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Analysis of case managers' support of youth with disabilities transitioning from school to work

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Abstract. In this study we analyzed employment-related supports provided by case managers in a transition program for urban ethnic minority youth with disabilities. We further assessed the influence of these supports on employment outcomes. Urban ethnic minority youth with disabilities often have lives that are complicated by a host of factors related to living in poverty that influence their ability to find and maintain employment. We found that program staff provided two types of supports to address work needs and living issues of these youth: job specific, related to on-the-job tasks, and off-site work supports, related to other areas of daily living. The results showed that both job specific and off-site work supports predicted higher employment retention for youth with disabilities.

Keywords: Supported employment, case management, transition, ethnic minority, youth with disabilities

1. Introduction

Transition to adulthood is particularly challenging for youth with disabilities because they leave school, where a direct assistance system exists, to enter employment, where there are fewer services and supports to meet their career needs [25,34]. In post-secondary settings, the Americans with Disabilities Act (ADA) [1] and section 504 of the Rehabilitation Act [20] regulate the provision of services to people with disabilities. While the individual with a disability is protected against employment discrimination in post-secondary educational settings under these acts, the provision of services is negotiated through accommodations and is often less comprehensive than at the secondary school level [25]. Data from the National Council on Disability [17] suggested that youth with disabilities have a difficult time obtaining and maintaining employment, very few continue in post-secondary education, and for many youth, social security benefits become a barrier to pursuing employment. For those youth who are employed, the jobs are more likely to be temporary and part-time [29] and they are more likely to be fired from a job compared to youth without disabilities [4].

In addition, youth with disabilities in general, and ethnic minority youth with disabilities in particular, are more likely than their peers without disabilities and White peers respectively, to experience multiple social and economic challenges to daily living. They often live in low-income households, face family unemployment, and have parents with low levels of education [3,29]. Furthermore, individuals with disabilities from low-income households are less likely to be employed than their counterparts from higher-income households, and more likely to earn lower wages [4]. White youth with disabilities are more likely to have been employed in a one-year period and to have regular paid jobs than their African-American or Hispanic counterparts [4]. Furthermore, employment rates after

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graduation are significantly different for White youth (62%), African-American (42%), and Hispanic youth (36%) [4]. As pointed out by McLoyd [14], low socioeconomic status and environmental factors associated with economically disadvantaged neighborhoods are predictors of less satisfactory educational outcomes and more socio-emotional problems. Low economic income also adds barriers to service accessibility, and often is associated with limited case management and transportation services [10].

Given these challenges, supported employment may play a critical role in helping youth with disabilities address the challenges of obtaining and maintaining competitive employment in integrated settings. Supported employment has been defined in the Rehabilitation Act of 1973 [20] as

> *Competitive work in integrated work settings... for individuals with the most significant disabilities for whom competitive employment has not traditionally occurred; or for whom competitive employment has been interrupted or intermittent as a result of a significant disability; and who, because of the nature and severity of their disability, need intensive supported employment services... in order to perform such work.*

Following from this definition, supported employment may consist of different forms of support that are provided by a professional or that can be available in the natural environment. Moreover, supports may be job specific or expanded to the community [31]. Intensive supported employment services, also called ongoing supports, typically consist of a job coach who trains the supported employee and then continues to provide follow-up services in order to help the youth maintain an appropriate level of performance [22]. In addition to the support provided by a job coach there is an emphasis on providing natural support such as support provided by peers, other employees, friends, and other informal sources, enabling the recipient to have a better chance of continued employment and to participate in the community without the help of the case manager [19]. Natural supports have been defined as "a network reaching to and from the workplace with the employee's job prospects, performance, and career progress at the center" [31, p. 220]. According to Wehman and Bricout [31], natural supports can be facilitated by a co-worker, employer, community member, family member, and friend. The employee network is not limited to the work setting but extends to the community [31]. Prior research findings have shown that family and community situations exacerbated by poverty influence youth with disabilities' transition outcomes, thus, attention to the community level may be especially relevant for this population [29]. Therefore, there is a need to expand the focus of support from employment issues to home and community life since these interact with work experiences [19]. Targett et al. [26, p. 20] have called these "off-site work supports" and they include "transportation[...], information on Social Security work incentives, or developing action plans to resolve difficulties that could negatively impact work."

