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Promoting recovery in an evolving policy context: What do we know and what do we need to know about recovery support services?

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ABSTRACT

As both a concept and a movement, “recovery” is increasingly guiding substance use disorder (SUD) services and policy. One sign of this change is the emergence of *recovery support services* that attempt to help addicted individuals using a comprehensive continuing care model. This paper reviews the policy environment surrounding recovery support services, the needs to which they should respond, and the status of current recovery support models. We conclude that recovery support services (RSS) should be further assessed for effectiveness and cost-effectiveness, that greater efforts must be made to develop the RSS delivery workforce, and that RSS should capitalize on ongoing efforts to create a comprehensive, integrated and patient-centered health care system. As the SUD treatment system undergoes its most important transformation in at least 40 years, recovery research and the lived experience of recovery from addiction should be central to reform.
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1. Introduction

Health care professionals, government agencies and individuals experiencing addiction are increasingly embracing *recovery* both as an organizing concept and as a goal for SUD-related services. Thought leaders in the field have defined recovery as “a voluntarily maintained lifestyle characterized by sobriety, personal health, and citizenship” (Belleau et al., 2007, p. 222; for similar definitions see Center for Substance Abuse Treatment, 2006; Clark, 2007). Those who experience it themselves have described recovery as a ‘new life’ and a ‘second chance’ (Laudet, 2007). Around the country, *recovery support services* (RSS) are emerging as a key method of helping more people achieve and maintain recovery. Accordingly, in this paper, we describe the policy forces supporting the rising prominence of recovery and recovery support services, and discuss emerging research on the structure, purpose, nature and effectiveness of such services. In doing so, we hope to advance understanding of what is known and what needs to be known about how to create recovery support services that are effective and responsive to the life situations of values to those who seek recovery.

2. Policy context

A number of policies are supporting an expansion in the quality and quantity of services for SUD, including recovery support services. Most notably, the Affordable Care Act of 2010 is a landmark piece of federal legislation that intends to address the needs of individuals with multiple chronic physical and behavioral health conditions (e.g., SUD) while containing escalating costs (Buck, 2011; National Council for Community Behavioral Healthcare, 2010). A particularly relevant element of the ACA is the integration of primary and behavioral health care in such venues as patient centered integrated chronic care health homes (National Council for Community Behavioral Healthcare, 2011) on the assumption that multiple chronic conditions should be treated in an integrated manner. This principle will be familiar to SUD experts as it is embraced in treatment services focused on serving dually-diagnosed individuals (Drake et al., 2001; Grella, 2003; Timko, Dixon, & Moos, 2005) and has demonstrated effectiveness (Moggi, Ouimette, Finney, & Moos, 1999; Sacks, McKendrick, Sacks, & Cleland, 2010).

The Affordable Care Act is projected to cover 32 million currently uninsured Americans, 6 to 10 million of whom are believed to have a substance use and/or mental health disorder (Congressional Budget Office, 2010). Critically, in the expanded Medicaid coverage and state health insurance exchanges that will be used to expand coverage, treatment of SUD is defined as an essential health care benefit. Paired with the Paul Wellstone and Peter Domenici Mental Health Parity and Addiction Equity Act of 2008 that required equitable coverage for mental health/substance use disorders to more than 100 million Americans in group health plans, this represents a substantial increase in accessibility to care (Humphreys & McLellan, 2010). Less well known but still important is that the higher co-pay for mental health and SUD services versus all other services in the Medicare program (50% versus 20%) is gradually being phased out, which will become increasingly important as more Americans than ever come to rely on Medicare.

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These significant changes in the U.S. health care system are occurring concurrent with a push for recovery-oriented concepts by the Substance Abuse and Mental Health Services Administration (SAMHSA). SAMHSA is advancing the Recovery Oriented Systems of Care (ROSC) model that constitutes an organizing framework for recovery support services. ROSC's goals are to intervene early with individuals with SUDs, to support sustained recovery from SUD, and to improve the health and wellness of SUD affected individuals and families. The model proposes a multi-system, person-centered continuum of care in which a comprehensive menu of coordinated services and supports is tailored to individuals' recovery stage, needs and chosen recovery pathway (Clark, 2007, 2008). Clients may receive help with education and job training, housing, childcare, transportation for treatment and work, case management, spiritual support, as well as SUD-focused services (e.g., relapse prevention, recovery support, SUD education for family members, peer-to-peer services and coaching, self-help, and support groups, see Kaplan, 2008; Sheedy & Whitter, 2009).

