A process analysis of supported employment services for persons with serious psychiatric disability: implications for program design

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Abstract

Meeting the vocational needs of adults with mental illness is one of the most critical issues currently facing mental health planners and policy makers. An extensive technology has been developed for one such service: supported employment. This paper reports on a process analysis of an innovative 3-year research and demonstration project which was designed to evaluate a supported employment (SE) program designed specifically for persons with psychiatric disability. A process and method were implemented and an instrument developed to monitor the intervention. Twenty participants were enrolled in the study; enrollment was staggered and occurred over a period of 12 months. Results revealed that SE staff had frequent, brief contact with participants in the program at varied times of day and via varied modes of contact. A large proportion of time was spent providing emotional support to help participants keep their jobs. Implications of this process analysis for program design are discussed. © 1997 Elsevier Science Ireland Ltd.

Keywords: Psychiatric disability; Supported employment; Process analysis; Vocational services

1. Introduction

Meeting the vocational needs of persons with psychiatric disabilities is one of the most critical issues currently facing mental health planners and policy makers. Programs for persons with psychiatric disabilities must offer real opportunities for growth and success in an environment which is supportive but non-stigmatizing (Anthony and Blanch, 1987). Supported employment is one such approach: it is characterized by a goal of paid work in integrated job settings with whatever
ongoing support is necessary to maintain employment over time (Will, 1984). Most supported employment programs include job placement, job site training, monitoring and follow-up, and provide some variation of individual job placement, work crews, or enclaves (Wehman and Kregel, 1985).

Supported employment (SE) approaches seek to place participants into a job immediately, and then train them specifically for that job. Job placement occurs through some variation of individual competitive job placement, work crews, or enclaves (Wehman and Kregel, 1985; Bottgerbusch, 1989). SE generally has several phases, including: determining job preferences and competencies, developing a job that closely matches the participant's competencies and preferences, providing job coaching in the specific tasks and skills required for the job, and finally fading the job coaching (Wehman and Kregel, 1985; Danley and Mellen, 1987; Wehman et al., 1989).

The technology that was developed to provide supported employment to people with developmental disabilities (Rhodes and Valenta, 1985; Bellamy et al., 1986; Wehman et al., 1989) has been modified for people with psychiatric disabilities (Anthony and Blanch, 1987; Fabian and Wiedefeld, 1989; MacDonald-Wilson et al., 1989; Trotter et al., 1988). For example, Anthony and Blanch (1987) describe 10 major ways that SE for persons with psychiatric disability may differ from SE for persons with developmental disability. Chief among these are the need for a longer pre-employment period (the 'Choosing' phase in which the person with a psychiatric disability has an opportunity to explore his or her employment interests, skills and goals). Secondly, many individuals with psychiatric disability do not wish to disclose their disability. These modifications to standard SE practice have important implications for how SE programs are staffed and implemented. This contrast is evident in SE programs for persons with developmental disability for whom job matches are often determined quickly, and, because of the nature of their disability, are generally known to their employer as having a disability.

A number of studies have found SE to be a cost-beneficial approach producing improved vocational outcomes for people with severe disabilities (Wehman, 1981; Boles et al., 1984; Noble and Conley, 1986, 1987; Rhodes et al., 1986; McCaughrin et al., 1993). These findings, however, have not been unequivocal. Studies of the employment outcomes of SE programs for persons with psychiatric disability are beginning to proliferate in the literature (Fabian, 1992; Danley et al., 1994; Bond et al., 1995; Drake et al., 1995; Gervey et al., 1995) and suggest promising outcomes overall.

Recently process studies have also appeared in the literature reporting on the type, intensity and patterns of SE interventions for people with mental retardation and psychiatric disability (e.g. MacDonald-Wilson et al., 1991; West et al., 1992; Kregel, 1995). We sought in this study to develop and implement a methodology that would yield a comprehensive understanding of the process of providing SE services to persons with psychiatric disability. This was part of a larger study in which employment outcomes and cost-benefits were examined and are reported elsewhere (Danley et al., 1994; Rogers et al., 1995). The SE services studied were based upon the 'Choose–Get–Keep' model described by Danley and Anthony (1987) among others.

2. Method

2.1. Subjects

Twenty participants were enrolled in the intervention; enrollment was staggered and occurred over a period of 12 months. One subject refused to provide data and subsequently dropped out of the study, leaving an effective sample of 19 participants. Participants met the inclusion criteria for the project if they:

- Had experienced a severe disability due to mental illness which resulted in impaired role functioning.
- Were between 18 and 45 years of age.
- Were interested in working in a university setting at least 20 h per week.
- Had symptoms from their mental illness that
were managed by whatever supports or skills were necessary.
• Had adequate and stable housing.

