm et al. 2009). The similar cost of substance-attributable morbidity and mortality for illegal drugs has

been estimated at 20 million DALYs in 2010, or 0.8% of global all-cause DALYs in 2000 at 0.4% of total global mortality (Degenhardt et al. 2013).

Substance use occurs among people from all socio-demographic and cultural backgrounds (Devereux 2008; Jay 2010) and across the socio-economic spectrum (Pierce 1999; Reuter et al. 1990). Research indicates that most people who use both legal and illegal substances are employed. For example, in the US, of the 20.2 million current illicit drug users aged 18 or older in 2010, 13.3 million, or 65.9%, were employed (Hersch and Cook 2012). Similarly, among 56.6 million adult binge drinkers, 42.3 million, or 74.7%, were employed. Among 16.5 million heavy drinkers, 12.2 million, or 74.0 % were employed (Hersch and Cook 2012). Despite indications that the majority of individuals who use psychoactive substances also hold jobs, the work-related costs associated with substance use are staggering.

Lost productivity is commonly considered to be one of the most significant costs resulting from use (Heien and Pittman 1993; Rehm 2006). They are considered to include: 1) foregone economic contributions because of premature mortality and disability, 2) absenteeism, 3) impaired productivity due to substance related illness, injury or disability, and 4) crime-related costs, including the incarceration of perpetrators, or the costs to victims of substance-related crime (Bouchery et al. 2011). In the US in 2006, the estimated costs of lost productivity for alcohol misuse was estimated at $161.3 billion (USD), or 72.7% of the total (Bouchery et al. 2011). This figure was $128.27 billion (USD), or 71.1% of the total costs attributed to drug misuse. In Canada in 2002, $24.3 million (CAD), or 61% of the total costs of substance use have been attributed to lost productivity (Rehm 2006). The global burden of substance-attributable morbidity and mortality and related employment and productivity-related costs are considerable and global in scale.

1.4 Existing Research on Substance Use & Labor Market Outcomes

The relationships between substance use and labor market outcomes are often substance specific. Some substances are integrated into the daily rhythms of the workday or cultural and social practices around work, such as the common practice of demarcating the end of the workday with an alcoholic beverage with colleagues (Gusfield 1987). These practices have been associated with strengthening team solidarity in the workplace, serving important social functions in the lives of employees and developing of firm or industry specific networks (Brewis and Grey 2008; Janes and Ames 1989; Wood 2011). Despite the integration of or complementarity between substance use and employment practices, attention on this relationship from academic, policy and therapeutic perspectives generally focus on how substance use may negatively affect labor market outcomes. Research on these effects is summarized below.

1.4.1 Labor Market Outcomes, Alcohol

The relationship between alcohol and work is complex and for some labor market outcomes, nonlinear. For example, there is considerable debate surrounding the common finding that even high levels alcohol consumption, compared to abstinence, is associated with increased income (Bray 2005; MacDonald and Shields 2001; Mullahy and Sindelar, 1996; Zarkinet al. 1998). Results are more consistent where the outcome of interest is unemployment or non-employment where problem drinking has been repeatedly associated with unemployment and labor market non-participation (MacDonald and Shields 2004; Mullahy and Sindelar 1996; Terza 2002). Alcohol misuse has also played a demonstrable role in job loss or sustained unemployment (French et al. 2011). However, not all studies find a negative relationship between high levels of alcohol use and labor supply (Feng et al. 2001).

Research has also pointed to the potentially negative impacts of job loss or unfavorable work environments on alcohol use patterns (Seeman et al. 1988; Wiesner et al. 2005), noting that job loss is often associated with increases in individual levels of alcohol consumption (see Catalano et al. 1993 for a review). They have also found that the reasons for changes in drinking behavior associated with employment experiences are complex and multifaceted (Head 2004; Martin et al. 1996; Wilsnack and Wilsnack 1992). These studies raise an important aspect of the dynamic relationship between work and employment: that while the harmful use of alcohol and other substances may increase the probability of suboptimal labor market outcomes, the threat or experience of job loss may also result in increased substance use.

1.4.2 Labor Market Outcomes, Illegal substances

In the context of return to work and the maintenance of employment, a number of studies examine how drug use impacts work-related outcomes such as income, employment tenure and labor market participation in the general population. Notably, the small number of data sources that contain both employment and drug use information limits this type of analysis. Generally, these studies hypothesize that substance use and labor market outcomes will be inversely related. However, research on the relationship between labour market outcomes and psychoactive substance use suggests considerable variation across substances, contexts, and levels of use.

1.4.2.1 Income:

As with studies examining the impact of smoking and alcohol use on income levels, the relationship between illegal drug use and income is unclear. Using the US National Longitudinal Survey of Youth (NLSY), Register and Williams (1992) and Davies (1990) have found no or inconsistent relationships between cannabis use and wage and no association between wages and cocaine use. Both Kaestner (1991) and Gill and Michaels (1992) found increased wages with

substance use, and studies using the British Crime Survey (BCS), found no relationship between hard drug use and wages (MacDonald and Pudney 2000a).

1.4.2.2 Levels of Employment:

Similarly, studies that examine the impact of illegal drugs on the amount that individuals work, or their levels of employment show similarly inconsistent results. Bray et al. (2000) suggest that symptoms of substance dependence are associated with fewer hours worked among men but not women using the National Household Survey on Drug Abuse (NHSDA). Zarkin et al. (1998) analyzed adjacent cross sections of the NHSDA from both 1991 and 1992. They found that substance use has little effect on the number of hours worked and inconsistent results among young men who smoked cannabis in successive years.

1.4.2.3 Job Tenure:

The results of studies that examine the relationship between drug use and employment tenure are more consistent with an anticipated negative impact. These include findings of negative associations between demonstrated a negative association between cannabis or cocaine use and job stability (Kandel & Davies 1990); higher levels of job turnover (Kandel et al. 1995); increased job mobility and job separation (Kandel & Yamaguchi 1987). These studies suggest that drug use may negatively affect job stability, though they are not causal analyses.

