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ARTICLE

The Future of Supported Employment for People with Severe Mental Illness

Robert E. Drake
Dartmouth Medical School

Gary R. Bond
Indiana University-Purdue University Indianapolis

This paper reviews current research on innovative attempts to improve the dissemination and effectiveness of supported employment. The domains of active investigation include: (1) organization and financing of services, (2) disability policies, (3) program implementation and quality, (4) motivation, (5) job development, (6) illness-related barriers, (7) job supports, (8) career development, and (9) new populations. Work in each of these areas offers the promise of improving services and outcomes in the near future.

Keywords: employment, rehabilitation, vocational, disability

Introduction

Over the past 20 years, supported employment has enabled many people with psychiatric disabilities to attain competitive employment, has energized the field of psychiatric rehabilitation with a truly evidence-based intervention, and has enhanced the field's optimism regarding recovery. At the same time, it is clear that much remains to be accomplished. What we hoped for in 1998—that ineffective practices such as day treatment would be largely replaced by supported employment and other client-centered, empirically-based practices—has not been extensively implemented. Unfortunately, vocational and mental health services over most of the U.S. continue to be dominated by antiquated models, financing systems that do not align with evidence-based practices, institutional resistances to change, and poor outcomes (IOM, 2006; NAMI, 2006; New Freedom Commission, 2003).

The limits of supported employment have become clear (Bond, 2004). These can be summarized as follows: First, not all persons with psychiatric disabilities are motivated to pursue work (Mueser, Salyers, & Mueser, 2001; Rogers, Walsh, Masotta, & Danley, 1991). Some have adopted meaningful roles besides competitive employment, but many others avoid work because they fear losing benefits (MacDonald-Wilson, Rogers, Ellison, & Lyass, 2003),

lack confidence (Westermeyer & Harrow, 1987), receive little encouragement from their counselors and psychiatrists (West et al., 2005), or are unable to obtain appropriate help (Hall, Graf, Fitzpatrick, Lane, & Birkel, 2003). Second, approximately one-third of those who enter supported employment programs are unsuccessful in finding a competitive job (Bond, 2004). Some of these individuals decide not to pursue work when they understand the potential loss of benefits, but others have difficulties succeeding due to psychiatric illnesses, cognitive deficits, inadequate services, and other barriers. Third, many of the individuals who obtain competitive employment have limited success, such as short-tenured jobs or negative job endings (Becker et al., 1998; Mueser, Becker, et al., 2001). Fears of losing insurance, performance problems, episodes of illnesses, and other difficulties attenuate their successes. Fourth, of those who become steady workers, few leave the disability system entirely, perhaps due to the health insurance trap (Becker, Whitley, et al., 2007; Salyers et al., 2004). Their trajectories toward independence appear to be constrained by disability and insurance regulations. Finally, consistent with the well-recognized science-to-service gap in U.S. health care, the adoption of evidence-based supported employment across the U.S. progresses more slowly than expected (IOM, 2006; NAMI, 2006; New Freedom Commission, 2003).

How can these limitations be addressed? The purpose of this paper is to anticipate the evolution of vocational services for persons with severe mental illnesses. While we obviously cannot predict the future, we can describe current research directions, some of which already show promising initial results, with hopes that several of these areas of investigation will expand the current horizons of supported employment. To identify future directions, we searched the published literature using standard sources (MEDLINE, PubMed, PsychINFO, Scopus), reviewed currently funded grant titles (NIMH, NIDRR, and the Social Security Administration), and, when possible, discussed the current research with individual investigators.

Future Research Directions

Our search identified nine areas in which innovation promises to amplify the successes of supported employment: (1) organization and financing of services, (2) disability policies, (3) program implementation and quality, (4) motivation, (5) job development, (6) illness-related barriers, (7) job supports, (8) career development, and (9) new populations. We next review research in each of these areas.

1. *Organization and Financing of Services*

Health care in the U.S. is organized to maximize profits rather than to optimize quality and outcomes (Wennberg, 2004). Economic incentives reward expansion and non-collaborative care rather than organizational accountability. Enormous regional variability reflects the poor state of clinical evidence and the lack of patient involvement in decision-making. Organization and financing are critical to evidence-based services for persons with mental health problems also (Goldman et al., 2001). Financial and organizational incentives of Medicaid, Medicare, and other federal and state programs must be aligned with evidence-based practices (Crowley & O'Malley, 2007).