Participants were predominately white (95%), male (74%), never married (79%), with an educational level beyond high school (89%). The mean age was 36 years. Most subjects were living in an unsupervised residence (85%) at the time of intake into the study. The majority of subjects were diagnosed as having a major affective or bipolar disorder (53%), and 37% of the subjects were diagnosed as having schizophrenia. Subjects had a substantial history of psychiatric hospitalizations (an average of 22 months during their lifetime), and most were taking psychotropic medication (84%).

All participants had some competitive, supported or transitional employment experience prior to their involvement in this study. The mean number of months employed (either part or full-time) in the 5 years prior to intake was 15.75. Six participants were enrolled in a supported, transitional or competitive job when they entered this study. Individuals employed in these capacities were referred to the project because they needed support services to maintain their status or to obtain more suitable employment.

During the study, subjects worked an average of 15–20 h per week. The supported jobs were primarily entry level, semi-skilled or clerical positions, with a few participants working in retail sales and direct human service positions. Examples of the types of jobs included: Office Assistant, Sales/Stock Clerk, Activity Aide and Medical Records Librarian.

2.2. Project staff

Staffing for the project included one (0.25 FTE) Project Manager who also provided direct service (0.25 FTE), two Employment Specialists (2.0 FTE) and student interns (0.90 FTE) for a total of 3.15 FTEs providing direct services. The Project Manager and one Employment Specialist had Master’s degrees in Rehabilitation Counseling and 5–8 years experience in the rehabilitation/mental health field. The other Employment Specialist and the interns were students in the Master’s degree program in Rehabilitation Counseling. The Employment Specialists had experience in both the human service and business worlds, and one specialist had worked previously as a Job Developer. All staff were trained in psychiatric rehabilitation technology, SE principles and psychiatric vocational rehabilitation approaches (Danley and Anthony, 1987). In terms of job tenure, all staff remained in the project for the duration with the exception of one Employment Specialist whose position was refilled.

2.3. Instruments

2.3.1. Supported employment process record

For the purposes of this study, a form was developed to track and monitor each and every contact made by a supported employment staff person with, or on behalf of, a participant in the project. The instrument was developed to track the following variables: mode of contact (phone, face-to-face individual meeting, group meeting), time of day and day of week of the contacts, whether the contact was on or off the job site, with whom the contact took place (participant, family member, personnel staff, job supervisor, psychiatrist, etc), the purpose of the contact (emotional support, planning, assessing skills, advocacy, and so forth). A determination was also made of the major SE activity (e.g. Choosing, Getting, Keeping1) in which the participant was engaged at the time of the contact (Danley and Anthony, 1987). If assistance was provided in relation to more than one major SE activity, information related to each activity was captured. Table 1 contains a list of the variables and how data were coded using the process instrument.

3. Results

Results of our process analysis of SE services suggested that SE staff had varied types and

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1The Keeping phase may have been artificially truncated due to the project being time-limited.
Table 1
Data collection instrument for SE process analysis

<table>
<thead>
<tr>
<th>Contact mode</th>
<th>Location</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone</td>
<td>At the Job Site</td>
<td>Total time</td>
</tr>
<tr>
<td>Individual meeting</td>
<td>Off the job site</td>
<td>Time and day of week</td>
</tr>
<tr>
<td>Group</td>
<td>Near job site</td>
<td>Date</td>
</tr>
<tr>
<td>No contact</td>
<td></td>
<td>Preparation time</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Role of person with whom there was contact</th>
<th>Phase</th>
<th>Content of contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant</td>
<td>Intake</td>
<td>Engagement</td>
</tr>
<tr>
<td>Professional</td>
<td>Research</td>
<td>Emotional support</td>
</tr>
<tr>
<td>Case manager</td>
<td>Choosing</td>
<td>Crisis management</td>
</tr>
<tr>
<td>Therapist</td>
<td>Getting</td>
<td>Gather information</td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>Keeping</td>
<td>Updating</td>
</tr>
<tr>
<td>Referring agency staff</td>
<td>Transition</td>
<td>Decision-making</td>
</tr>
<tr>
<td>State vocational</td>
<td></td>
<td>Assess skills</td>
</tr>
<tr>
<td>Rehabilitation counselor</td>
<td></td>
<td>Planning</td>
</tr>
<tr>
<td>Social Security representative</td>
<td></td>
<td>Monitor skills</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employer</th>
<th>Phase</th>
<th>Content of contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job supervisor</td>
<td></td>
<td>Engagement</td>
</tr>
<tr>
<td>Personnel staff</td>
<td></td>
<td>Emotional support</td>
</tr>
<tr>
<td>Family member</td>
<td></td>
<td>Crisis management</td>
</tr>
<tr>
<td>Supported employment program staff</td>
<td></td>
<td>Gather information</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>Updating</td>
</tr>
</tbody>
</table>