1.4.2.4 Unemployment:

The majority of studies examining the relationship between drug use and labor market outcomes focus on unemployment. Again, findings in this area are not consistent (see Henkel 2011 for a review). Kaestner (1994), for example, demonstrated different results in longitudinal and cross sectional analyses. Kandel and Davies (1990) found that cocaine use both increases the number of spells in unemployment and the duration of these spells, and DeSimone (2002) found that both marijuana and cocaine use significantly reduce the probability of employment. Gill and Michaels

(1992) found that while drug users have lower employment levels than non-drug users, a sub-sample of "hard drug" users (identified as cocaine, heroin and psychedelics) do not. Other studies have supported this analytic distinction (Alexandre and French 2004; Bray et al. 2000; DeSimone 2002). MacDonald and Pudney (2000a, 2000b, 2001), differentiate between "hard" and "soft" drug use and suggest that past and current hard drug use is significantly and negatively related to employment. French et al. (2011) separated chronic from non-chronic use and found different results for each. Bray et al (2000) demonstrated that poly-substance users are less likely to be in employment than single-substance users. These mixed results have led to conclusions that there is little evidence of a robust labor-supply drug use relationship (Kaestner 1998). However, key distinctions between different substances and types of use (DeSimone 2002), including socio-demographic specificity that considers career stage (Buchmueller and Zuvekas 1998; Kandel et al. 1995; MacDonald and Pudney 2001), gender (Hser et al. 2003; Neale 2004; Platt 1995), ethnic and differences (Hermalin et al. 1990; Platt 1995; Sterling et al. 2001) may provide clearer understandings of variation in labour market outcomes across different sub-populations of people who use drugs and elucidate the potentially important role that socio-demographic disadvantage may play in labor market outcomes among people who use drugs.

The lack of a robust labor-supply drug use relationship may also be attributable to considerable variation in the way that both drug use and employment are measured. Employment measures range from a single hour of paid labor in the past year (DeSimone 2002), working part time, being a student or attending a vocational training (Suffet 1999), or full time employment (Koo et al. 2007; Buchmueller and Zuvekas 1998). Indicators of drug use are also inconsistent across studies, with significant variation in drug use intensity or frequency measures (Buchmueller and Zuvekas 1998; Anthony and Helzer 1991; Kandel 1991). Differences may have considerable effects on statistical outcomes, necessitating caution when comparing results.

The use of nationally representative samples may further make it difficult to identify clear relationships between drug use and employment. These samples may not provide sufficient subsamples of individuals for whom the effects of this relationship are likely to be more pronounced, such as people with more intensified, prolonged use, or poly-substance use. A select number of studies compared the characteristics of employed and unemployed drug users using data from community recruited samples (Atkinson et al. 2000; Johnson et al. 2001; Koo et al. 2007; McCoy et al. 2007; Richardson et al. 2010). These studies approached the employment-drug use relationship by identifying attributes that are predictive of employment. The intention is that knowledge of these factors might facilitate the development of supports that will increase the employment capacity of unemployed or non-employed, substance using individuals (Koo et al. 2007). While results from these studies cannot be generalized, they provide a means for comparing labor market outcomes within drug using populations and specific drug use contexts.

Despite the literature on employment and drug use, studies of returning to work or entries into employment among drug users are extremely rare. An area requiring further inquiry is therefore research that examines return to work while differentiating between drug users at different stages of addiction and labour market involvement. For example, among drug injectors, community-based analyses have focused on differences in employment entry rates across different types of treatment compared with those who are not in treatment (Richardson et al. 2012). The role of treatment in facilitating the return to work among people who engage in harmful substance use is an important question, and it is to this question that we turn next.

1.5 Return to Work as an Addiction Treatment Outcome

With a few exceptions, studies on return to work generally occur in the context of addiction treatment. Employment entry is commonly used as an important outcome indicating

successful treatment in the context of addiction treatment and recovery (Magura 2003; Platt 1995). The tendency in the therapeutic literature is to frame “antisocial” behavior (drug use) as inversely related to “prosocial” behavior (employment). The focus on returning to work after addiction treatment centers around not only the provision of a legal income, but also on the premise that work structures daily routines and discourages ongoing, harmful drug use (Magura et al. 2004; Vaillant 1988). There is therefore both a symbolic and real importance of returning to or maintaining work for those who struggle with substance use disorders. An understanding of the relationships between the conceptualization, design and implementation of addiction treatment and individual vocational objectives and outcomes is therefore paramount.

Research focusing on the relationship between addiction treatment and employment has observed correlations linking existing employment or previous work experience to improved treatment outcomes (Robins et al. 1975; Vaillant 1973), such as longer term abstinence, lower relapse rates, and improved treatment duration (Castellani et al. 1997; Hser et al. 2001; Reif et al. 2004). Research has also focused on the ability of addiction treatment to facilitate positive labor market outcomes. Characteristics corresponding with socio-demographic disadvantage along lines such as ethnicity, gender, human capital, age, and expectations of labor market success are differentially associated with employment among methadone maintenance therapy (MMT)[1] and cocaine treatment clients (Hermalin et al. 1990; Sterling et al. 2001).

Post-treatment employment success rates in research studies vary, but are generally very low among addiction treatment clients. This range may be attributable to the wide range of treatment modalities, substances and evaluation designs that have been examined (Magura et al. 2004; Platt 1995). There has also been disproportionate focus on heroin users enrolled in MMT, a

[1] MMT is a long acting synthetic opiate agonist used as substance replacement therapy that, when taken daily, blocks opiate receptors and prevents people who regularly use opiates from going into withdrawal while at the same time not producing the euphoric effects associated with their consumption (Mattick et al. 2009).

lack of non-treatment enrolled individuals available for comparison, data limitations and a lack of robust longitudinal studies (Hubbard et al. 1989; Price et al. 1991; Reif et al. 2004; Sterling et al. 2001). Selection effects may further limit the generalizability of results to a broader treatment-employment link. That is, the decision to enter treatment indicates a willingness to address problematic drug use that may predispose people to engagement with social institutions. As such, treatment enrolled individuals may be at a particular stage of the addiction cycle (Platt 1995), limiting the ability to generalize results to a broader treatment–employment link.

The treatment-employment link has also been explored in the context of vocational rehabilitation (VR; Magura and Staines 2004). Here it is important to note that the vocational support needs of those enrolled in addiction treatment may be distinct from other vocational services clients. Similar to other mental health conditions, substance use disorders have an undulating functional course, with potentially significant variation across periods of high and low function. It is therefore difficult to establish at the outset, or even at the completion of addiction treatment, the eventual functionality or overall employment potential of clients. There are no guarantees that individuals will not relapse or experience setbacks in their substance use management. There is also a risk that individuals will take premature steps toward employment that may expose them to triggers or situations for which they are not ready. The availability of vocational services for those facing addictions is also a potentially serious issue. A recent study examined VR services (West 2008), noting the inadequate provision of these services despite repeated calls for them and evidence of their cost effectiveness (Shepard and Reif 2004).