With respect to vocational services, research strongly supports the principle of integrating vocational and clinical services at the client level (Cook et al., 2005; Drake, Becker, Bond, & Mueser, 2003). The individual client should be able to relate to a single team of providers who provide a consistent message and help him or her to pursue employment as well as other goals. Non-integrated services are typically less effective because of fragmentation, poor access, inadequate communications between providers, placing the burden of integration on the client, conflicting messages, and other reasons.

Despite the evidence, service integration is difficult to create, for a variety of reasons, but largely because mental health and vocational rehabilitation maintain separate organizations, finances, workforces, records, and regulations. The Johnson & Johnson-Dartmouth Community Mental Health Program has demonstrated that these barriers can be overcome in individual states and programs in which vocational rehabilitation and mental health are committed to creating and monitoring supported employment programs conjointly (Becker, Lynde, & Swanson, 2008; Drake, Becker, Goldman, & Martinez, 2006). For example, in the state of Maryland the two agencies utilize common software and share intake and approval processes (Becker, Baker, et al., 2007).

Truly integrated services are still rare in the U.S. Programs at any level appear to be disposed naturally to protect their autonomy, budgets, and boundaries rather than to share resources and collaborate for the good of their clients. Mental health and vocational rehabilitation agencies almost certainly need a directive to further their collaborations. At the federal level, collaboration will probably require legislation. At the state and local level, programs need some clear direction regarding evidence-based practices and financing. Currently, state mental health and vocational services are financed largely by two federal sources

(plus state matching funds): Medicaid, which is not aligned with evidence-based practices and insists that employment services do not constitute a medical treatment (Goldman et al., 2001), and the state-federal vocational rehabilitation system (Rehabilitation Services Administration), which is only beginning to embrace evidence-based practices and has funding to serve only 5% of the many people with disabilities who need services (Carl Suter, CSAVR, personal communication).

Supported employment is relatively inexpensive and highly cost-effective relative to other forms of vocational services (Latimer, Bush, Becker, Drake, & Bond, 2004). Nonetheless, financing is a major barrier. For supported employment to be widely adopted, financing must be addressed more systematically than it has in the past. Among the many different strategies policymakers have tried, three warrant mention: incentive financing, blended funding, and converting ineffective practices to supported employment.

Incentive financing has included rewarding mental health centers for improved employment rates for their mental health clients. This approach has been used by state mental health authorities in New Hampshire (Rapp, Huff, & Hansen, 2003) and Ohio (Hogan, 1999) with demonstrable success. Sustaining these efforts requires ongoing commitment from state leaders. A second approach currently enjoying popularity with the federal-state vocational rehabilitation system is called results-based funding or performance-based contracting. Instead of using traditional fee-for-service arrangements, this approach reimburses supported employment programs when clients achieve milestones, such as obtaining a job or maintaining employment for a set period of time. Preliminary evaluations of this model are encouraging (Gates et al., 2005; McGrew, Johannesen, Griss, Born, & Katuin, 2005). Despite fears that results-based funding would lead to "creaming" (serving clients who are most easily placed), these evaluations have not shown this.

Blended funding involves systematic bundling of Medicaid and state vocational rehabilitation dollars in a way that reduces risk for provider agencies. Several states are now showing ingenuity in implementing such reimbursement schemes (Becker et al., 2008).

Reallocating funds from ineffective practices to supported employment is a cost neutral strategy that has been successfully implemented in a few day treatment conversion demonstration projects (Drake et al., 1994). Despite the appeal of this approach, it has not been extended beyond these initial demonstrations.

2. *Disability Policies*

Current disability policies socialize people into disability, offer disincentives for returning to employment, and militate against supported employment (GAO, 2007). People are forced to spend months and sometimes years proving that they are totally disabled in order to obtain health insurance, and they are understandably fearful of losing their insurance through continuing disability reviews (IOM, 2007). Under the current system, each year only 0.2% of Social Security beneficiaries (SSI and SSDI) leave benefits entirely by returning to work (IOM, 2007). Many studies show that disability benefits in the U.S. are negatively correlated with employment (Bond, Xie, & Drake, 2007; Cook et al., 2005; Ellinson, Houck, & Pincus, 2007; McGurk et al., 2003; Rosenheck et al., 2006; Tremblay et al., 2006). Further, in a study of supported employment in the European Union, Burns and colleagues (2007) found that the degree of economic disincentives for working within benefits rules across several countries predicted the success of people with schizophrenia in supported employment programs.