Disability severity also needs to be attended to in the provision of employment-related support. In 1992, the Rehabilitation Act of 1973 was reauthorized [21] with specifications about eligibility provisions, making clear that people with significant disabilities were the target population of supported employment programs [12, 30]. Nonetheless, substantial differences exist between youth with mental retardation and developmental disabilities who continue receiving services, and youth with learning disabilities who are often not eligible for this employment support [34].

Human service employment support models, including job coaches and case managers, have been successfully used to address the complexity of employment and personal characteristics in the post-secondary system of services [19]. Several studies have reported that the support provided by case managers is a predictor of good transition outcomes. For instance, Nuehring and Sitlington [18] examined the transition of three adolescents with autism from high school to vocational rehabilitation services. The authors highlighted that an effective aspect of successful transition was a transition specialist who helped the students and their families overcome obstacles. Jacobsen [9] also found that having access to specialists' advice and clear information about benefits was a determining factor in the success of the transition to work provision for youth with learning disabilities. Freedman and Lynch [6] reported that youth with disabilities transitioning from school to work considered limited job coaching to be a potential source of anxiety. Likewise, Wistow and Schenider [33] found that the availability of a support person was a predictor of employment satisfaction for people with learning disabilities. Taylor-Ritzler and her colleagues [27] conducted a study to examine whether and how goal setting, help-recruiting skills training, and the support provided by case managers influenced goal attainment of low-income, ethnic minority high school students with disabilities living in Chicago. They [27] concluded that with adequate support, participants were

able to set goals and attain most of them. The students sought help from case managers, school staff, family members, and friends with no substantial differences among the various sources. They received, however, more help from the case managers and school staff than from family and friends.

Nevertheless, while there is evidence of the critical importance of employment-related case management support for minority youth with disabilities, according to Peterson [19] there is still a need to more fully understand the roles of human service professionals in supported employment. Furthermore, off-site work support has generally not been thoroughly examined in the literature [32]. This type of support can address both individual and contextual factors in the lives of urban ethnic minority youth with disabilities who live in poverty. Therefore, the purpose of this study was to identify and explore job specific and off-site work supports that were provided by case managers to ethnic minority youth with disabilities in the transition program "Bridges... from school to work" (Bridges) and to analyze their influence on employment outcomes.

To date, few studies have evaluated the influence of support provided to Bridges participants on employment outcomes. Fabian, Lent and Willis [5] analyzed data from 2,258 youth with disabilities who participated in the Bridges program from 1990 to 1995. The results of the study indicated that the amount of work experience during the internship[1] was a good predictor of internship completion and employment acceptance. In addition, completion of the internship was the best individual predictor of job-offer acceptance. The authors found significant but small correlations between days absent, hours of staff intervention and level of integration and acceptance of a job offer. Luecking [11] analyzed the data of 3,024 Bridges participants from 1993 to 1997 and found that the amount of staff intervention was the best predictor of internship success. He [11] concluded that the vast majority of youth with disabilities could expect to succeed in community-based and paid employment despite disability type or demographic category. However, no studies have been conducted that examine the types of job specific and off-site work supports provided to Bridges participants and their impact on employment outcomes. Therefore, the research questions of this study were:

1. What kind of supports did case managers provide to Bridges participants?
2. What influence did the provision of case managers' support have on participants' employment outcomes (obtaining and maintaining employment)?

2. Method

2.1. Program background

Bridges is a nation-wide community-based competitive employment program operated by the Marriott Foundation for People with Disabilities that provides case-manager support to youth with disabilities transitioning from school to work. The Marriott Foundation for People with Disabilities reported that at the national level, Bridges serves more than 1000 young people each year [13] and 90 percent of those who successfully complete the program receive offers of ongoing employment [24]. The current study utilized data from the Bridges program in Chicago, which serves youth with disabilities from 16 to 21 years of age attending the Chicago Public Schools (CPS). Ninety percent of the students that CPS serves are African-American or Hispanic, and they are likely to be at the lower end of the income scale [2].

According to Fabian, Lent and Willis [5], the main asset of the program is the individualized relationship between the case manager[2] and the youth with disabilities. Case managers from Bridges and teachers from CPS work together with the participants to support their acquisition of necessary job skills, obtaining employment, and maintaining their employment over a 2-year time period. The program starts with an evaluation of the participant's goals, interests, abilities, and barriers to employment. Then, the case manager works with the youth to develop his or her employment skills (e.g., job search, interview skills, and on-the-job behavior). The work between case managers and Bridges participants is conducted in a resource room (in school) and through one-on-one training. In addition, the case manager does job analysis and job matching through outreach to local employers that hire youth with disabili-

[1] Fabian and his colleagues [5] and Luecking [11] refer to the "Bridges Internship" that involved 12 weeks of paid competitive employment in a local business and includes placement and job-specific skills training, monitoring of student's work performance, and other activities in support of the employer-employee relationship.