1.6 Micro, Meso & Macro Level Issues in Addiction & the Return to Work

Consistent among the above studies that examine the relationships between substance use, addiction treatment and employment is their focus on the individual. While the individual plays

an important role in their own labor market and drug use trajectories, people who use drugs are also influenced – in both negative and positive ways – by wider contextual factors. Ecological models of human development and behavior have long acknowledged the influence of social, physical, economic, institutional and policy components of the broader environment on individual behavior and outcomes (Bronfenbrenner 1977; 1979; McLeroy et al. 1988; Rhodes 2002). In this section, we examine influences on the relationship between substance use and individuals' ability to both return to work and stay at work at the micro- (individual), meso- (environmental) and macro- (structural) levels.

1.6.1 Micro-level Influences on the Return to Work

Individuals with addictions, substance use disorders or who use drugs problematically face challenges related to their mental and physical health at the micro-level. A number of theoretical approaches have been taken to attempt to explain the biological aspects of addiction (Alexander 2010). A detailed analysis of these approaches is beyond the scope of the current chapter. Nevertheless, some understanding of the etiology of drug use and linkages between specific drug use patterns and individual behavior and psychological states may be an important tarting place for vocational rehabilitation and developing an understanding of the multiple individual-level factors associated with substance use.[2]

Micro- level influences on the return to work and staying at work span individual level factors that are perceived to and often do alter employment outcomes. A major micro-level influence are the health impacts of substance use. Health issues that may impact employment

[2] A useful handbook for clinicians describes common symptoms associated with and potential consequences of specific types of substance use (Glenn, M. Huber, M.J. Keferl, J. Wright-Bell, A. and Lane, T. Substance Use Disorders and Vocational Rehabilitation - VR Counselor's Desk Reference, Rehabilitation Research and Training Center on Substance Abuse, Disability and Employment).

entries specific to substance use tend to fall into four categories: 1) the acute toxicity of the substances and related effects, including overdose, 2) the acute effects of intoxication unrelated to toxicity, such as accidental injury, 3) the development of dependence on a substance and 4) the adverse health consequences of ongoing chronic, regular use, including chronic disease, blood-borne bacterial and viral infections, and mental disorders (Degenhardt and Hall 2012). Mental disorders are particularly salient given their significant association with being un- or under-employed employed (Corcoran et al. 2004; Jayakody et al. 2000) and the challenges of co-occuring mental health disorders (Kessler et al. 2005; RachBeisel et al. 1999; Villena and Chesla 2010). Each of the above categories may influence labor market trajectories in different ways. For example, an accidental injury may result in the abrupt suspension of labor market activity or job loss, while drug-related chronic disease may erode individual labor market participation capacities over time, bringing consequential changes in individual earning capacity as a result.

Among the most intuitive of the health problems impacting individual capacity to work arising from substance use are issues of physical and cognitive impairment. Separating use from physical from cognitive impairment are important distinctions in this regard. The use of a substance refers to the "prevalence or frequency of using a substance over some fixed period of time or the quantity of a substance consumed on a typical occasion of use" (Frone 2006b). Physical impairment refers to both more immediate and the long term impacts of prolonged use, such as such as intoxication, drug-induced psychosis or cirrhosis (Nutt et al. 2010). Cognitive impairment, conversely, refers to the "irreversible central nervous system impairment due to the direct pharmacological action of a substance resulting in various behavioral, cognitive and affective changes" (Frone 2006b). These changes may include increased daily discounting, behavioral inhibition or inattention (de Wit 2009), or decreased cognitive flexibility, memory or psychomotor speed (Mintzer et al. 2005).

Both types of impairment may interfere with an individual's ability to perform work-specific tasks. It is important to note, however, that these impacts will be highly variable. This is firstly because the impacts of drug use on work are substance specific (Nutt et al. 2010). For example, the immediate effects of alcohol have been shown to negatively impact concentration, coordination, reaction time, risk taking behavior, decision making and planning; those of opioids may produce mood effects including 'mental clouding', calmness and drowsiness (Kelly et al. 2004). Secondly, these impacts are also individual specific. Because of individual capacities to develop tolerance to the pharmacological or behavioral effects of a drug, use does not necessarily imply impairment (Frone 2006b; Nutt et al. 2010). While tolerance may therefore mitigate the acute physical impairment that may interfere with work, this tolerance may also be indicative of individual dependence on a substance.

Consideration of impairment as well as dependence is therefore crucial when assessing individual capacities to undertake vocational activity. Studies of dependent substance users have repeatedly noted that even chronic, high-intensity use may "not [be] about getting high, it's just getting normal" (Draus et al. 2010, p. 859). Individuals may therefore be engaged in high levels of drug or alcohol seeking behavior that are driven principally by having a sufficient supply of a substance in order to avoid withdrawal symptoms. The instability created by dependent substance use may therefore rest "fundamentally on the effects which follow when the drug is removed, rather than on the positive effects which its presence in the body produces" (Lindesmith 1947). Drug and alcohol seeking behavior may therefore play a considerable role in shaping the daily activity of dependent users (Weiss et al. 2001) and their ability to work.

Both impairment and dependence may directly interfere with practices that are crucial to the return to work or the maintenance of a job. These include issues related to productivity and safety at work, and may also relate to inconsistency in terms of punctuality, absenteeism and

reliability. The Substance Abuse and Mental Health Services Administration (SAMHSA) in the US states that individuals who have substance abuse problems tend to have twice as many lengthy absences as other employees, use more sick days and benefits, come to work tardy three times more frequently, file more workers' compensation claims and be involved in more accidents in the workplace (US Department of Health and Human Services 2001). It is important to note, however, that many individuals who use drugs are capable of and do hold regular employment without diminished performance or capabilities.

Other micro-level factors that contribute to the return to work or the maintenance of work are associated with individual level capacities. Prior educational attainment and work experience, for example, equip individuals with resources that facilitate successful job acquisition. The impact of these characteristics and capacities on employment outcomes has not been thoroughly studied among people who use drugs, though human capital theory maintains that individuals with greater individual assets, such as knowledge, skills, training, and motivation have greater productive capability. A lack of these attributes, and poor educational attainment in particular, has been commonly cited as a barrier to employment among the general population and among drug users (Danziger and Seefeldt 2003; Platt 1995). Among people who use drugs, the presence of these attributes may make it easier to leverage their human capital into re-employment, serving as a source of resiliency, a point to negotiate mutually acceptable arrangements with an employer, or decreasing the long-term consequences of leaving employment.