Disability policies could be improved in several ways. First, mental health should be in the mainstream of disability policy. People with psychiatric disabilities already represent a third of those on SSI and SSDI and are the fastest growing group in both programs (IOM, 2007). Second, the current disability/income support programs' disincentives to return to work, including adverse income replacement formulas (a beneficiary loses too much income support immediately upon return to work), loss of health benefits by working successfully, and lack of a short-term disability policy to avoid a protracted period of separation from the workforce while establishing disabled status, need to be changed. Third, policy limitations within vocational rehabilitation, such as case closure formulas for rehabilitation workers that create incentives to under-serve people with severe or complicated problems, could be re-formulated. Fourth, all persons with psychiatric disabilities need easy access to evidence-based practices, not only supported employment but also systematic medication management and psychosocial interventions that are demonstrably effective. Finally, policies should emphasize prevention. People who develop a severe mental illness need health care and supports, not a lifetime of poverty and dependence on the disability system. Providing people with health insurance and access to supported employment and other evidence-based practices early in the course of illness is likely to prevent disability for many.

Recognizing that current policies create disincentives, the Social Security

Administration is funding several projects that examine alterations of these policies. Programs that may affect people with severe mental disorders include the Accelerated Benefits Demonstration, which will provide immediate health benefits and employment supports to newly entitled Social Security Disability Insurance beneficiaries who have medical conditions that are expected to improve with access to appropriate medical care; the Benefit Offset Four-state Pilot Demonstration and the Benefit Offset National Demonstration, which will study varying benefit offsets in relation to employment outcomes; the Disability Program Navigator, which provides a variety of employment services to individuals with disabilities seeking employment; the State Partnership Initiative, which fosters the development of community employment resources for individuals with disabilities; and the Youth Transition Demonstration, which helps youth ages 14–25 with transitions from school to employment.

3. *Program Implementation and Quality*

Increasing the quality of vocational services across the U.S. will require not only addressing the financing and organizational problems discussed above but also learning how to implement, maintain, and update supported employment programs as research develops new and effective techniques (Bond et al., 2001). We know that high-fidelity implementation can be accomplished in 6-12 months and maintained for another 12 months with the aid of implementation resource kits and expert trainers (McHugo et al., 2007). We also know that high fidelity results in better employment outcomes (Becker, Smith, Tanzman, Drake, & Tremblay, 2001; Becker, Xie, McHugo, Halliday, & Martinez, 2006) and that supported employment can be disseminated gradually across large areas by starting with early adopter programs and steadily adding programs (Becker et al., 2008; Drake, Becker et al., 2006).

Given the realities of funding, shifting priorities, and workforce turnover, additional mechanisms will need to be developed to ensure maintenance of quality. Some states are relying on technical assistance centers and external fidelity monitoring (e.g., Biegel, Swanson, & Kola, 2007; Salyers et al., 2007). The use of fidelity monitoring was an effective quality improvement tool in the National EBP Project (McHugo et al., 2007) and seems to be important in other projects as well (e.g., Boyce et al., 2008; van Erp et al., 2007; Waghorn et al., 2007). The MHTS (Frey et al., 2008) and a large VA dissemination of IPS (R. Rosenheck, personal communication, August 10, 2007) are also using fidelity assessment as the lynchpin of their dissemination efforts.

Over the long run, external fidelity monitoring may prove too expensive and time-consuming. Other strategies might include monitoring of services and outcomes through electronic medical records, including direct client data entry (Drake, Teague, & Gersing, 2005). The development of client-centered service systems that rely on shared decision-making would be driven by client goals and evidence-based practices (Deegan, 2007). These steps would be in accordance with Institute of Medicine recommendations (IOM, 2006), but mental health systems have been slow to adopt health information technology, client-centered care, and evidence-based practices (New Freedom Commission, 2003). Another possible strategy would be to develop learning communities that would permit programs to support and learn from one another (Wenger, McDermott, & Snyder, 2002). Little mental health research has yet been accomplished in these areas, but the successes in other areas of medicine are promising (e.g., Dorr et al., 2007).