[2] Case managers are also called employer representatives. However, we use only the more general term "case manager" in this study. Thus, we use the term "case manager" when the term "employer representative" was originally used in the quotes presented in the results section.

ties for competitive employment in integrated settings. Consistent weekly communication with participants is integral to the work of the case managers and serves as a mechanism for identifying, preventing and resolving challenges that interfere with participants' employment. Once participants become employed, case managers provide job specific and off-site work supports that are the object of this study and are described in the results section. Finally, Bridges case managers offer businesses the option of employing people with disabilities and gaining awareness about compliance with the ADA.

2.2. Procedures

The first author analyzed case managers' notes to answer the first research question about the types of supports they provided to participants. The notes contained a quantitative summary of the work that the case manager did with the participant, including the number of hours of job development, job interviewing, and skills development for the pre-employment period; the number of days worked with each participant and the number of total intervention hours (i.e., total time spent with the participant providing support) during the employment period. Information on days scheduled, hours worked, days absent, and days tardy was also included but was not used for this study. The notes also consisted of a narrative where the quantitative data were described in more detail, incorporating additional information about the provision of support not systematically included in the numeric summary. The narrative was key for conducting the analysis of the supports provided. The notes were divided into pre-employment and employment sections, both of which included weekly notes. The categories of support identified in the notes were added to the database containing the employment outcomes of participants (i.e., obtaining employment and days of employment).

All procedures to review the case notes ensured the confidentiality of the participants' data. All of the databases had codes to identify participants and case managers. The file with personal demographic information was kept separate from the main data files. In addition, the names of participants, case managers, employers, and businesses were substituted with generic terms (e.g., "participant," "supervisor," "employer,") or omitted in the results section to maintain the confidentiality of the data.

2.3. Reliability

We calculated inter-rater reliability [15] to estimate the reliability of the categories of job specific and off-site work supports extracted from the case notes. A trained graduate student analyzed 30% of the case notes and inter-rater reliability with the first author was 95.38% regarding categories of support.

2.4. Analyses

A three-step approach was used to identify and analyze the types of support the case managers provided. Initially, the first author read all the raw case notes and made comments in the margins that guided the reviews that followed. She used the type of support as the unit of analysis. In this first step, the first author identified the categories and labeled the themes. Her review of the supported employment literature and recurring themes found in the notes guided the extraction of categories and themes from the case managers' notes. Once she identified all the categories, she conducted a second reading to systematically classify the notes according to the new system of categories. Finally, she created a Statistical Package for the Social Sciences (SPSS) file with the categories of support as variables. She conducted a third reading in order to identify whether or not the support was provided to each participant and entered the resulting data into the SPSS file.

We ran chi-squares, t-tests, and hierarchical linear multiple regressions to analyze the provision of support and its relationship with the severity of the participants' disability and employment outcomes. The alpha level was set at 0.05 for all analyses. We determined that the exploratory nature of this research and the importance of learning as much as possible about the phenomenon under study justified this more liberal alpha level.

3. Results

3.1. Participants

This was an ex-post facto analysis of the case notes of 70 participants enrolled in the Bridges program in Chicago between 1998 and 2003. The case notes of five of the participants were incomplete, leaving a total of 65 case notes available for analysis. Almost half of the participants (44.3%) had learning disabilities, a third of them (34.3%) had developmental disabilities, and emotional-behavioral disorders were the

third most commonly reported disability (15.7%), followed by hearing impairments (5.7%). While under the Individuals with Disabilities Education Act IDEA (P.L. 105-17) [8] there is a distinction between low and high[3] incidence disabilities, both low and high incidence disabilities include degrees of severity resulting from the interaction of the person with a disability with the immediate context [28]. The Bridges program, indeed, was funded by different state and federal grants targeting individuals with more and less severe disabilities. Hence, we assessed the relationship between participants' disability and the type of grant they were funded by and found a significant relationship, X^2 (3, $N = 65$) = 55.17, $p < 0.05$. Grants for people with more severe disabilities funded services for people with emotional behavioral disorders (high incidence disabilities), developmental disabilities and hearing impairments (low incidence disabilities) whereas other types of grants funded services for people with learning disabilities (high incidence disabilities). Therefore, we used the criteria of more and less severe disabilities instead of low and high incidence disabilities in this study. Further, this distinction emphasizes the disabling character of society moving away from a medical model of disability. This sample included a majority of males (57.1%), and more than half of the participants (59.2%) were African-American, almost a third (28.2%) were Hispanic, and the less numerous (7.0%) were White. The participants' age ranged from 16 to 25 years ($M = 18.5$ years). The case managers whose case notes were used for this study were three females, one White, one Hispanic, and one African-American, and four males, three African-American and one White. The case managers' age ranged from 30 to 42, and they had been employed by Bridges for an average of 4 years.