ROSC is responsive to calls from the Institute of Medicine and leading addiction researchers for a shift in SUD treatment from the acute care model to one more akin to the model used in other chronic conditions (Humphreys & Tucker, 2002; Institute of Medicine, 2005; McLellan, Lewis, O'Brien, & Kleber, 2000; White, Boyle, Loveland, & Corrington, 2005). The full range of ROSC services is intended to address the multitude of life areas nefariously affected by chronic SUD and to respond to clients' changing needs across their lifespan. Implementing ROSC nationwide will require transformative changes within agencies that address SUD directly as well as within those that serve the population through other avenues (e.g., mental health and social service agencies). The Affordable Care Act's expansion of Medicaid and creation of health insurance exchanges give states added resources to make these changes. At this writing, ROSC is gradually taking hold as more states and cities are implementing components of the model (Evans, 2007; Kaplan, 2008; Kirk, 2008).

Many of the leaders in the ROSC model gained valuable knowledge from a SAMHSA initiative that began earlier: The Recovery Community Services Program (RCSP). RCSP focuses on peer-to-peer recovery support services (Kaplan, Nugent, Baker, Clark, & Veysey, 2010). The initiative has funded 50 projects since it began in 1998, with services that include peer coaching and mentoring, educational and skill-training services (e.g., help with housing, education and employment), building constructive family and other personal relationships, stress management, sober activities, fostering access to multiple systems such as the primary and mental health care, child welfare, and criminal justice systems.

Finally, Access to Recovery, another SAMHSA initiative, has also supported the growth of recovery support services. With the goal of increasing access to treatment and recovery support for underserved populations (e.g., pregnant women, rural dwellers, individuals involved in the criminal justice system), ATR is a voucher-based program that aims to enhance consumer choice of service providers. Unlike in most federal programs, clients can choose to receive services from faith-based organizations, most of which have a long tradition of mutual support going back for decades if not centuries.

Parallel with and informed by the recovery orientation at the service level, other federal agencies are incorporating recovery in their policies. The President's National Drug Control Strategy emphasizes the importance of promoting recovery, regardless of pathway (Office of National Drug Control Policy, 2011). The strategy includes a call for the expansion of recovery support services across community-based settings. The White House Office of National Drug Control Policy (ONDCP) has begun several interagency initiatives that emphasize the centrality of the recovery orientation to addressing SUDs, the need for recovery support services, and the importance of eliminating legal barriers to recovery (e.g., restrictions on housing and student loans for persons with a drug related criminal history). ONDCP created a recovery branch that engages federal partners, state and local governments, membership and advocacy organizations, service providers, and other stakeholders in the design and development of policies, systems, services, communication campaigns, and other activities that support long-term recovery (Office of National Drug Control Policy, 2011). One of the key agencies with which ONDCP is working is the U.S. Department of Education. The Department of Education has also embraced a recovery focus and adopted the goal of providing a continuum of recovery supports at all levels in academic settings (Dickard, Downs, & Cavanaugh, 2011).

Finally, the growing emphasis on recovery-supportive policy is not restricted to the United States. The United Kingdom is undergoing its own system transformation at the service and policy levels (United Kingdom Drug Policy Commission Consensus Group, 2007; Best, 2012). The UK Home Office oversees most drug and alcohol policy in England and Wales and has endorsed recovery as a goal of treatment services. This shift followed an earlier change in Scotland, whose government's ‘Road to Recovery’ (Scottish Government, 2008) is a blueprint to system transformation.

3. Need for recovery support services

The policy context outlined above creates an extraordinary opportunity to expand recovery support services. One first must ask however, what needs and preferences would individuals seeking such services bring with them and how should services respond. To that end, it is useful to examine clients' expectations of and experiences with treatment as currently delivered. In a sample of 312 individuals entering publicly funded outpatient treatment in New York City, 71.8% reported expecting the program to help “very much” with their problems and needs, and another 23.7%, “quite a bit” (Laudet, Stanick, & Sands, 2007). Yet 60% of these clients left treatment before completion, a finding on par with the national average (Substance Abuse and Mental Health Services Administration Office of Applied Studies Treatment Episode Data Set (TEDS) 2005 (TEDS), 2005, 2008).