4. *Motivation*

People with mental illness can appear to be unmotivated for work for many reasons. Some clearly become demoralized by the process of receiving mental health treatments, applying for disability benefits, obtaining insurance, experiencing ineffective vocational services, and enduring societal stigma (Estroff, Patrick, Zimmer, & Lachicotte, 1997). Treatment itself can be traumatizing and demoralizing when it emphasizes deficits, chronicity, professional controls, and coerciveness (Rapp & Goscha, 2006). For example, mental health professionals often deliver hopeless messages and inaccurate advice, such as that a disorder and need for medications will be life-long. Once severe mental illness becomes established, so-called "negative symptoms," which include difficulties with motivation, are often part of the illness (Mueser & McGurk, 2004). Further, they can be created or exacerbated by medications commonly used to alleviate symptoms (Buchanan, Kirkpatrick, Heinrichs, & Carpenter, 1990). As discussed above, the process of applying for benefits and insurance can be debilitating. If people do decide to return to work, the rules are extraordinarily complex, the existing vocational rehabilitation system is often unfriendly to people with psychiatric problems, and evidence-based vocational services, such as supported employment, are rarely available (Noble, Honberg, Hall, & Flynn, 1997). Given these realities, it is remarkable that many people with severe mental illnesses still want to work and seek vocational services. For others, motivation appears to be a barrier.

Several approaches to address motivation are being studied. The most obvious is to change the philosophy, milieu, norms, expectations, and services of mental health organizations to emphasize hope, personal involvement, and shared decision-making (Deegan, 2007). For example, several studies show that substituting supported employment for day treatment services results in greater interest and success in competitive employment (Torrey, Clark, Becker, Wyzik, & Drake, 1997). Other common approaches to enhance motivation include assertive outreach to engage people who are frightened (Resnick, Rosenheck, & Drebing, 2006), motivational interviewing to help people identify their goals (Larson et al., 2007), contingency management to reinforce steps toward success (Drebing, Hebert, Mueller, Van Ormer, & Herz, 2006), benefits counseling to enable people to understand exactly how work will affect their entitlements and insurance (Tremblay et al., 2006), and self-help to activate people and increase their hopefulness and pursuit of effective services (Barber, Rosenheck, Armstrong, & Resnick, 2007).

5. *Job Development*

Across studies of supported employment, employment specialists vary widely in their skills and in the employment outcomes of their clients (Drake, Bond, & Rapp, 2006). Many trainers believe that job development skills are the most critical area where employment specialists differ (Swanson, Becker, Drake, & Merrens, 2008). Research shows that job development is critical to the success of supported employment (Leff et al., 2005).

Current approaches to improving job development include a systematic method of approaching employers and framing job matches in terms of their needs (Carlson & Rapp, 2007), monitoring of employment specialists' employer contacts (Swanson, personal communication), entrepreneurial job development (Randall & Buys, 2006), active employer councils (Griffin, Hammis, & Geary, 2007), and many other ideas. Most of these approaches have not been studied empirically.

6. *Illness-Related Barriers*

At least four illness-related barriers are identified in the literature: symptoms of mental illness, cognitive deficits, co-occurring physical health problems, and co-occurring substance use disorders. While not all studies agree (Michon, van Weeghel, Kroon, & Schene, 2005), many studies have found that individuals with greater symptom burdens are less likely to become employed (e.g., Razzano et al., 2005; Salkever et al., 2007) and, when they do become employed, report that symptoms are a barrier to staying employed over time (Becker, Whitley et al., 2007). Similarly, several studies show that cognitive deficits are inversely related to a range of different employment outcomes, including job acquisition, job tenure, hours worked per week, and performance of complex tasks on the job (Gold, Goldberg, McNary, Dixon, & Lehman, 2002; Green, 1996; McGurk et al., 2003). Very few studies have reported employment problems associated with co-occurring physical health problems, but the literature is replete with studies showing excessive physical morbidity and decreased energy in this population (See Chapter 16 in Corrigan, Mueser, Bond, Drake, & Solomon, 2007). Importantly, while co-occurring substance use disorders are highly prevalent among persons with severe mental illnesses (Regier et al., 1990), most empirical studies have not supported the common view that clients with co-occurring disorders have worse employment outcomes (Bell, Greig, Gill, Whelahan, & Bryson, 2002; Drake, Becker, Clark & Mueser, 1999; Sengupta et al., 1998; Swartz et al., 2006).