modes of contact throughout the project. A total of 5115 contacts were logged for the 20 participants during the project. The total number of contacts per subject for the duration of the project ranged from 11 to 1268.

During the most active year of the project, the average number of contacts per subject was 198 (16.5 per month) with a range from 11 to 986. The average number of contact hours per participant during that year was 115 (median = 83, range 7.58–542).

Fig. 1 displays the number of contacts that were made on each day of the week. As can be seen from that figure, Monday had the highest number of contacts, followed closely by Tuesday and Thursday. A smaller number of contacts was made on Wednesday, and a substantially smaller number on Friday. Somewhat unexpectedly, there were a fair number of contacts on Sunday and a lesser, but still substantial number on Saturday.

As can be seen from Fig. 2, the overwhelming majority of contacts were made off the job site (95%). Less than 4% of the contacts were made on the job, and about 1% were made in sites that were close to the job site (e.g. a cafeteria in the employee's job site). About 60% of the contacts were made by phone, 29% in individual face-to-face meetings, 6% in group meetings, and about 5% involved no contact (for example, filling out Social Security forms or writing letters on the participant's behalf).

Total time spent during each of the contacts ranged from a low of 1 min to a high of 8.25 h with an average of 49 min over 5034 contacts (this number of contacts differs from the total number cited above because of missing data). Because the total time per contact included both preparation and travel time, we separated out those variables and asked simply how much time was involved in the contact, minus the travel and preparation time. The average contact was 37 min with a range from 1 min to 8 h. About half of the
contacts were less than 15 min, another quarter of the contacts were less than 45 min, and the remaining contacts were between 45 min and 8 h. Less than 20% of the contacts exceeded an hour.

The time of day that contacts occurred was highly varied. The majority (64%) of the contacts were in the afternoon or evening hours. About 36% of the contacts occurred in the morning. As can be seen from Fig. 3, the overwhelming majority of the contacts occurred with the participants themselves, by a factor of 10. However, there was a sizeable number of contacts with
personnel staff, job supervisors, SE staff from other programs, and family members. There were fewer contacts with residential staff, state vocational rehabilitation counselors, social security representatives, and psychiatrists or therapists.

When we examined the contacts in relation to the major SE activities, we found the following: about 4% of the contacts were made for the purposes of intake into the project; 5% were made for purely research purposes (i.e. information was collected but no SE services were rendered); 25% were made to assist the participant with 'Choosing' employment; 19% were made for 'Getting' employment; and fully 45% were made to assist participants in 'Keeping' employment. A small number of contacts (2.3%) categorized the participant as being 'In Transition'; that is, participants who were not working or seeking work, but still receiving support from the project staff. These results also held up when we examined the amount of time spent in contacts per major activity: 'Keeping' occupied the largest proportion of staff's time relative to the other major activities.

We analyzed not only the number of contacts, but the amount and duration of contacts by major activities. These results revealed an average of 47 h spent in 'Choosing' per participant, 20.5 h in 'Getting' per participant, and an average of 68 h spent in 'Keeping' per participant, over the life of the project. We also examined the average length of time of each major activity. The Choosing, Getting and Keeping phases proved to be neither discrete nor linear; the average number of months spent in Choosing was 11.02 (range = 1–22, S.D. = 6.2, median = 11.99); Getting was 6.83 (range = 1–16, S.D. = 4.9, median = 6.05); and Keeping was 10.26 (range = 1–25, S.D. = 7.0, median = 12). Thus, though the 'Keeping' phase lasted about as long as the other two phases, there was more frequent and intense contact during it. In addition, an analysis was made of the extent to which the Choosing, Getting and Keeping activities overlapped. On average, there were 5.1 months of overlap between Choosing and Getting, 5.9 between Choosing and Keeping, and 4.1 between Getting and Keeping.