A subsequent study examined why clients left the program and whether they felt there was anything the program could have done differently to keep them engaged in services longer. Client answers fell into one of three broad categories: need for social services (54.2%—job training, help with housing, childcare, stable housing), need for more supportive staff (25.8%—e.g., encouraging, trusting and caring), and need for greater schedule flexibility to accommodate other responsibilities, including work (20%; Laudet, Stanick, & Sands, 2009).

These findings resonate with the results of another qualitative study examining current challenges and life priorities in a sample of 356 community-based persons in abstinent recovery from severe polysubstance dependence (Laudet & White, 2010). Participants' responses were examined as a function of how long they had been abstinent (‘recovery stage’): under 6 months (28%), 6–18 months (26%), 18–36 months (20%), and over 3 years (26%). Across recovery stages, working on one's recovery (e.g., staying sober, ‘making recovery a priority’) was consistently cited as the top priority (cited by 34 to 49% across stages); notably, employment was the second most frequently mentioned priority at all stages of recovery, cited by the same percentage of persons in recovery over 3 years as working on one's recovery (34.1% each).

These findings suggest that challenges remain long after abstinence is attained, most notably employment and education, family/social relations, and housing. This is consistent with expert judgments that reducing or eliminating substance use is necessary but often not sufficient for recovery (McLellan, McKay, Forman, Cacciola, & Kemp, 2005). Thus it appears that at all stages of recovery from initiation (e.g., treatment entry) to sustained recovery (>3 years), abstinence is best regarded as a means to an end rather than as an end in itself. The

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end goal is improvement in key areas of life that were impaired by chronic SUD, emphasizing the need for coordinated and comprehensive services consistent with the ROSC model described earlier.

Recovery oriented services should be tailored to the needs of the population that is seeking/maintaining recovery. For example, given the importance of securing employment as a recovery goal, a recent study examined predictors of employment status in a community-based sample of individuals at various stages of recovery (Laudet, 2012). Slightly under one half (44.4%) were employed part- or full-time. In multivariate analysis, four variables predicted employment status: being male and being Caucasian both significantly increased the odds of being employed whereas indices of chronic mental and physical health problems each decreased the odds of being employed by about half. Notably, no index of substance use (i.e., lifetime severity, use past year, abstinence duration) predicted employment status.

These findings lead to an examination of the prevalence and consequences of chronic mental health and medical conditions in SUD affected individuals. In that sample of individuals with a history of chronic SUD (a study eligibility requirement), one half (53.1%) reported one or more chronic medical conditions at study intake and 38.8% were being treated for a chronic mental health disorder. In addition to the impact of these conditions on employment, they were also associated with higher stress levels, a factor consistently implicated in relapse to substance use (Laudet, Magura, Vogel, & Knight, 2004; Titus, Dennis, White, Godley, Tims, & Diamond, 2002). As may be expected, having a chronic medical condition was also associated with higher healthcare utilization in the past year, namely twice as many doctor visits (6.9 versus 3.7, $F = 13.82$, $p < .001$) and three times as many hospitalizations (24.9 versus 8.4% in those without a chronic medical condition, chi sq. 16.97, $p < .001$). Consequences of chronic mental health conditions on recovery-related domains included lower employment, higher levels of stress (mean = 6.82 versus 6.06 among persons without a chronic medical condition, $F = 6.1$, $p < 05$), and lower quality of life. In recent studies, the latter has emerged as a significant predictor of greater commitment to abstinence (Laudet & Stanick, 2010) and of continuously sustained abstinence for up to 2 years hence (Laudet, Becker, & White, 2009). Taken together, these early findings highlight the prevalence of chronic medical and mental health comorbidities in persons in recovery from chronic SUD. Addressing these conditions is an important part of recovery support services as they may constitute obstacles to sustained recovery.