How should these barriers be addressed in the context of supported employment? One of the fundamental principles of supported employment is of course integration of vocational services with mental health services. It follows logically that the mental health services should be high-quality, evidence-based services, but there has thus far been no study of the quality of medication management and other mental health services in relation to vocational services. The Mental Health Treatment Study (Frey et al., 2008) should provide some data on this issue.

Standard evidence-based supported employment attempts to overcome cognitive deficits by assisting people with job applications and interviews, by matching the person with the job, and by providing individualized supports (Becker & Drake, 2003). As a typical example, an employment specialist might in the process of a standard evaluation determine that an individual has difficulty with complex problem-solving and help him or her to find a job that does not require such skills. Employment specialists who are most inventive in suggesting coping strategies to their clients appear to have the most success in promoting job tenure (McGurk & Mueser, 2006).

The question for researchers is, does a more explicit and technical assessment of cognitive deficits lead to better strategies in relation to job finding, job matching, or job performance? Several researchers have approached this issue using a variety of cognitive interventions (e.g., Bell, Bryson, Greig, Fiszdon, & Wexler, 2005; Hogarty et al., 2004; McGurk, Mueser, Feldman, Wolfe, & Pascaris, 2007). Most of these strategies—education, job matching,

compensatory aids, and cognitive remediation—are described in the previous review by McGurk and Wykes. Other avenues of research being pursued by the National Institute of Mental Health and the pharmaceutical industry involve identifying the neurochemical mechanisms of cognitive deficits and developing medications to enhance attention, concentration, reaction speed, and other specific cognitive problems (Breier, 2005; Harvey, Green, Keefe, & Velligan, 2004; Marder & Fenton, 2004). The current atypical antipsychotic medications show only modest and sometimes mixed effects on the cognitive deficits of people with mental illness and few effects on employment or other functional outcomes (Keefe, Silva, Perkins, & Lieberman, 1999; Percudani, Barbui, & Tansella, 2004; Weickert & Goldberg, 2005; Woodward, Purdon, Meltzer, & Zald, 2005), but this is an area of active research for the future.

People with severe mental illnesses have remarkably poor physical health and tend to receive sub-standard medical care (Bartels, 2004; Cook et al., 2007). Improving their medical care and physical health is a critical goal. Thus far, there are several models for addressing this problem (Bartels, 2004) but few data on comparative effectiveness and no data that we are aware of on the impacts on employment outcomes. Again, the Mental Health Treatment Study (Frey et al., 2008) should provide an empirical view of this issue.

Co-occurring substance use disorders can be effectively treated along with mental illnesses in an integrated fashion (Drake, O'Neal & Wallach, 2008). General guidelines exist for providing supported employment services in the context of integrated dual disorders treatment (Becker, Drake, & Naughton, 2005). Because these individuals do as well as others in supported employment programs, few studies have examined vocational services for them as a specific group. However, Drebing and colleagues (personal communication) are currently studying the effects of contingency management on both substance abuse and employment outcomes.

7. Job Supports

Since jobs for persons with mental illnesses often end prematurely or negatively (Becker et al., 1998; Mueser, Becker & Wolfe, 2001), improving job performance by addressing general supports or specific job-related problems is a critical area. The standard approach in IPS supported employment is to provide whatever supports the client feels would be helpful, including on-site supports to the employee and the employer for those who elect to disclose their disability and off-site supports for those who choose not to disclose, and to help the employee to frame each job as a learning experience that helps one to prepare for the next job. In addition to these basic steps, researchers are studying several approaches to improve the chances of success on individual jobs: group or individual skills training, errorless learning on the job site, compensatory prompts or cognitive training (see review by McGurk and Wykes above), and enhancing natural supports.