1.6.2 Meso-level Influences on the Return to Work

Meso-level factors that may have a bearing on the return to work or staying at work among individuals with substance use disorders refer to those factors that involve the social and physical environment to which individuals are exposed over time. These include, but are not

limited to, environmental exposures that connect work and health in the general population. This relationship is well documented, spanning topics such as exposure to workplace health hazards (Bambra 2011), material deprivation associated with suboptimal labor market outcomes (Bartley et al. 2006), and psychosocial pathways that link the work environment and work tasks, such as levels of individual control or effort requirements in the workplace, and their relationship to labor rewards, with individual physical and mental health (Karasek Jr. 1979; Siegrist 1996).

A range of behaviors, activities, circumstances and events are specific to different kinds of drug use (Rhodes et al. 2002; 2009). Drug use scene involvement, for example, play a crucial role in shaping the health and risk trajectories of people who use drugs (Curtis and Wendel 2000; Hough and Natarajan 2000; Kerr et al. 2007) and the likelihood of returning to work (Richardson et al. 2013). Drug scenes have been described elsewhere as distinct areas, usually in the inner city, where there are high concentrations of people who use drugs and drug dealing (Curtis and Wendel 2000; Hough and Natarajan 2000). These areas host socio-spatial networks within which the day-to-day activities of people who use drugs, such as securing money, shelter, and drugs are situated (Bourgois 1996; Fast et al. 2010; Maher 1997). These scenes and their associated networks matter for individual drug use intensity and risk behaviors (Latkin et al. 2010; De et al. 2007), as well as for opportunities for work and employment opportunities, among other complex socio-economic impediments (Jencks & Mayer 1990). Conversely, there can also be benefits from exposure to positive social environments. The efficacy of alcoholics anonymous is often linked to improvements to individual social connections and capital that may accompany participation in 12-step programs (Laudet and White 2008; Zajdow 1998). Where there is complementarity between a 12-step meeting's social environment and a participant, positive reinforcement can be developed among peer groups that may encourage ongoing attendance and participation. It may also create social ties away from those that may have previously been

embedded in drug use environments and toward other social and institutional ties, which include the work promoting social contacts.

The physical environment may also play an important part in facilitating or hindering individuals in their labor market objectives. In particular, access to stable housing (or a lack thereof) has been repeatedly identified as an important contributor to socio-economic vulnerability and successful labor market engagement (Anderson et al. 2007; Richards 1979). The association of unstable housing with, health-related risk behavior and suboptimal labor market outcomes (Beardsley et al. 1992; Suffet 1999) suggests that it is a critical aspect of an individual's physical environment that affects obtaining and holding a regular job.

The social and physical environment is inextricably linked to resource access, social norms, health-and employment-related behavior. Individual capacity and willingness to engage or maintain engagement in the labor market cannot therefore be assessed, supported or facilitated without considerations of the meso-level context. It is important, therefore, when designing vocational programming for clients engaged in harmful substance use that consideration of the meso-environment play a prominent role.

1.6.3 Macro Level Influences on the Return to Work & Staying at Work

Structural-level influences include policy, regulatory and legal contexts; local, regional and national economic conditions; as well as inequalities and inequities that manifest along demographic lines of race, ethnicity, class and cultural organization (Bronfenbrenner 1977; Carlson 1996; Doyle 1979; Marmor et al. 1994; 2008; Rhodes 2002). While a comprehensive description of the various structural forces that may influence the return to work and staying at work among individuals who use drugs, have substance use disorders or face addiction is beyond the scope of the current chapter, examples with particular relevance to addictions, employment

and the return to work demonstrate how individuals' actions and reactions are "situationally and structurally dependent on the environments in which they occur" (Rhodes 2002, p. 88).

1.6.3.1 Job Availability & Employment Opportunity:

The first relates to economic conditions that adversely impact employment opportunities. In times of economic hardship, the absence of work opportunities may impact both individual socio-economic resources and drug use outcomes. For example, Johnson et al. (1985) observed that the probability of having a job in inner-city neighbourhoods was essentially nonexistent even when individuals were not using drugs, and point to a systemic failure to provide enough jobs for all citizens. Similarly, others look to the restructuring of the North American economy away from manual and manufacturing related jobs, combined with a shift away from rehabilitative social service provision towards more punitive models for people who use drugs, as playing a crucial role rendering entire categories of manual workers obsolete and without the ability to adapt to economic change (Bourgois and Schonberg 2009; Draus et al. 2010).

The interaction among social and economic deprivation, the consequences of unemployment and opportunistic drug market forces configure socio-economic conditions surrounding drug use in deprived areas and engender considerable pressures away from labor market participation or returning to work. The macro-level, often overlapping, structural drivers of drug use and non-employment point to the importance of supra-individual and non-health oriented interventions to promote improvements to both drug use and employment outcomes. Examples of these types of interventions may include shifts in housing policy (Pearson 1987) and microeconomic and community development initiatives (Blankenship et al 2000; Hawkins 2001).

1.6.3.2 Unemployment Traps:

A second example of a macro-level factor impacting the return to work or staying at work relates to the incentives created by social welfare structures and the role of unemployment benefits

(Devine and Kiefer 1993). Social assistance is in many cases designed to provide a basic level of income, but not be so generous as to decrease individual incentives to return to work and stay at work, even if employment is low paying. (Atkinson and Micklewright 1991). The debate over the role of unemployment benefits in promoting a return to work is, however, unsettled. There appears in some cases to be a positive relationship between unemployment benefits and unemployment duration, though this effect is affected by labor market conditions and work characteristics (Devine and Kiefer 1993). Conversely, a number of studies demonstrate very small or non-existent changes to re-employment probabilities with increases in benefit levels, as the end of benefit eligibility nears, or if benefit eligibility is extended (Layte and Callan 2001; Spiezia 2000; Tsebelis and Stephen 2001). Additional features of unemployment benefits relevant to labor market behavior such as retraining and search requirements may also play roles for people who use drugs in their efforts to return to work or maintain employment. Benefits may therefore have positive or negative impacts on re-employment incentives that may depend on qualifying conditions and institutional relationships (Atkinson and Micklewright 1991). Finally, more recent studies note unintended consequences of toughening the benefit regime; more stringent eligibility criteria or decreased levels of benefit may push those on “margins of crime” toward increases in criminal behavior (Calvó-Armengol et al. 2007; Machin and Marie 2006).