We examined the actual practitioner tasks associated with each contact. Each task was defined to insure reliability and continuity of data collection across SE staff. Each contact could involve

![Fig. 3. Target of contact.](image-url)
more than one task and all tasks associated with each contact were recorded. Aside from gathering information, ‘Emotional Support’ (defined as counseling or active listening), was clearly the most frequent practitioner task performed (27% of all contacts were for this purpose). Planning and resource coordination (i.e. linking the participant with another service or resource, or providing the service) were also frequent reasons for contact. Table 2 contains the percentages of practitioner tasks involved in all contacts.

4. Discussion

These results suggest processes within SE which may be unique to persons with psychiatric disability, and which have several implications for providers of SE services. To date it is the first such study to analyze these processes empirically. First, our project staff had very frequent, albeit not necessarily extended, contact with project participants. The average number of contacts per participant per year during the most active project year was 198, or about 16 contacts per month, suggesting very frequent contact. The majority of the contacts occurred by phone, and a large percentage were quite brief, suggesting that easy access to SE staff by phone, even for brief periods of time can be beneficial in assisting participants to deal with employment-related concerns. The second most common mode of contact was through individual, face-to-face meetings (30% of all contacts).

While Monday proved to be the busiest day of the week for contact with SE staff, Tuesday, Wednesday and Thursday were almost as busy; only Friday produced significantly fewer contacts. This may be an artifact of participant’s work schedules as with virtually all participants working part-time, it is possible that fewer numbers worked on Friday. Our data suggest that it is important for SE staff to be available and accessible on weekends, as a fairly sizeable number of the contacts occurred on Saturday and Sunday. It is also important that SE staff be available at times other than the regular ‘nine to five’ schedule to which many service programs adhere.

In contrast to programs for persons with mental retardation, and even other studies focusing on psychiatric disability, (e.g. MacDonald-Wilson et al., 1991) where almost 40% of the intervention time was spent on site, our data suggest that SE staff should be prepared to deal with participants’ concerns away from the job site. While there were substantial numbers of contacts with job supervisors and personnel staff, many of them were handled by phone (and thus were counted as ‘off site’). This factor is mentioned by Anthony and Blanch (1987) as one that distinguishes SE for persons who have a psychiatric disability, and is related to the preference of persons with such a disability for minimizing the interference of professionals in the employment setting. Thus, discretion and confidentiality regarding a participant’s mental illness is a factor that seems to differ from the provision of SE services to other disability groups, where disclosure is frequently the norm and much of the support is provided on the job site. Our findings run somewhat counter to those of Gervey et al. (1995) who stated that three out of four participants disclosed their disability in their survey of exemplary SE programs for persons with psychiatric disability. The discrepancy between our findings and those of Gervey may be accounted for by the fact that he only surveyed 12 SE programs and, of those, 75% were

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Percent of contacts involving task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gathering information, updating info</td>
<td>29.6</td>
</tr>
<tr>
<td>Emotional support</td>
<td>27.2</td>
</tr>
<tr>
<td>Engagement</td>
<td>20.9</td>
</tr>
<tr>
<td>Planning</td>
<td>18.2</td>
</tr>
<tr>
<td>Resource development</td>
<td>16.9</td>
</tr>
<tr>
<td>Skill assessment or development</td>
<td>8.2</td>
</tr>
<tr>
<td>Advocacy</td>
<td>6.1</td>
</tr>
<tr>
<td>Decision making, evaluating options</td>
<td>5.4</td>
</tr>
<tr>
<td>Crisis management</td>
<td>2.6</td>
</tr>
<tr>
<td>Assessing supports</td>
<td>1.8</td>
</tr>
<tr>
<td>Other tasks</td>
<td>6.8</td>
</tr>
</tbody>
</table>

*Note: Tasks add to more than 100% because each contact could have more than one.*
providers of traditional vocational services. SE services that are an outgrowth of traditional programs may be more likely to encourage disclosure or may not make non-disclosure an option.

While the overwhelming majority of the contacts took place with the participants themselves, SE staff interacted with a wide range of individuals in the participant’s life. Contacts were made with family members, residential staff, mental health professionals, social security representatives, job supervisors, and personnel staff. The importance of having SE staff who are knowledgeable, skilled, and comfortable with such varied types of interactions is evident from this study.

Our data also suggest that the majority of the contacts in this SE project were for the purposes of helping participants with the ‘Keeping’ aspects of the job. However, a substantial proportion were also related to getting a job, unlike SE services for other disabilities (Anthony and Blanch, 1987). Clearly, SE staff must have the skills to assist participants to choose, get, and keep employment, with particular emphasis on keeping. Furthermore, these major employment activities should not be viewed as linear or discrete. We have numerous examples of participants who were assisted in keeping their current jobs while they were engaged in the process of choosing more desirable employment, or who were engaged simultaneously in choosing and getting their desired job.

