



Employment Issues and Relevant Treatment Models for Persons with Schizophrenia

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Submitted on: April 26, 2018 Accepted on: August 1, 2018

ABSTRACT

Employment is an important aspect of life that shapes a working-age adult's identity and sense of belonging in society. Despite the passage of legislation to protect the right to work of people with disabilities, they continue experiencing high rates of unemployment and underemployment. The challenges faced by persons with psychiatric disabilities when seeking and maintaining employment may seem insurmountable, especially when they have to battle the stigma associated with mental illness and overcome stereotypical views held by employers. The purpose of this paper is to provide a systematic review of the employment issues encountered by persons with schizophrenia and to introduce vocational interventions that could improve employment outcomes. Treatment models, such as the theory of planned behavior and individual placement and support, are also discussed.

Keywords: Schizophrenia, employment, cognitive remediation, individual placement and support, theory of planned behavior

INTRODUCTION

It has been well documented in research that the population of persons with schizophrenia experiences a high level of unemployment (Major et al., 2010). This is even true for persons experiencing their first episode of psychosis (Ramsay, Stewart, & Compton, 2012). In their study, Ramsay et al. (2012) found that 65% of participants were unemployed in the month prior to hospitalization, indicating that the employment issues existed before the full onset of a psychotic episode. Unemployment was also associated with younger age, fewer years of educational attainment, lower global functioning scores, and more severe negative symptoms, such as cognitive dysfunction (Ramsay et al., 2012). These results are significant because work has been associated with improved well-being through the factors of income, self-esteem, quality of life, social inclusion, and control of symptoms (Bond & Drake, 2014). Priebe et al. (2010) pooled data from 3,936 participants in sixteen different studies that utilized one of two instruments to measure Subjective Quality of Life (SQOL) in persons with schizophrenia. They found that persons who were employed had the highest ratings of SQOL. In a review of 104 articles, Switaj et al. (2012) identified the most common references to psychosocial difficulties for persons with schizophrenia. They mention employment as one of the

most referenced psychosocial difficulties in the domain of activities and participation in the community. Impairment in functional status, which includes the ability to work, is typical in schizophrenia and is linked to deficits in aspects of neurocognition such as attention, memory, and problem-solving (Kurtz, 2011). Recent research has begun to focus on the factors that affect functional status as well as treatment models that are designed to address these underlying factors. This direction of study is more pertinent when paired with research suggesting that persons with schizophrenia have significant impairments across multiple domains of functioning, and will typically remain impaired during normal working ages until new interventions are developed (Harvey et al., 2012). However, in an article on supported employment, Bond and Drake (2014) allude to the fact that the problem may be more related to the effective implementation of interventions rather than the lack of interventions themselves. They also state that, because of their inability to gain employment, persons with schizophrenia are often reliant on Social Security benefits which results in a higher strain on the economy, especially when lost productivity is taken into account.

Social Security Benefits versus Employment

Harvey et al. (2012) state that the Social Security Administration is considering the inclusion of schizophrenia in the "Compassionate Allowances" process, which means that only minimal objective medical information is necessary to qualify for benefits. The authors report that, while clinical remission (symptoms below the diagnostic threshold for six months) is more common than functional recovery, clinical remission is not a predictor of functional recovery. In fact, most

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Cite as: Herold, M.A. (2018). Employment Issues for Persons with Schizophrenia and Relevant Treatment Models. *Journal of Disability Studies*, 4(1), 9-13.

©IS Publications ISSN: 2454-6623 <http://pubs.iscience.in/jds>



patients experience clinical relapses, even with appropriate treatment adherence (Harvey et al., 2012). After analyzing three years of data from the Worldwide Schizophrenia Outpatient Health Outcomes study, Haro et al. (2011) found significant differences between the rates of clinical remission and functional remission. They report that 66.1% of the studied population achieved clinical remission in the three year period, while only 25.4% achieved functional remission, which was defined as positive occupational/vocational status (any work, active student, or housewife), independent living, and active social interactions (Haro et al., 2011). Haro et al. (2011) also report that the worst clinical outcomes were observed in Europe, and regional differences were not explained by clinical characteristics, implying that environmental factors likely had a more significant effect. Harvey et al. (2012) also state that 80% of applicants with Schizophrenia/Paranoid Functional Disorders are approved, compared to 50% of all applicants.