Further, individuals who are in receipt of social assistance may be entitled to benefits that are contingent upon their continued receipt of such assistance. These benefits may be medical in nature and may involve access to services that are crucial for mitigating the harm from drug use or working towards drug use cessation and employment (re)uptake, such as methadone maintenance therapy or addiction treatment services. Other benefits tied to social assistance receipt that are important for the acquisition and maintenance of employment, such as access to social housing or housing-related supplements, may also be in effect. Because these benefits are

tied to social assistance receipt and eligibility for them may cease upon the resumption of regular employment, a considerable disincentive to ending social assistance can be created. Indeed, an individual's quality of life may decrease upon the initiation of employment because, with low paying jobs in particular, an individual's effective income or material secruity on social assistance may be higher than that in employment. The design of social assistance programs is therefore of crucial importance if they are strike a balance between providing a basic level of access to socio-economic resources and health services and encouraging individuals to participate in the labor market. The expansion of tied benefit eligibility to those in low income employment may prove crucial in optimizing this balance. There is, however, little research on the impact of such macro-level "unemployment traps" (Neale and Kemp 2009) on incentives to return to work or maintain work. This may be a fruitful area for future research.

1.6.3.3 Compatibility between Addiction Treatment & Work:

A further example of macro-level factors that may influence the return to work or the maintenance of a job for people who use psychoactive substances is the relative compatibility of essential health or addiction treatment services with seeking, obtaining and maintaining a job. These incompatibilities may relate to the time requirements of accessing a job, and that a new or existing job may not afford sufficient time flexibility to both access a service and maintain a job. They may also surround the geographical compatibility characterized by the distance between a service access point and a place of employment. For example, the attendance requirements of methadone maintenance therapy may create considerable obstacles to labor market participation for these reasons (Richardson et al. 2012). Methadone, in many contexts, is dispensed at a single pharmacy in single doses under the supervision of a pharmacist on a daily basis (Anderson and Warren 2004). Adherence to regulations, and the time and geographical limitations implicated in this adherence, may prove to be highly consequential to labor market outcomes, particularly in

environments where MMT is not widely available. Other treatment modalities require that individuals live in a sequestered environment. These may involve the severing of a work relationship, or the disruption of social network ties that may be instrumental to finding a job.

The regulations or requirements of addiction treatment enrolment may be designed to support important purposes. For example, the rules governing the provision of MMT are intended to prevent individuals from diverting methadone for either inappropriate use by MMT clients or use by individuals for whom it was not prescribed (Ritter and Di Natale 2005). Nevertheless, such precautions, regulations and restrictions should be weighed against the potentially important impacts that they have on individuals' ability to engage in the treatment and rehabilitation process generally, and on their ability to seek, obtain and maintain employment in particular. The impediments to treatment enrolment and retention or the social and economic functioning of people who use psychoactive substances are paramount to the promotion of returning to or staying at work, and should figure prominently in the design of regulations, programs, or vocational or employment supports. Any adjustment that increases, for example, the time or geographical compatibility of employment and addiction, health, or social support services could have potentially positive impacts on the labor market participation of people who use drugs.

1.6.3.4 Employer Stigma & Discrimination:

Finally, the stigma and discrimination directed towards people who use drugs exacts a considerable toll on their ability to obtain and maintain employment. The employment-specific consequences of the stigma of having a history of a substance use disorder include individual devaluation or decreases in perceived competency, trustworthiness, productivity, or moral sufficiency; impacts on personal relationships, quality of life, health and safety; the exacerbation of social inequalities; and disproportional marginalization or rejection (Link et al. 1997; Murphy and Irwin 1992; Room 2005). The anticipation or experience of stigma from employers or

employees may dissuade individuals from accessing potentially crucial addiction-related services, as it may be that accessing such may, for example, increase the probability that an individual may be forced to disclose their treatment status in order to access leave provisions, employer-provided benefits or to keep their job. Stigma from current or potential employers or coworkers, whether or not active drug use is ongoing, has been previously identified as a considerable obstacle to employment (Crisp et al. 2000; Dillon 2004; Gold 2004). When combined with the negative impacts of stigma of unemployment (Biewen and Steffes 2010; Heckman and Borjas 1980; Ho et al. 2011), which identify a long lasting, increased probability of unemployment for those who report previous unemployment, the macro-level and structural impacts of stigma from drug use and unemployment may be scarring and profound.

A broad spectrum of micro-, meso- and macro-level factors may influence the character and intensity of substance use as well as the impact of such use on the return to work or maintenance of work. The various individual, environmental and structural processes and exposures described here are far from a comprehensive examination of those pressures away from and obstacles to labor market participation among people who use psychoactive substances. This discussion does, however, point to the complexity faced by both individuals who aim to return to or maintain employment and those who seek to support them in this endeavor. The remainder of this chapter focuses on a sample of strategies to support vocational outcomes among individuals with substance use disorders or addictions.

1.7 Returning to Work, Staying at Work & Substance Use Disorders

Returning to work and staying at work for those with substance use disorders or substance dependence can seem a daunting and overwhelming task given the micro-, meso-, and macro-level factors that exert pressures away from labor market participation. There are a range of

potential strategies, supports, and programs to encourage the return to work or job retention, most of which target micro- or meso- level factors. In practice, substance use guidelines for and theories about promoting change as well as counseling and vocational rehabilitation support generally occur at the micro-level of the individual. Consideration of the social, and physical and structural environment may also be at play, but are experienced in unique ways by each individual. It is therefore crucial that clinicians individually assess each client, as well as relevant contextual exposures. Vocational counseling, programs and return to work interventions that focus uniquely on the micro-level will inevitably face considerable limitations.

1.7.1 Types of Addiction Treatment

There exist a range of available addiction treatment options. Probably the most common type of addiction treatment is *outpatient or community based treatment.* Typically, this type of treatment is comprised of weekly one-on-one or group sessions delivered by either a professional or non-professional peer. Outpatient or community-based treatment includes 12-step programs such as Alcoholics Anonymous or Narcotics Anonymous. Another type, *residential treatment*, involves relocating individuals to an environment specifically focused on drug use cessation and significant life change. Residential treatment environments are generally abstinence focused, and can range in duration from two week to a period of a number of years.

Hospital based treatment, the most intensive and expensive, is reserved for those who need medical monitoring or care. This approach may be appropriate for individuals undergoing an involved or protracted withdrawal experience, drug-induced psychosis, or concurrent mental health crisis. This type of program is typically short (i.e. up to 30 days), and generally involves discharge to community, outpatient or residential treatment. Finally, *harm reduction* interventions, including substance replacement therapy, shift the acquisition of psychoactive

substances away from illegal drug markets toward medical prescription. These may include methadone maintenance, buprenorphine or extended-release naltrexone.