This study substantiates the view of Anthony and Blanch (1987, p. 12) that ‘availability of support at home and on weekends is essential in order for psychiatrically disabled persons to maintain employment...job failures often occur because of occurrences outside the job setting’. While employment was the major purpose of our services, clearly what is needed to accomplish that goal for a large proportion of clients is emotional support: this was the most frequent specific reason (other than simple information gathering) cited for contact. Emotional support thus is a key component in dealing with these issues as is the one-to-one relationship of the SE staff person with the participant. These findings are congruent with those of MacDonald-Wilson et al. (1991), who found that persons with psychiatric disability required relatively more attention to skills that were not directly job related, and relatively less time in job-task training.

In contrast to the data presented by MacDonald-Wilson, et al. (1991) in which approximately 25% of the intervention time was spent in direct or indirect employment advocacy, our staff spent a proportionately small amount of time performing advocacy tasks. However, planning and resource development were frequently cited reasons for contact with SE participants. The individuals in this study were relatively stable symptomatically, reflected in the proportionately low amount of contacts devoted to crisis management. While programs planning to provide SE services to persons with psychiatric disabilities might be concerned about the amount of time that would have to be devoted to crisis management, these data suggest that crises were a relatively infrequent preoccupation of staff time. Proactive planning with the participant for the resources and emotional supports that are needed to maintain employment may help avert crises. Some service providers are advocating the use of an Employment Support Plan that specifies the precursors to crisis, the supports needed, and the actions to take to access these supports (Wilson and Blankertz, 1997).

In terms of the amount of contact time SE staff had with participants, the average was 115 h per participant during the most active project year (mean difference = 83). This mean is somewhat higher than the results reported by MacDonald-Wilson et al. (1991) who found an average of 95.5 h of intervention time with significant variation over the course of the year (i.e. periods of greater and lesser contact). However, when our median numbers of hours are considered, they are somewhat lower than those reported by MacDonald-Wilson et al. (1991). This discrepancy may be accounted for in our study by one participant who consumed an extraordinary amount of staff time. Other studies suggest that our figures are lower than the amount of support needed for persons with mental retardation (MacDonald-Wilson et al., 1991) or traumatic brain injury (West et al., 1991).
5. Implications for practice

Results of this process analysis of SE services, in combination with the experimental learning, yielded the following recommendations for best practices in SE programs:

- Involve participants in defining the type of job environment which is the best match not only for skills, job tasks, hours, and wages, but also for emotional support and personal preferences.
- Discuss the advantages and disadvantages of disclosure prior to the 'Getting' phase. This has implications for the involvement of the Employment Specialist in developing the job, for the length of time that the participant is in the Getting phase, and for the type of and amount of support needed to obtain the job.
- Discuss with the participant the type, frequency and location of emotional support needed during each phase of the SE process. Frequent but brief contacts to provide emotional support away from the job site (and often by phone) may be just as effective as extended support on the job site. Contact may be helpful before going to work (i.e. a phone call to help decrease anxiety), after returning from work (i.e. to discuss what happened at work), or on weekends. Employment Specialists may initiate these contacts, especially just before a participant starts a job, and within the first few weeks to months on a new job.
- Consider developing other resources and supports, including natural supports both on and off the job to assist the participant in maintaining employment.
- Develop an Employment Support Plan with the participant. Help the participant to identify possible indicators that symptoms are increasing or a crisis is looming. Consider involving the employer (if disclosure has occurred), other service providers and family or friends in helping to recognize these indicators. Specify actions to be taken to manage symptoms/behaviors/crises once they are recognized.

6. Summary

This study dealt with one aspect of the rapidly expanding field of SE services, i.e. that of analyzing the processes of service provision. Our data suggests that SE programs and staff must be extremely flexible, responsive and accessible in terms of when and with whom contacts and interactions occur. Emotional support is the most frequent specific task required of SE staff, suggesting the need for SE staff to be highly skilled in counseling interventions and relationship building. Accessibility of supports on the client’s own terms, and in a variety of modalities, appears important for the success of programs providing SE services to persons with psychiatric disabilities. Given the relative paucity of process data on SE programs for persons with mental illness, the discrepancies between these results and the results of other studies such as MacDonald-Wilson et al. (1991) and Gervey et al. (1995) imply the need for further study that is model-specific and which, to the extent possible, uses a common lexicon.

Acknowledgement

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