In this vein, there are potential benefits to integrated care models in which medical services and SUD treatment services are co-located (Butler et al., 2008). Integrated care models are associated with improved SUD treatment outcomes (Friedmann, Zhang, Hendrickson, Stein, & Gerstein, 2003; Weisner, Mertens, Parthasarathy, Moore, & Lu, 2001; Willenbring & Olson, 1999) and improved health outcomes (Friedmann, Hendrickson, Gerstein, Zhang, & Stein, 2006; Parthasarathy, Mertens, Moore, & Weisner, 2003). In a recent randomized trial examining the effects of a continuing care model over 9 years after SUD treatment entry, patients receiving integrated care (i.e., yearly primary care, and specialty substance abuse treatment and psychiatric services when needed) had twice the odds of achieving remission (i.e., abstinence or non problematic use) at follow-ups as those in standard care (Chi, Parthasarathy, Mertens, & Weisner, 2011).

Integrated care may also promote SUD recovery initiation. Studies of reasons for seeking SUD treatment have documented the role of healthcare professionals in patients' realization that they need to address their substance use and to seek help (Orford et al., 2006). Integrating SUD care with primary care is also likely to improve the outcomes of medical conditions: optimal treatment of numerous medical disorders requires identification, intervention, and treatment of any underlying SUD that may interfere with treatment adherence or aggravate preexisting conditions (Alter et al., 1999; Lange & Hillis, 2001; Mann, Smart, & Govoni, 2003; Mertens, Lu, Parthasarathy, Moore, & Weisner, 2003; O'Keefe, Bybee, & Lavie, 2007).

4. Recovery support services: brief overview of existing models

A key premise underlying recovery supports is that addiction is typically a chronic rather than an acute condition. While a chronic condition cannot be 'cured', the symptoms can be arrested and the condition managed using professional and/or peer-driven services supplemented with self-management, based on the individual's needs, resources and remission stage. The symptom management approach is widely used and has proven effective to improve long-term outcomes for a range of chronic conditions, including asthma, cancer, diabetes, depression, and severe mental illness (Bodenheimer, Wagner, & Grumbach, 2002a; Bodenheimer, Wagner, & Grumbach, 2002b; Huber, 2005; Institute of Medicine, 2001; McLellan et al., 2005; Weisner & McLellan, 2004). That said, "outcome" in a recovery framework goes beyond questions of symptomatology to also encompass quality of life.

A number of recent articles and monographs review existing recovery support services (RSS) and the emerging science supporting the approach (Kaplan, 2008; Sheedy & Whitter, 2009; White, 2008, 2009). RSS can be delivered by professionals and/or by peers. In the SUD field, continuing care or aftercare, a stepped down course of services typically following intensive inpatient or residential treatment, is a form of *professionally-driven recovery support* that has been heavily practiced and researched (McKay, 2001; McKay, 2009; McKay et al., 2009).

More recently, innovative forms of professionally-driven RSS have been developed and shown to be effective, including telephone-based continuing care (McKay, Lynch, Shepard, & Pettinati, 2005) and regular recovery management check-ups (RMC), which monitor clients' status, minimize relapse risk and provide linkage to services after relapse to shorten the cycle (Scott, Dennis, & Foss, 2005; Scott, White, & Dennis, 2007). RMC uses such techniques as motivational interviewing to provide personalized feedback and to resolve ambivalence about substance use, treatment linkage, engagement and retention protocols to increase the amount of treatment received. RMC has been shown effective in randomized clinical trials (Scott & Dennis, 2009) with positive outcomes in longitudinal studies of up to 4 years, resulting in quicker return to services when needed, fewer substance related problems per month and more total days of abstinence compared to patients in the control condition (Dennis & Scott, 2012). Similar findings have emerged for persons dually-diagnosed with an SUD and a mental health disorder (Rush, Dennis, Scott, Castel, & Funk, 2008). Moreover, economic analysis suggests that while adding RMC to outcome monitoring does somewhat increase the upfront costs of service, the increase appears modest relative to the potentially substantial savings over time (Dennis, French, McCollister, & Scott, 2011).

Peer-based recovery support consists of giving and receiving nonprofessional, nonclinical assistance to achieve long-term recovery. This support is provided by individuals who have experiential knowledge (Borkman, 1999) and work as volunteers or as paid service workers (Kaplan, 2008) to assist others in initiating and maintaining recovery and enhancing their quality of life (White, 2009). Social support, particularly having a recovery-oriented network, predicts successful recovery (Humphreys, Mankowski, Moos, & Finney, 1999; Humphreys, Moos, & Cohen, 1997; Weisner, Delucchi, Matzger, & Schmidt, 2003). Many recovering persons report that being in the company of other recovering individuals is helpful (Granfield & Cloud, 2001; Laudet, Savage, & Mahmood, 2002; Margolis, Kilpatrick, & Mooney, 2000; Nealon-Woods, Ferrari, & Jason, 1995).