Once a person has begun receiving Social Security benefits, it is difficult to make the transition to competitive employment (Bond & Drake, 2014). Bond and Drake (2014) state that Medicaid and Medicare insurance are linked to benefits, so beneficiaries are reluctant to pursue employment that likely will not provide insurance that is as comprehensive. In addition, the current processes in the Social Security system make it difficult to reinstate benefits once a person has become competitively employed (Bond & Drake, 2014). If a person is unsuccessful in his or her work endeavors, he or she does not have the option of immediately reinstating benefits. Again, this creates a pattern of resistance to employment in this population. Bond and Drake suggest that these disincentives should be addressed to create a more encouraging environment for persons with severe mental illness, specifically schizophrenia, to pursue competitive employment (Bond & Drake, 2014).

The Relationship between Neurocognition and Employment

In a meta-analysis of 62 studies, Tsang, Leung, Chung, Bell, and Cheung (2010) found that cognitive functioning was “overwhelmingly” identified as a significant predictor of employment for persons with schizophrenia. Giugiaro et al. (2012) investigated the specific role of cognitive functioning in obtaining competitive employment for persons with schizophrenia. They discovered that the cognitive functions of verbal memory, general psychopathology, and awareness of one’s mental illness were significantly associated with competitive employment. In a synthetic literature review of 20 studies regarding performance on neurocognitive tests as a predictor or response to evidence-based treatment, Kurtz (2011) found that attention and memory were most frequently linked to progress in social skills training programs, which can enhance a client’s ability to attain and maintain competitive employment. Further relevant results involved a link between composite measures of neurocognitive function, attention, memory, and problem-solving; along with progress in work therapy and supported employment programs (Midin et al., 2011). Midin et al. (2011) recognized that multiple Western studies indicate that certain clinical factors contribute to employment outcomes for

the population with schizophrenia, but they sought to expand this investigation to Malaysia. Their results supported the role of cognitive functions such as attention, working memory, and executive function in attaining and maintaining employment (Midin et al., 2011). Midin et al. (2011) state that this provides preliminary evidence for the importance of incorporating cognitive rehabilitation into the broader system of psychosocial rehabilitation services in Malaysia.

Measuring Cognitive Functioning

Various instruments have been tested to assess cognitive functioning in patients with schizophrenia. Kern et al. (2011) conducted a study that served as the final stage in the development of the MATRICS Consensus Cognitive Battery (MCCB). They identified that speed of processing and social cognition accurately distinguished persons with schizophrenia from those without the diagnosis. Speed of processing, visual learning, and attention/vigilance accurately distinguished persons with schizophrenia who were competitively employed versus those who were not employed (Kern et al., 2011). In a study of the relationship between neurocognitive impairment and functional outcome in patients with a recent first episode of psychosis, Nuchterlein et al. (2011) identified three contributing cognitive factors: working memory, attention, and early perceptual processing. For this study, several different measures of neurocognition were used for patients that had reached a clinically stable outpatient point following hospitalization for their first episode of psychosis. Shamsi et al. (2011) studied the relationship between the MCCB and functional outcomes for persons with schizophrenia. They found significant relationships among the MCCB neurocognitive domain scores, negative symptomology, and aspects of functional outcomes. Specifically, they found that working memory performance and negative symptomology predicted work and educational functioning. In addition, Shamsi et al. (2011) report that social cognition, attention, and negative symptomology predict social functioning, which has also been linked to success in employment. Mausbach et al. (2010) assessed the relationship between “real-world” functioning and a performance-based measure of functional capacity, the Brief University of California San Diego Performance Based Skills Assessment (UPSA-B). Their results support the research that suggests cognitive abilities are able to predict the ability to gain employment. However, Mausbach et al. (2010) note that psychopathology interferes with the ability to sustain employment, beyond the positive effects of cognitive abilities. This finding was echoed in a study conducted by Erickson, Jafaari, and Lysaker (2011). Over a period of six months, part-time workers at the Veterans Administration who were diagnosed with schizophrenia were assessed for positive symptoms, negative symptoms, level of insight, and performance (Erickson et al., 2011). It was determined that negative symptom severity and level of insight were significantly associated with poor work performance consistently over the six-month period.