3.2. Description of supports

We found that case managers provided job specific supports to address employment-related issues and off-site work supports to address issues in other areas of daily living. Case managers provided different types of job specific and off-site work supports to help the participants obtain employment during the pre-employment period and, once they became employed, to maintain employment during the employment period (see Table 1). Off-site work supports were not specific to the pre-employment or employment period but were available at all stages of participation in the program, with the exception of mobility training that was more frequently provided when the participant was first placed on a job.

3.2.1. Job specific supports during the pre-employment period

Case managers provided job seeking ($n = 59$), job development ($n = 64$), and job interview preparation ($n = 57$) support to Bridges participants on a consistent basis. On average, more support hours were dedicated to developing job seeking skills ($M = 11.31$) than to job development ($M = 5.43$) and job interviewing ($M = 9.45$).

All participants received some type of pre-employment support ($N = 65$) and almost all of them were provided job development support ($n = 64$). Participants received an average of 26.2 hours of pre-employment support. Regarding duration of pre-employment support, there were no significant differences, $t(63) = -0.24$, $p > 0.05$, in the provision of support to people with severe ($M = 25.42$, *SD* = 16.49) and less severe disabilities ($M = 26.95$, *SD* = 33.03).

3.2.2. Job specific supports during the employment period

Job specific supports during the employment period concerned job-related tasks (see Table 2). Before participants started their job, many needed to complete an orientation/training session that the company had for its employees.

At the company's orientation/training, the case managers provided support with participants' schedules, new-hire paperwork and on-the-job training. Related to support provided in the job-orientation/training of one of the participants, one case manager reported in his notes:

> *The participant and I went on another tour of the employer's facility to become familiarized with the work area. I assisted the participant in filling out all his paperwork.* (. . .) *the participant can understand directions, instructions, and job responsibilities clearly through vocal interaction and demonstration. But as far as taking written tests and reading materials on these same matters, the participant*

[3]Under IDEA, blind/low vision, deaf/hard-of-hearing, deaf-blind, significant developmental delay, significant physical and multiple disabilities, and autistic spectrum are considered low-incidence disabilities; learning disability, emotional behavioral disorder, mental retardation, and attention deficit/hyperactivity disorder are considered high-incidence disabilities.

Table 1
Supports provided to Bridges participants

	Pre-employment	Employment
Job specific	Job seeking skills Job development Job interview	Orientation/training Job coaching Site visits Talk to participants' supervisors Work-related problem resolution Discussion of job-related issues
	Pre-employment and Employment	
Off-site work	Discussion of daily living issues Contact with teachers Transportation support Mobility training Emotional support Home visits	

Table 2
Job specific supports provision during employment

	Provision of Support	Participants with More Severe Disabilities	Participants with Less Severe Disabilities	X^2
Orientation/training	Yes	13	8	7.32*
	No	5	18	
Job coaching	Yes	12	2	17.05*
	No	6	24	
Site visits	Yes	13	17	0.22
	No	5	9	
Talk to participants' supervisors	Yes	10	21	3.24
	No	8	5	
Work-related problem-resolution	Yes	6	11	0.36
	No	12	15	
Discussion of job-related issues	Yes	17	25	0.07
	No	1	1	

*$p < 0.05$.

is unable to successfully complete the employer's training without Bridges help.

In this study individuals with more severe disabilities were more likely to receive job-orientation/training support, X^2 (1, $N = 44$) = 7.32, $p < 0.05$ (see Table 2).