1.7.2 Occupational & Vocational Perspectives on Addiction Treatment

The approaches described above focus on achieving substance use goals of abstinence or harm reduction. However, there are recognized benefits to promoting treatment goals that incorporate broader perspectives on health and well-being, including vocational activity as a critical component of treatment. The following section outlines principles and guidelines of this approach that are designed, among other things, to enable the return to work or staying at work.

1.7.2.1 Occupational Approaches to Substance Use Disorders:

Occupational approaches to rehabilitation start with the objective of matching therapeutic engagement with an individual client's stage of recovery in order to promote incremental change towards broader life goals, including vocational objectives. The recognition that positive change in one area of life impacts other areas enables the therapist to identify and work in domains where there is space to explore change. Various models in the literature describe "stages of change" models. However, it is crucial to acknowledge that rehabilitation is an individual process that will involve progress and setbacks, both of which provide opportunities for growth and learning, with no deterministic formula that is universally appropriate for all situations. For example, Prochaska and Diclemente (1982; 1983) developed a "transtheoretical" model of change to describe the change process. This model gained traction because of it effectively matches client's readiness to change with activities jointly planned by both the client and their professional supports. The language of this model involves progression from *precontemplation* to *contemplation* to *preparation* to *action* to *maintenance* (Prochaska and DiClemente 1982). With steps forward and back across these stages, the client and clinician can match activities accordingly.

Motivational interviewing is another evidence-based model emphasizing individualized treatment plans with a focus on client motivation (see Dunn et al. 2001; Rubak et al. 2005; Vasilaki et al. 2006 for reviews). The Decisional Balance Tool is commonly used as part of motivational interviewing to assess client readiness for change. This tool involves constructing lists of the benefits and drawbacks of the status quo, and doing likewise for individual change. Particularly important in this assessment is the non-judgmental exploration of the client's perceived consequences of the status quo and of changing substance use activities. As the client develops awareness of the micro, meso, and macro factors influencing their activities, the client shifts their perspective from an external to internal locus of control as they start to appreciate their role in individual change. In these models, there is no assumption that the client needs to abstain from drugs or alcohol to move forward in the rehabilitative process. The drug is not viewed as the problem, but rather a symptom of a problem. The emphasis of rehabilitation is therefore in identifying and working to resolve the root cause of problematic substance use.

1.7.2.2 Goals of the Rehabilitative Process from a Vocational Perspective

The ultimate goal of substance use rehabilitation is improved functioning. Goal attainment, and, ultimately recovery, relates to each of the biological, psychological, social and spiritual domains, not just a change in substance use. Although abstinence from substance use may be an "ideal" outcome of rehabilitation, gains, goal attainment and functional improvement are possible without cessation of substance use. There may be certain employment contexts or conditions where abstinence from substance use may be mandatory, particularly in security or safety-sensitive roles (Tunnell 2004). However, abstinence does not denote recovery, but is often considered a helpful step towards the achievement of goals in the biological, psychological, social and spiritual spheres. Absence from substance use, for example, is often coupled with broader goals surrounding health and well-being.

Vocational and employment goals are often conceptualized as an outcome of treatment (Magura 2003; Platt 1995), but the Substance Abuse and Mental Health Services Administration (SAMHSA) recommends exploring and planning for vocational outcomes at *every* stage in treatment (US Department of Health and Human Services 2001). Clinicians are able to anchor long term employment goals and hope for a better quality of life through the cultural lens of having a job and being part of the productive fabric of their community, based on each client situation and need to correspond to an intersection between the individual's job preferences, their skills, and the job. The stages and process by this goal setting varies across individuals. Some will go through treatment, gain control over their substance use (often abstinence), and then proceed to vocational rehabilitation. Others will maintain employment and aim to make gains in reducing the impact substance use has on their employment performance. Yet others will work towards employment and substance use changes concurrently.

1.7.2.3 Rehabilitative Assessments & Vocational Objectives

Although assessment and intervention iteratively informing each other throughout treatment processes, assessment is the first stage of treatment and establishes the starting point for care planning in each life domain (bio-psycho-social-spiritual). The process of assessment encourages readiness for change, through increased understanding of the steps needed to meet their substance use, health and vocational goals. In this way, assessment can serve as an initial intervention. The outcomes of assessment can play a critical role in clinical and vocational outcomes as, for example the field of motivational interviewing considers the therapeutic relationship the single most important factor the counselor can affect.

Assessment begins once a therapeutic relationship has been established and the client is able and willing to engage in the assessment process. While a comprehensive description of assessment tools is beyond the scope of the current chapter, a range of such tools have been

developed and undertaken. Nevertheless, the combined use of three assessment tools provides a foundation for vocational rehabilitation and care planning. These include a substance use assessment, a functionality assessment, and a readiness for change assessment.

Although not mutually exclusive from a substance use assessment, the functionality assessment is an important accompaniment where goals span beyond a simple change in substance use behavior to more generalized improved functioning. A functionality assessment may also critically inform vocational outcomes and labor market involvement goals. Such an assessment takes an inventory of individual health and service needs (access to which may affect or be affected by vocational activity) and assesses individual living and vocational skills (e.g., reading, writing, relating to supervisors and coworkers, or using a computer). Five key areas for a functional assessment include living, managing finances, learning, working, and interacting socially (US Department of Health and Human Services 2001). Skills assessments involve itemizing the cognitive, emotional, and physical components of a given skill vis-à-vis a functional activity and observing the client perform these skills in as close to a "real life" scenario as is possible. Strengths identified in the functional assessment can be then mobilized and deficits or limitations addressed through skill development. Another method for assessing function is through standardized vocational tests or through completing a vocational history.

Finally, and probably most importantly, is the need to assess the client's readiness for change, including motivation, self-efficacy, and strengths. The readiness assessment examines the complex social, emotional, physiological, and environmental factors contributing to the individual's vocational potential. As individual's strengths, weaknesses, barriers and interests are discussed, clients are offered options for activities that would likely improve or develop their knowledge or awareness. The Decisional Balance Tool described above is an excellent assessment tool for establishing the client's readiness for vocational change and effectively

develop awareness about the connection between substance use and individual function. At this stage it is necessary to consider whether education, skills development or training is necessary , in order to meet vocational objectives. It is also necessary to assess whether individuals have requisite components to undertake activities designed to improve functionality, such as a stable home or stable finances. Notably, motivation for change has been documented as one of the most robust predictors of treatment success (McKay and Weiss 2001).