Peer-based approaches have been implemented extensively to address a range of chronic conditions (e.g., asthma, cancer, psychiatric

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illness and diabetes—Greenfield, Stoneking, Humphreys, Sundby, & Bond, 2008; Kyrouz, Humphreys, & Loomis, 2002). Among persons dually-diagnosed (SUD and mental health), a randomized clinical trial using a prospective design with repeated measurements documented the effectiveness of adding a peer-based component to clinical treatment in reducing substance use (Rowe et al., 2007) and peers have also proven effective at designing and disseminating mutual help related public service announcements to increase involvement in mutual aid/self-help groups for a range of chronic problems, including SUD (Humphreys, Macus, Stewart, & Oliva, 2004).

Peer-based recovery support services can be delivered in a variety of community-based venues—e.g., recovery community centers, faith-based institutions, jails and prisons, health and social service centers, and addiction and mental health treatment agencies (Faces and Voices of Recovery, 2010). Several types of peer-based recovery support services are increasingly taking hold in the community. One is *recovery coaching* whereby a peer mentors the individual seeking recovery (e.g., assists in setting recovery goals and a recovery plan, serves as role model in recovery); this coaching includes helping connect the individual to recovery-supportive resources needed to restructure life (e.g., professional/nonprofessional services including housing and employment) and serving as an advocate and liaison to formal and informal community supports, resources and recovery-supporting activities. To date, peer recovery coaching has not been evaluated systematically. However, a clinical trial of an integrated case management including using peer coaches to help integrate SUD treatment and child welfare services for parents in substance-involved families enhanced access to treatment and resulted in increased family reunification rates compared to standard care (Ryan, Marsh, Testa, & Louderman, 2006). Moreover, reports compiled in the context of broader recovery oriented efforts have provided emerging evidence for the benefit of peer coaching (Mangrum, 2008) as discussed later in this section.

Sober residences are another type of peer-based recovery supports. These homes offer mutual help-oriented, financially self-sustaining, self-governed, democratic communal-living environments where individuals in recovery can reside for as long as they choose after inpatient treatment or incarceration, during outpatient treatment or as an alternative to treatment (Polcin, 2009). The most prevalent model of sober residences is Oxford House (OH) with 1300 houses in the U.S. (Jason & Ferrari, 2010). The benefits of the model have been extensively documented in prospective peer-reviewed studies across subpopulations (Alvarez, Adebanjo, Davidson, Jason, & Davis, 2006; Jason, Davis, Ferrari, & Bishop, 2001; Majer, Jason, Ferrari, & North, 2002; Millar, Aase, Jason, & Ferrari, 2011). Across studies, OH living is associated with greater rates of abstinence from substance use and with improvements in related functioning (e.g., higher employment rates—Jason, Aase, Mueller, & Ferrari, 2009; Jason, Davis, & Ferrari, 2007; Jason, Olson, Ferrari, Majer, Alvarez, & Stout, 2007; Majer, Jason, Ferrari, & Miller, 2011). The cost effectiveness of the model has also been documented in randomized studies (Lo Sasso, Byro, Jason, Ferrari, & Olson, 2012; Olson, Viola, Jason, Davis, Ferrari, & Rabin-Belyaev, 2006). Other sober residence models have also been examined albeit less extensively. For example, an 18 month follow-up study of residents of Sober Living Houses documented improvements in substance use and several recovery-relevant areas such as employment (Polcin, Korcha, Bond, & Galloway, 2010).