Wallace and Tauber (2004) found modest support for augmentation of supported employment with concurrent group skills training, but Mueser et al. (2005) found that the same intervention did not significantly improve work outcomes. Marder and colleagues (personal communication) recently completed a large multi-site randomized controlled trial, which should provide a rigorous evaluation of the effectiveness of this intervention, but results have not yet been reported. If adding a group skills training module to supported employment fails to enhance job success, a more individualized approach to improving skills relevant to a specific job may still be effective. This could be accomplished off-site by role-playing with a job coach or by on-site skills training. Kern, Liberman, Kopelowicz, Mintz, and Green (2002) are investigating the latter strategy by using an errorless learning approach with some early success. In the errorless learning approach, a job skill or social skill on the job is broken down into subunits that can be practiced and learned in a rote fashion.

Another strategy is to enhance the so-called natural supports of co-workers or supervisors. This idea has yet to be studied rigorously (Test & Wood, 1996), but two correlational studies suggest an association between co-worker support and success in the work place (Banks, Charleston, Grossi, & Mank, 2001; Jones & Bond, 2007).

8. Career Development

The long-term goal of supported employment is of course to help people to succeed in satisfying, long-lasting jobs that they consider meaningful careers. Many papers describe the attitudes and coping strategies used by clients who are able to maintain employment over time (Auerbach & Richardson, 2005; Loeb, Kaufman, Silk-Gibran, & Gioe, 1974; Killeen & O'Day, 2004). Two long-term follow-up studies show that people who have been involved in supported employment programs tend to work more consistently over time and to stay in jobs for several years, even though they continue to work part-time (Becker, Whitley et al., 2007; Salyers et al., 2004).

Career development implies that there is a pattern of growth and increasing satisfaction in employment over time – something that might be enhanced by

further counseling, supports, or education (Fabian, 2000; Gioia, 2005). Thus far, there is little empirical evidence regarding interventions and effectiveness in this area.

9. New Populations

Supported employment started in the field of developmental disabilities (Wehman & Moon, 1988) and was subsequently modified and adapted for persons with mental illnesses (Drake, Becker, Clark, & Mueser, 1999). Evidence-based supported employment designed for persons with psychiatric disabilities continues to be adapted for related populations. Several groups have applied supported employment (often mixed with supported education) to young people during the early phases of schizophrenia with excellent outcomes, which appear to be superior to those obtained with older individuals (Killackey, Jackson, & McGorry, 2007; Nuechterlein et al., 2005; Rinaldi et al., 2004). Taken together, these studies suggest that prevention of disability may be possible. At the other end of the age spectrum, researchers are beginning to use supported employment with aging adults with schizophrenia who have work and other age-appropriate goals (Twamley, Narvaez, Becker, Bartels, & Jeste, 2008). Since much of the existing research involves people with schizophrenic disorders, several investigators have suggested adapting supported employment and other vocational strategies for persons with bipolar disorders (Elinson et al., 2007; Jaeger & Vieta, 2007) and those with depressive disorders (Lerner et al., 2004).

Some new research on supported employment is also being done with completely different populations, including persons with post-traumatic stress disorder (Davis, personal communication), traumatic brain injuries (Moore & Corrigan, personal communication), welfare recipients (Gueron, 2007), and individuals with a variety of substance abuse and a variety of other difficulties who are entangled in the criminal justice system (Tschopp, Perkins, Hart-Katuin, Born, & Holt, 2007). Studies with these populations will no doubt lead to further, population-specific modifications of supported employment.

Conclusions

The remarkable empirical progress of supported employment includes clarity regarding needs for improvement, in terms of both dissemination and model elaboration. Several promising avenues of investigation suggest that further progress can be expected in the next 10 years. We look forward to another decade of even more remarkable achievements.

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ROBERT E. DRAKE, MD, PHD, IS PROFESSOR OF PSYCHIATRY AND COMMUNITY AND FAMILY MEDICINE, DARTMOUTH MEDICAL SCHOOL, LEBANON, NH.

GARY R. BOND, PHD, IS CHANCELLOR'S PROFESSOR, DEPARTMENT OF PSYCHOLOGY, INDIANA UNIVERSITY-PURDUE UNIVERSITY INDIANAPOLIS, INDIANAPOLIS, IN.

CONTACT INFORMATION:
ROBERT E. DRAKE
DARTMOUTH PSYCHIATRIC RESEARCH CENTER
2 WHIPPLE PLACE, SUITE 202
LEBANON, NH 03766