1.7.3 Structuring the Recovery Process

The concept of transitions or stages can be a helpful framework for structuring rehabilitation. The most widely accepted framework is associated with the transtheoretical model of change (Prochaska and Diclemente 1982; 1983). The shape of the recovery process will inevitably be different for each individual, with quite different activities depending on the stage at which a person enters rehabilitation. As mentioned above, the stages of change often follow precontemplation, contemplation, preparation, active, or maintenance phases. A clinician's role will be to enable them to identify their stage and create a plan accordingly. While described in further detail elsewhere (Prochaska and Diclemente 1982; 1983), each of these stages are briefly described in relation to return to work or maintaining work here.

Pre-contemplation: This stage is often described as the first stage of change. If the client is described as pre-contemplative, they do not perceive of their primary issues, including vocational considerations as related to substance use and are resistant or unaware of the possible correlation between their substance use and their functional deficits. At this stage, the clinician emphasizes exploring positive health changes in the areas where the client identifies needing help. For example, in instances where a person is seeking help finding employment, but does not associate substance use issues as a barrier to employment, the clinician can focus their time

looking at the typical lifestyle necessary to be successful in employment. This exploration is done in a non-threatening way in order to build rapport. This allows an open discussion whereby the client is not defensive or oppositional to exploring their options.

Contemplation: As the client starts to explore their vocational functioning and its relationship to their substance use, they are described as being in the contemplation phase. They are contemplating the functional impact of change, usually through dialog and homework that is exploratory in nature. The direction of vocational rehabilitation will largely depend on the client's motivation for change. An individualized assessment enables the client to develop awareness about the complexity of factors that are contributing to their functional deficits.

Preparation: As the client explores and contemplates change, they may consider action in one or more areas of their life. This action may include more intensive change, such as residential treatment, or slow progressive change as in outpatient or community based counseling. Typically, priorities are set in any of the micro-, meso-, macro- levels or through biological, psychological, social, or spiritual lenses. The clinician offers exploration of the various settings possible for enacting change.

Action: If the client wishes to pursue change, they are said to be in the action phase of change, with goals set in the short and long term. The clinician works with the client to try change in any areas of functioning and then together, the clinician and client explore the functional effects of change.

Maintenance: Positive change that often needs maintenance to keep. Similarly, progress and goal attainment usually involves the person moving from an environment of high support and structure to reduced external supports. The maintenance stage acknowledges the undulating nature of substance use and enables the client to get increased support when needed despite having already achieved outcomes.

Individual vocational goals, and barriers to achieving them will provide key insight into the most appropriate approach to rehabilitation. These barriers may also help determine the most appropriate form of addiction treatment. Ideally, vocational rehabilitation would start the moment the person were able to engage in the process. The concepts of early recovery, middle recovery, late recovery and maintenance are described in the previously mentioned *Substance Use Disorders and Vocational Rehabilitation - VR Counselor's Desk Reference* (Glenn et al.).

1.7.4 The Role of Self-Help, Mutual Aid & Peer Support

Individual's relationships with their peers may prove particularly important in the vocational process. Hope has been documented as an essential element of change, which has been operationalized as a way to link the past, the present, and future (Whitley 2010). Peer support provides clients with tangible examples of people similar to them at different stages of recovery that may foster the development of hope. Alcoholics Anonymous, Narcotics Anonymous and various related 12-step programs are the most commonly recognized programs based on self-help or peer support models. Peer Support has the recognized benefits of providing a new support system, does not necessarily come with the institutional barriers of a client-therapist relationship, and is often a positive entry point. However, there is considerable debate about the effectiveness of AA/NA, and little evidence supporting peer support as a replacement for engagement with a health care professional (Arkowitz and Lillienfeld 2011; Kaskutas 2009; Kelly et al. 2009). When advising clients regarding self-help, the central question to ask is whether they feel that the service provides hope and whether they can develop the foundation of a new community. A potential area of peer-based support that has not been systematically explored is employment-focused peer support for individuals with substance use disorders.

1.7.5 Developing Readiness to Change From a Vocational Perspective

To develop awareness about substance use behavior and employment goals, there are a number of helpful approaches. These may include exploring the job market, the skills and experience levels necessary to acquire and retain a particular job, the types of stressors associated with different jobs or types of work, and their understanding of vocational expectations and employee practices. Prevocational services such as these are typically explored before an individual begins the job-seeking process. Although some clients have work-related skills that might be recovered, updated, or refined through a training process, others may have limited employment skills and may need to develop them. Supportive activities in this regard could further include exploring job postings or visiting work sites. The objective of this pre-vocational activity is to facilitate client learning and to develop a realistic view of their skills, abilities, and limitations. The client, in the process will learn problem solving and coping skills, which may further enhance their motivation and self-efficacy related to vocational-specific change.

Although sometimes perceived as slow paced, the rehabilitation process is itself therapeutic and often promotes life changes that provide long term benefits. Throughout this process, specific skills may be taught and reinforced to support acquiring competitive employment. These may include competency with computers, resume writing and skills considered important in employment environments, including interpersonal communication, punctuality and accountability. Because individuals will, as a part of their employment, receive compensation, they may also need to acquire or enhance their ability to manage money.

It may also be beneficial at the pre-employment stage to encourage clients to undertake home or community work, where appropriate. Since vocational involvement and labor market participation will occur in the real community, an exploration of and engagement with the community becomes essential to preparing for a return to work. This engagement could entail

visiting community resources such as libraries, stores, and businesses with purpose of observing and taking note of how these institutions employ individuals. Volunteering and taking continuing education courses to determine and validate interests can also be helpful.

1.8 Employment Models: Returning to Work & Staying at Work

A range of employment types and work-specific engagement and support models to assist individuals who have substance use disorders. Many of which fall under workplace policies or social support mechanisms. For example, during or following engagement in addiction treatment or vocational rehabilitation, individuals may seek competitive employment. Individuals who are in existing employment may take a leave of absence or access workplace specific supports for substance use disorders. They may also seek employment counseling as a part of conventional treatment programs, though this is not often documented and rarely evaluated (Magura and Staines 2004). Despite evidence of its cost effectiveness (Shepard and Reif 2004) and repeated calls for the expansion, VR counseling has been inadequately provided (West 2008). A comprehensive review of the different types of vocational support programs in an addiction treatment context is beyond the scope of the current chapter (refer to Magura et al. 2004 for a review). However, a number of employment interventions warrant further attention.