Finally, an innovative model of peer-based recovery support is emerging on college campuses nationwide. The *Collegiate Recovery Community* model (CRC) was developed in response to the need of college students with a history of SUD who have successfully remitted from the disorder and now seek to pursue educational goals. The high prevalence of substance use on college campus represents a threat to recovery that may lead to foregoing or postponing college in the absence of a readily available sober network (U.S. Department of Education Higher Education Center for Alcohol and Other Drug Abuse and Violence Prevention, 2010; Woodford, 2001). Although the CRC model is new and the range of services varies across sites (Bell et al., 2009), central elements of the model include a peer-driven approach informed by 12-step tenets, and services such as drug-free housing, onsite peer support and counseling provided by a small staff, as well as opportunities for sober recreational activities, relapse prevention and life skills workshops (Baker & Harris, 2010; Botzet, Winters, & Fahnhorst, 2007; Harris, Baker, Kimball, & Shumway, 2008; Laitman & Lederman, 2007; Smock, Baker, & Harris, 2011). As described in the few published reports, CRCs seem consistent with the continuing care paradigm within a "recovery management" system that experts recommend (Godley, Godley, Dennis, Funk, & Passetti, 2002). CRCs are also responsive to calls for appropriate campus-based infrastructure to support recovering students (Misch, 2009), with recent shifts in drug policy (Office of National Drug Control Policy, 2010) and with the U.S. Department of Education's goal of ensuring a continuity of care from high school to college to post-graduation (Dickard et al., 2011). CRCs remained few and largely unnoticed until recently. In the past decade, growing concerns about substance use on campus and federal agencies' focus on building a community-based continuum of care system for youths have fueled a five-fold increase in the number of CRPs, from 4 in 2000 to 32 in 19 states today. Although the model has yet to be formally evaluated, site-specific reports document encouraging outcomes-low relapse rates, above school average GPAs, graduation rates, and perceived helpfulness (Baker, Laudet, & Harris, 2011; Bell et al., 2009; Cleveland, Harris, Baker, Herbert, & Dean, 2007; Harris et al., 2008). In the same vein as the CRC model though professionally- rather than peer delivered are recovery high schools (Moberg & Finch, 2008) that typically function as charter schools in a public school system and serve students who recently left SUD treatment. This model is currently undergoing systematic evaluation.

5. Evaluation evidence at the system level

It is much easier to evaluate individual programs (e.g., An Oxford House) than system-level efforts to support recovery. The RCSP has not been formally evaluated in a rigorous fashion. However, outcome and process measures from administrative data suggest positive outcomes at the 6-month follow-up on substance use, criminal involvement, psychological housing and employment outcomes (Faces and Voices of Recovery, 2010).

As is the case for the RCSPs, there has been no rigorous nationwide evaluation of the ATR program. However a handful of studies conducted in ATR-funded states provide encouraging results (White, 2009). For example, a study of drug court participants who received services through ATR found that "among the specific types of recovery support services, those that were most closely related to the process of recovery, such as individual recovery coaching, recovery support group, relapse prevention group and spiritual support group, were more strongly associated with successful outcomes" (Mangrum, 2008, p. 3). In Washington state ATR client outcomes were compared to those of clients receiving SUD treatment only, using a multistep procedure based on propensity scores and exact matching on specific variables (Krupski, Campbell, Joesch, Lucenko, & Roy-Byrne, 2009). ATR services were associated with increased length of stay in and completion of treatment, and increased likelihood of becoming employed.

Finally, while the full ROSC model has not been formally evaluated, statewide data from Connecticut—the first to start taking steps to develop a true ROSC beginning in 1999 (Kirk, 2008) provide early support for the effectiveness and cost effectiveness of the approach: this includes a 24% decrease in expenses, 25% decrease in annual cost per client, a 46% increase in number of people served statewide, 62% decrease of acute care, 40% increase in outpatient care and 14% lower cost with recovery support (Kirk, 2010). Overall, a growing menu of professionally- and peer-delivered recovery support services is being

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developed and implemented, most under the aegis of federal funding agencies, principally SAMHSA. None of the peer-driven strategies have been formally evaluated; state-level data report encouraging outcomes. However these findings are preliminary; they emanate from program reporting data rather than from rigorously designed evaluation studies. Moreover, the stability of the documented improvements over time remains to be determined.