Cognitive Remediation

To address the impact of cognitive functioning on functional outcomes, including employment, researchers have begun studying interventions that may augment rehabilitation services. Bell, Choi, Dyer, and Wexler (2014) investigated the effectiveness of Cognitive Remediation as an addition to supported employment for the population with schizophrenia. Bell et al. (2014) identify cognitive remediation as computer exercises that promote improvement in attention, language, memory, and executive function. Their results indicated a higher rate of employment and more hours worked for low functioning participants. However, there was no indication of benefits for higher functioning participants. Bell et al. (2014) also note that more negative, cognitive, and hostility symptoms were correlated with impaired community participation and social functioning. In a similar study, Eack, Hogarty, Greenwald, Hogarty, and Keshavan (2010) compared the effects of Cognitive Enhancement Therapy (CET) with the effects of Enriched Supportive Therapy (EST). They explain that EST involves enriched environmental experiences that can improve brain function associated with cognitive abilities. Eack et al. (2010) aimed to improve two functional domains through CET. To address neurocognitive impairment, they used computer-based exercises to expand attention, memory, and problem-solving abilities. To address impairment in social cognition, they used cognitive group therapy sessions. For the EST group, they provided psychoeducation about schizophrenia, explained the role of stress in schizophrenia, identified ways to avoid stress, and focused on identifying and managing stressors. The results indicated that CET participants were more likely to be competitively employed, were more satisfied with their employment status, and received greater earnings from employment (Eack et al., 2010). Eack et al. (2010) state that the CET model can help clients find employment in the early onset of schizophrenia by addressing the cognitive impairments that limit functioning.

Employment as Cognitive Remediation

While much of the research has focused on enhancing cognitive function to improve work outcomes, Bio and Gattaz (2011) investigated whether work itself contributes to improved cognitive functioning. Their results indicate that successful participation in a vocational rehabilitation program improved scores of cognitive measures that assess executive functions, such as concept formation, flexibility, judgment, and critical abilities (critical thinking). Bio and Gattaz's (2011) findings suggest that work does contribute to improvements in cognition for persons with functional impairment in this area.

Vocational Interventions for Persons with Schizophrenia

Individual Placement and Support

A significant portion of recent literature has been devoted to the vocational rehabilitation model of supported employment, also known as Individual Placement and Support (IPS). Bond and Drake (2014) enumerate the eight principles of the model. Eligibility based on consumer choice:

1. Focus on competitive employment (Specifically, jobs in integrated work settings in the competitive job market at prevailing wages with supervision provided by business personnel)
2. Integration of mental health and employment services
3. Attention to client preferences
4. Work incentives planning
5. Rapid job search
6. Systematic job development
7. Individualized job supports

Bond and Drake (2014) note that IPS is cost-effective, averaging an annual cost of \$5,500 per client, compared to the combined higher cost of Social Security benefits and lost productivity. However, IPS is limited or unavailable in most communities, with only 2.1% of the population with serious mental illness having access in 2009 (Bond & Drake, 2014). The primary problems with providing this treatment to a larger population of clients involve poor funding for the model, as well as disincentives to work in the Social Security benefits system (Bond & Drake, 2014). One of the most prominent disincentives is the loss of health insurance that is currently linked to disability benefits (Bond & Drake, 2014). A meta-analysis of four randomized control trials that compared IPS to traditional vocational approaches found large effect sizes for IPS on three outcomes: obtaining a job, total weeks worked, and job tenure (Campbell, Bond, & Drake, 2011). Campbell et al. (2011) report that IPS produced better competitive employment for persons with serious mental illness regardless of demographic, clinical, and employment characteristics. Twamley et al. (2012) conducted an individual study comparing IPS to conventional vocational rehabilitation (CVR). Their results indicated that IPS was superior to CVR on nearly all work outcome measures, but especially for attaining competitive employment, weeks worked, and wages earned. IPS produced higher rates of competitive work and higher rates of any type of paid work (Twamley et al., 2012). Similar results were obtained in a comparison of IPS and CVR in several European countries (Kilian et al., 2012). Their findings show that IPS clients spent more time in competitive employment and spent fewer days in psychiatric hospitals due to indirect positive effects of employment on clinical status (Kilian et al., 2012).

Another study investigated the use of IPS for patients shortly after their first episode of psychosis (Major et al., 2010). Results indicated that access to treatment services was a significant independent predictor of vocational recovery during 12 months of follow-up, and participants were 3.53 times more likely to achieve vocational recovery than the control group. For this study, vocational recovery was defined as "Gaining or returning to competitive employment ... or an educational activity which clearly led to a nationally recognized vocational qualification or degree at any point in the 12-month follow-up" (Major et al., 2010).