Employment interventions are highly particularized, with different target populations, eligibility criteria, durations, design and desired outcomes. As a result, it is very difficult to develop guidelines surrounding best practices, evidence around effectiveness, or templates for future interventions. Four main types of interventions offered in conjunction with addiction treatment that may exist independently or in combination with one another. These include: 1) work readiness training, similar to the prevocational approaches described above, 2) skills training, 3) job placement assistance, or 4) supportive employment (Magura et al. 2004).

Supportive Employment appears to have developed an evidence base for the attainment of vocational goals (see Substance Abuse and Mental Health Services Administration 2009). Supported Employment is a VR approach focusing on helping people with addictions and mental health issues to choose, get, and keep competitive employment, with additional supports to promote success in the workplace. The main principle these models is the belief that all people are capable of working in the competitive labor market. Rather than focus on prevocational assessment and training, consumers are offered help finding and keeping jobs that capitalize on their existing strengths. The primary goal of supportive employment is not to require change, but match client's experience and job preferences with existing jobs. Emphasis is on rapid job search at the outset, and with success clients' enhance their self-perception as workers and contributors, which in turn may contribute to their willingness and ability to pursue other rehabilitative goals.

1.8.1 Alternative Income Source Development

Employment models may also be fruitful in encouraging labor market participation for individuals who who engage in income generation practices that may expose them to considerable risk to health and safety. These include, for example, sex work or illegal income generation such as drug dealing or acquisitive criminal activity (DeBeck et al. 2007) that in the presence of viable economic alternatives, they would otherwise forgo. While examples of the development of economic alternatives are rare, they have been shown to decrease high-risk behavior among drug using sex workers (Sherman et al. 2006). Involvement of drug users in the delivery of health programs or research has also been well received by participants (Hayashi et al. 2012; Kerr et al. 2006; Latkin et al. 2003), although these initiatives' impacts on health, social and economic outcomes have not been evaluated. These types of initiatives do, nevertheless, hold the potential to facilitate subsequent labor market involvement because of the skill development,

acquisition of prosocial roles or enhancement of beliefs about employability inherent licit income generation (Richardson et al. 2012).

1.8.2 Contingency Management

Another potentially applicable employment model for individuals who are out of treatment is vocational contingency management (CM). This model reinforces drug abstinence for individuals by linking individuals' access to employment and their wages to biologically verified drug abstinence, generally through a requirement to provide drug-free urine screens (see Silverman et al. 2007 for a review). Generally, individuals who are either stabilized on methadone maintenance or have completed drug treatment are provided access to a job in a specialized workplace. If they provide a drug-free urine screen then they have regular access to the workplace at a pre-established wage. If they do not, they may either be denied access, or face a significantly decreased wage that they then gradually rebuild to previous levels through the subsequent provision of repeated drug-free screens. Various configurations of financial incentives and sanctions are possible through CM models. This type of financial reinforcement has been shown both to encourage labor market participation and abstinence from drug use (DeFulio et al. 2009). This intervention has, to date, not been evaluated for other outcomes, such as decreased frequency or intensity of drug use as opposed to abstinence, changes in socio-economic status or vulnerability, accessing other health or social services, or other health-related or prosocial behavioral outcomes.

Additionally, the effects of CM interventions do not reliably produce change in drug-use behavior beyond the duration of the intervention, and individuals tend to relaps once financial incentives are removed (Silverman et al. 2007). While the broader scale up of CM strategies may be related to issues of financial feasibility, a lack of attention to underlying issues, potentially

negative side effects and philosophical objections (Kirby et al. 2006), this type of model may warrant further exploration in the promotion or maintenance of labor market engagement.

1.9 Summary & Best Practice Points

1. Employment is an important social determinant of individual mental and physical health among individuals who use psychoactive substances problematically.
2. Substance use occurs among all demographic groups across the socioeconomic spectrum, and the impact of substance use on labor market outcomes depends on micro-, meso- and macro- level factors.
3. Rehabilitation considerations in returning to work or staying at work for individuals with substance use disorders are highly context- and individual- specific.
4. Vocational rehabilitation clinicians should consider and enable their clients to become aware of the functional relationship between their substance use and employment performance. Clients and counselors need to explore the cultural, sociopolitical, physical, economic, psychological, and spiritual circumstances of each client.
5. "Recovery" may involve cessation of substance use, but it may not. Clinicians can support their clients through an understanding of the unique stages of recovery and by matching interventions accordingly. Vocational considerations of returning to work and staying at work should be present throughout the therapeutic process.
6. Working with clients to identify and plan accordingly for relapse triggers, and to develop skills necessary to problem solve and cope with them, is a crucial component of long term substance use disorder management and vocational rehabilitation.

7. The establishment of client-centered vocational goals should consider the client's motivation and self-efficacy within their given environment, which includes employment readiness and the economic and social conditions of their surroundings.
8. To support individual vocational objectives, clinicians may also need to explore the specific skills and environments associated with the client's goal, including the types of stressors and rewards associated with particular roles and contexts.
9. An important aspect of vocational rehabilitation among substance using individuals is enabling the client to develop a realistic view of both their skills, abilities and limitations in addition to the requirements of employment.
10. Several models have been developed to specifically facilitate the return to work or job retention component of a broader rehabilitation program among substance users. These include, but are not limited to, conventional job search, supportive employment, alternative income development and contingency management approaches. No single model is or will be appropriate for all clients.

1.10 Conclusion

In sum, the relationship between substance use and employment is a complex one. Employment, as an important social determinant of health in the general population, is often neglected as an important component in the treatment and rehabilitation process among people who use drugs. In the academic literature, the relationship between drug use and labor market outcomes is consistently hypothesized as an inverse one. The reality is that most people who use drugs are also employed. However, for a substantial minority of drug users, complex configurations of micro-, meso-, and macro-level factors create considerable pressures away from labor market participation, although the contribution of factors at each of these levels may be

positive or negative, and is generally context-specific. Further, from a vocational rehabilitation perspective, linkages between addiction treatment and vocational services are generally insufficient, despite evidence of their cost-effectiveness.

Occupational perspectives on vocational rehabilitation and labor market participation among individuals with substance use disorders helpfully and constructively acknowledge that individual change occurs across a number of domains, of which vocational involvement is an important one. The overarching goal of these approaches is improved functionality, which may take various forms. Occupational perspectives also recognize that rehabilitative change can occur in contexts of active substance use as well as abstinence. While perspectives and approaches to returning at work and staying at work are, in general, underdeveloped, it is important to recognize that, as in the general population, employment and labor market involvement are an important social determinants of health among people who use drugs in problematic ways.

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