6. Future challenges and possibilities

Because severe SUDs are typically chronic conditions (Dennis, Foss, & Scott, 2007; Dennis, Scott, Funk, & Foss, 2005; McLellan et al., 2000), continuing care strategies and the emerging model of recovery support services that adopts a comprehensive, coordinated and chronic care approach to addressing SUD appear to hold promise. Transforming the SUD service system to a recovery oriented model presents numerous complex challenges. At the SUD service system level, challenges include defining recovery values, familiarizing the workforce with the new model (i.e., a recovery, continuing care orientation), communicating steadily about the emphasis on the recovery initiative and what it would mean to everyone in the system, conveying the broad vision and breaking it into successive steps to achieve that vision, helping agencies self-evaluate their recovery orientation as the transformation process unfolds, strengthening consumer involvement in the system as bona fide partners and expanding peer-based recovery support services, building the care continuum beyond intensive episodes of services (and redefining 'episode of care') with increased access and improved linkage to follow-up care, reviewing existing regulations that may be at odds with the new model and adapting them to promote the adoption of the recovery orientation at all levels of the system (Kirk, 2008). More broadly, since ROSC requires the coordination of services *across* systems that have historically functioned independently, transforming a system to a recovery orientation will require changes and coordination in terms of regulations, financing and ideology.

Individuals leading system transformation toward a true ROSC model have reflected on the process and lessons learned (Kirk, 2008, 2010; Tondora & Davidson, 2006) and enumerated key principles that include primacy of participation, promoting access and engagement, ensuring continuity of care, employing strengths-based assessment, offering individualized recovery planning, functioning as a recovery guide, community mapping, development, and inclusion, and identifying and addressing barriers to recovery. The City of Philadelphia was among the early adopters of the ROSC model for its behavioral health system under the leadership of Dr. Arthur Evans. Evans (2007) has described the ongoing system-transformation process as unfolding in three overlapping stages: aligning concepts, aligning practices, and aligning context. Lessons learned include the importance of recognizing that the transformation involves a total system change, not just one program rather than a collection of discrete initiatives; the importance of identifying and cultivating staff at all level whose leadership and other skill sets can provide a model of a true recovery-oriented system; focusing on including non-specialty services that are critical to recovery such as like employment, recovery support services, physical and mental health services; shifting the financing of the overall system to support a continuing-care model across agencies; and the need to continuously identify "lessons learned" as the process.

In addition to the Access to Recovery grants (ATR) discussed earlier that aims to foster system transformation to a ROSC model at the state level, system transformation resources are also available from such SAMHSA funded organization as the Addiction Technology Transfer Center that provides factsheets, monographs, trainings and webinars targeted to the various stakeholder groups involved in system transformation.

To meet the anticipated increased demand for SUD and recovery support services resulting from these ongoing changes, the system will need to develop and increase the work force. In that regard, capitalizing on the experience of the recovery community appears highly promising and desirable, especially in light of the central role that peers play in recovery support models.

A critical question regarding supporting workforce changes is that of reimbursement for these nonclinical services. In 2007, federal health officials ruled that states could bill for such services under Medicaid if the state had a system in place to train and certify peer providers. In July 2010, the Office of National Drug Control Policy (ONDCP) and Faces & Voices of Recovery held a roundtable on peer recovery support services ('recovery management in healthcare reform') gathering representatives from various stakeholder groups. Proceedings from the roundtable were summarized in a white paper (Faces and Voices of Recovery, 2010) that synthesizes and integrates the insights, challenges and ideas generated at the meeting. Discussion elements included types of peer recovery support roles, as well as qualifications and requirements for these roles, core competencies, required knowledge and skills, peer services quality management and outcomes and importantly, the basis for peer support service reimbursement rates. There was consensus for the need for a process of accreditation and credentialing.

Most recently, Faces and Voices of Recovery issued a framework and a set of principles and guidelines to accredit Recovery Community Organizations (RCOs), with the stated purpose of 'supporting the development of recovery-oriented community-based institutions and programs where peer services are delivered and a commitment to quality assurance and integrity of those services' (Burden, Hill, & Zastowny, 2012, p. 1). Finally, a number of strategies may be worth considering when seeking to implement and broadening the availability of recovery support services. One is to explore the feasibility of capitalizing on the emerging development of patient centered integrated care medical homes where recovery support services could be added, either onsite or off-site through referrals. Given the high prevalence of physical and mental health comorbidities among persons in recovery, especially under-served persons who are the primary target of health homes, the provision of integrated recovery support services in that context may hold promise.