To assess the effect of implementing IPS with a community mental health team, Rinaldi et al. (2010) studied four different teams. They found that a higher proportion of the teams' clients

felt able to return to work after engaging in the IPS treatment model. Rinaldi et al. (2010) note that a smaller proportion of the clients felt unable to work because of the severity of their mental health problems. Drake et al. (2013) conducted a study of a multi-faceted intervention for helping SSDI beneficiaries return to work including team-based IPS, systematic medication management, other behavioral health services, health insurance independent of benefits, and a suspension of disability reviews. Drake et al. (2013) identified a primary outcome measure as paid employment and secondary outcome measures as overall mental health and quality of life. They found that the intervention group was higher than the control group on all measures (Drake et al., 2013). An additional element that has been considered for IPS is the utilization of peers, who are persons with a diagnosis of schizophrenia that are in functional remission. Kern et al. (2013) assessed the effectiveness and fidelity of peers providing IPS services. Their results indicated that peers met fidelity on seven of fourteen items, assisted 33% of consumers in acquiring competitive employment, and had job performance ratings that were average or above average (Kern et al., 2013).

Individual Placement and Support (IPS) has also been studied with populations outside the United States. Bond, Drake, and Becker (2012) reviewed fifteen randomized controlled trials, six of which were conducted in other countries. The trials looked at several competitive employment outcomes that included employment rate, days to first job, weeks worked during follow-up, and hours worked. In each trial, IPS evidenced higher employment outcomes and program retention than control groups (Bond, Drake, & Becker, 2012). However, competitive employment outcomes were higher in all U.S. trials when compared to the trials in other countries. Bond et al. (2012) suggest that other countries may benefit from training and guidance on implementing IPS accurately and with fidelity. If training and guidance do not increase outcomes, it may be necessary to create adaptations to IPS that address labor and disability laws that differ in other countries (Bond et al., 2012).

Theory of Planned Behavior

Some preliminary research has been conducted to test a conceptual model based on the Theory of Planned Behavior that incorporates clinical, psychosocial, and work-related variables (Corbière et al., 2011). Corbière et al. (2011) report that four concepts of TPB can influence motivation to find employment: work centrality, social encouragement to find a job, career search efficacy, and barriers to employment. It is suggested that employment specialists focus on these modifiable concepts to help their clients. Since intrinsic client characteristics only accounted for 8% of variation in work outcomes, it is likely that environmental variables, such as stigma toward mental illness, play an important role in predicting job acquisition (Corbière et al., 2011).

CONCLUSION

A review of recent literature indicates the importance of employment for all populations, including those with severe mental illness, such as schizophrenia (Bond, Drake, & Becker,

2012). Employment not only provides practical outcomes such as income, it also results in improved self-esteem and social inclusion (Bond et al., 2012). In addition, employment has proven to help control symptoms of mental illness (Bond et al., 2012), improve overall mental health (Drake et al., 2013), augment subjective quality of life (Priebe et al., 2010), and even promote better cognitive functioning (Bio & Gattaz, 2011). While employment itself can improve cognitive functioning, persons with schizophrenia have better opportunities for competitive employment if they can improve their cognitive functioning first (Bell et al., 2014). Several studies have documented that Cognitive Remediation impacts cognitive functioning, resulting in higher rates of attaining and maintaining employment outcomes (Bell et al., 2014; Eack et al., 2010; Midin et al., 2011).

A particular model of supported employment known as Individual Placement and Support (IPS) has been identified as highly effective in producing positive employment outcomes for persons with schizophrenia (Bond, Drake, & Becker, 2012). It has even been shown to be cost effective compared to the combined cost of Social Security benefits and lost productivity (Bond & Drake, 2014). Unfortunately, access and funding are currently very limited, such that a very small percentage of clients are benefiting from the model (Bond & Drake, 2014). Some early evidence is also pointing to the effectiveness of a model known as the Theory of Planned Behavior that incorporates clinical, psychosocial, and work-related interventions to support persons with severe mental illness in their efforts toward finding competitive employment (Corbière et al., 2011). It will be beneficial for clinicians and agencies to find effective ways to procure funding for these models and to provide high quality training for front-line staff to implement them with fidelity.

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Source of Funding: None **Conflict of interest:** None