Another promising idea is to capitalize on health technology such as Internet-based resources and smart phones, to provide recovery supports. This could be particularly valuable for individuals who may not be otherwise able to access available services, such as rural and frontier residents and individuals with disabilities. A recent study examined the outcomes of a Web-based multimedia recovery support intervention offered as continuing care following residential SUD treatment. The intervention included tailored clinical content delivered in a multimedia format as well as access to a recovery coach (Klein, Slaymaker, Dugosh, & McKay, 2012). While utilization decreased over time as reported with other disease management programs, there was a significant association between the number of modules accessed and abstinence rates 1 year post-treatment, controlling for motivation, self-efficacy, and pretreatment substance use.

Policymakers, providers, practitioners, researchers, recovery support staff, and others engaged in the development and funding of recovery-oriented systems of care frequently seek data to inform their decisions. Expert panels have recently noted that to enhance the availability and adoption of recovery support services, a firmer research base must be established (Faces and Voices of Recovery, 2010, p.22). This includes the need to identify effective and cost-effective recovery-promoting strategies and services in general and for specific subgroups of individuals. In particular, research is needed on long-term outcomes and among persons who recovered without seeking professional treatment, a historically neglected group.

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To date, individual elements of the recovery oriented systems of care model have been evaluated separately and appear useful but the full ROSC model has not been subjected to a rigorous evaluation. A white paper reviewed 375 studies in the SUD and other chronic disease field to synthesize the state of and need for research support for the guiding principles of recovery and elements of the ROSC model. The authors concluded that 'While many of the principles and systems elements are easily supported by existing literature in the addictions field, research supporting others was more difficult to find. In some circumstances, they were supported by literature outside of addictions research, primarily through the mental health and public health research fields' (Sheedy & Whitter, 2009, p. 39). In particular they noted a lack of evidence relevant to ROSC's conceptual framework and outcomes in practice.

In this regard, we note several obstacles to building the necessary evidence base needed to guide the development of recovery support services. One is that the field currently lacks a psychometrically valid, multidimensional measure of recovery outcomes to quantify the effectiveness of services and to document change over time within individuals across key recovery domains (Laudet, 2009). When formulating its consensus definition of recovery, the Betty Ford Institute panel recommended the World Health Organization's Quality of Life Instrument, the WHOQOL (World Health Organization Quality of Life Group, 1994) be considered as a feasible starting point to develop a recovery measure (Belleau et al., 2007). The WHOQOL and its abbreviated version, the WHOQOL-BREF (World Health Organization Quality of Life Group WHOQOL, 1998) assess objective functioning and satisfaction with functioning in four domains previously identified as central to recovery: physical, psychological (including spiritual) and social health, as well as living environment—work, housing and finances. Research is needed to assess the feasibility of the WHOQOL to quantify recovery outcomes and to identify recovery specific dimensions that are untapped by the instrument and for which recovery-specific items or modules need to be developed.

A second obstacle to building an empirical basis for recovery supports has been and remains the research funding environment. Grant reviewers in federal agencies tend to be more familiar with studies of professionally delivered, manualized interventions and with designs that include a 'true' baseline—that is, where participants are recruited when they first initiate recovery. In addition, the gold standard design in biomedical research, the randomized clinical trial (RCT), may be ill suited to addressing some recovery oriented questions, especially regarding community based peer recovery supports. These desirable features of professional treatment research may not map well to research on recovery support services, making it harder to persuade funders to invest in studies of the sorts of interventions now increasingly being implemented nationwide. A handful of researchers have developed professionally delivered peer-support focused interventions to conduct grant-funded randomized clinical trials of 12-step inspired strategies (Nowinski, Baker, & Carroll, 1992; Project MATCH Research Group, 1998; Timko & Debenedetti, 2007). However, strategies delivered in an organized and structured setting such as recovery coaching, recovery centers, and other forms of recovery management can and ought to be evaluated and rigorous designs used whenever possible.

In closing, we note that critical to understanding and implementing recovery-oriented services is that such programs not be conceptualized merely as a novel "add-on" to an existing, otherwise unchanged care system. Promoting recovery ought to be the overall goal of services, not an ancilliary, special, and/or self-contained initiative to be abandoned the moment a project ends. The goal is to *transform the entire treatment system to a recovery supporting system.* We hope that this paper will stimulate recovery oriented research to provide the evidence base needed to maximize opportunities for recovery in services and policy.

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