Once participants became employed, some of them needed ongoing support, such as job coaching. This type of support involved case managers or job coaches providing training regarding speed, focusing on the task, and moving from task to task as needed. The case manager often helped the participants divide their job into manageable activities. This support was terminated when the participant managed employment-related tasks without Bridges help. Follow-up was done sporadically to monitor the participant's independent performance, as we can see in the following case manager's note:

He was struggling to use both hands when bagging. At times he seemed lost. I assisted him often and explained things as we were experiencing a high volume of customers. The participant is going to need quite a bit of job coaching to where he is comfortable and fully understands his job routines. I or the other [case manager] will continue to follow up with job coaching until he is ready to go on his own.

Job coaching was also more likely to be provided to participants with more severe disabilities (see Table 2), X^2 (1, $N = 44$) = 17.05, $p < 0.05$.

The case manager also visited job sites in order to observe how the participants were performing on the job and to keep communication open. This type of support took place at the job site but was not specific to job tasks. As reported in one of the notes:

[Case manager] dropped in twice this week to see the participant at work. The participant has demonstrated for two-straight weeks that he can independently handle his job responsibilities without the assistance of Bridges. [Case manager] is slowly

phasing out frequent visits to see the participant at work.

We found no significant differences between youth with severe and less severe disabilities in the frequency of site visits (see Table 2), X^2 (1, $N = 44$) = 0.22, $p > 0.05$.

The case managers also spent much of their time providing support by talking to participants' supervisors. The communication between the case manager and job supervisor served two purposes. First, the case manager asked for feedback about the participant's work. Second, the case manager and the supervisor had conversations about any additional issues that concerned the participant. As reported in one of the notes:

The supervisor was very busy but spoke to me briefly. The supervisor expressed she is very fond of the participant and understands the pressure she is under now. [Case manager] informed the supervisor I will encourage student to keep in touch and thanked her for being so understanding.

Regarding talking to participants' supervisors, we did not find significant differences between people with severe and less severe disabilities X^2 (1, $N = 44$) = 3.24, $p > 0.05$ (see Table 2).

A very important task that the case managers performed was to help with work-related problem resolution. The case managers provided support to solve any problematic situation between participant and employer or supervisor. Furthermore, the case manager also communicated to the supervisor any issue that was affecting the participant's capacity to work or process the accommodations he/she needed. For instance:

Student shared that he was given an extra check and cashed it. Supervisor will have to hold back one week's pay due to mistake. Student is upset(. . .). *[Case manager] informed supervisor* (*that*) *discussed incident with student and asked if he can speak to student to explain again why a check will be withheld. Supervisor left a message stating he will speak to student again* (*about*) *check incident and appreciated me calling.*

No differences were observed between youth with severe and less severe disabilities regarding the provision of this support, X^2 (1, $N = 44$) = 0.36, $p > 0.05$ (see Table 2).

Finally, the case managers provided support through discussion of job-related issues, such as informing and consulting with participants about pay checks (e.g., explaining deductions), helping participants apply for another position, and addressing problems with coworkers. These discussions of job-related issues occurred in one-on-one talks or in the class as part of the curriculum training. Representing a typical one-on-one talk about evaluation, one case manager reported:

[Case manager] met with the participant to continue discussion on expectations of employers. We read and reviewed the purposes of performance evaluation. The participant and I completed an example evaluation form. The participant rated herself high in all areas and felt she would continue to progress in each area. The participant was encouraged to speak to her supervisor about their policy regarding evaluations.

The provision of this type of support was not related to the severity of the participants' disability, X^2 (1, $N = 44$) = 0.07, $p > 0.05$ (see Table 2).

Case managers spent a great deal of time providing these types of supports to participants. Given the additional life challenges of minorities with disabilities who live in the inner city, case managers needed to complement work supports with off-site work supports.

3.2.3. Off-site work supports during the pre-employment and employment periods

Off-site work supports concerned participants' community life. Case managers spent much of their time in the community helping with daily living issues and needs related to family, socio-economics, housing, health, and work preparation. Representing a family related barrier to employment, one case manager noted:

He (*father*) *told [case manager] the participant couldn't return call because there was a family problem*(. . .) *he sounded drunk but did inform [case manager] student had to quit the job because of family situation*(. . .) *student finally returned the call [and] told [case manager] that his home situation isn't going well.*

Economic problems were also a common topic that these participants faced. For example, a case manager wrote:

The family is having financial problems and must move into (*a*) *smaller apartment. Parent*(. . .) *feels the participant is very concerned with their problem and is losing focus* (*on*) *finding good fulltime employment and finding out about training for carpentry. Parent was advised to continue to encourage student to follow through with program.*

Housing was also a recurrent topic. As one example demonstrates:

> *The supervisor called [case manager] concerned about the participant's lack of sleep and request to go home early due to sickness. [Case manager] will talk to her parents about noise level and disruptions in her home. [Case manager] will also look for emergency housing referrals for pregnant mothers.* (. . .) *she currently needs an additional $650 to secure a one bedroom apartment. [Case manager] called the participant to discuss living situation at home and offered housing referrals.*

Health issues were commonly discussed with the participants. For example, one case manager noted: "*Her optometrist appointment was never scheduled with the nurse, so she will be finding another eye doctor. [Case manager] gave suggestions on how to locate a doctor who accepts Medicaid.*"

Also, preparing for work meant arranging daily issues. For instance,

> *[Case manager] congratulated her and will review how to prepare for the first day of work on Thursday. [Case manager] spoke to the participant about* (. . .) *organizing her personal affairs: son's daycare; transportation money to and from work; mobility route; and opening up bank account.*

Youth with less severe disabilities were more likely than youth with more severe disabilities to get off-site work support, X^2 (1, $N = 65$) = 9.81, $p < 0.05$ (see Table 3).

Bridges case managers also worked in collaboration with schools and businesses. Therefore, case managers were in continuous contact with teachers. Case managers and teachers talked about participants' work, school, or other issues that influenced their ability to work. As one example, a case manager noted:

Participant stated he had to ask his friends for money for transportation. Participant stated he could not ask his parents because he was over the age of 18. The professor of (school) stated that students are given money for transportation to and from work. Participant was advised on how to budget his earnings and money given to him from school.

No differences were found between students with severe and less severe disabilities regarding the provision of this type of support, X^2 (1, $N = 65$) = 0.75, $p > 0.05$ (see Table 3).

As inner city youth, Bridges participants frequently used public transportation. Transportation support was provided to the participants to take part in job development, to participate in job interviews, or to get oriented. Case managers drove the participants to different companies and job fairs for job development and job interviews and provided them with tips to get oriented. Representing a typical transportation support, one case manager noted:

> *The participant reported that she was 10 minutes late on Tuesday because she got lost on campus*(. . .). *[Case manager] drove her over to school and showed her a landmark to use while walking on campus.*

No differences were detected between students with severe and less severe disabilities regarding this support, X^2 (1, $N = 65$) = 2.62, $p > 0.05$ (see Table 3).

Some participants needed more formal transportation support called mobility training. This type of training usually took place after the participant was placed on a job to help the participant manage the route from home to work including how to use transportation, manage time, and get oriented. As one example showed:

> *The participant continues to get mobility training on Thursdays and Fridays*(. . .). *She still needs to improve on her awareness to see her stop and crossing the street*(. . .). *She needs to be taught to cross the street at the stoplight instead of having to cross such a busy street.*

There were no significant differences between youth with severe and less severe disabilities regarding mobility training, X^2 (1, $N = 65$) = 4.97, $p > 0.05$ (see Table 3).

Case managers witnessed many problematic situations during participants' struggles to get and maintain employment. On many occasions they had to provide emotional support to the participants. Emotional support was provided to participants in three different ways: praising the participant, providing counseling, and helping participants overcome adverse situations. The following example illustrates how a case manager provided counseling to one participant:

> *The participant stated he was depressed due to frustration with adults in his life. I encouraged student to speak to school counselor* (*about*) *personal issues – upset about parents being divorced and other issues student didn't go into detail. I informed student I would contact him over the holidays to make sure he is okay.*

Table 3
Off-site work supports provision

	Provision of Support	Participants. With More Severe Disabilities	Participants with Less severe Disabilities	X^2
Discussion of daily living issues	Yes	8	21	9.81*
	No	24	12	
Contact with teachers	Yes	13	10	0.75
	No	19	23	
Transportation support	Yes	16	23	2.62
	No	16	10	
Mobility training	Yes	8	3	4.97
	No	10	7	
Emotional support	Yes	11	18	2.67
	No	21	15	
Home visits	Yes	17	17	0.17
	No	15	16	

*$p < 0.05$.

No significant differences between youth with severe and less severe disabilities were found in the provision of emotional support, $X^2\,(1, N = 65) = 2.67, p > 0.05$ (see Table 3).

Case managers tried to get families involved in the Bridges program. They made home visits to talk to families about logistics that needed to be discussed for the participant to get and maintain employment and to obtain the family support to participate in the program. For instance,

> *Mom shared that she applied for SSI for the boys but feels work experience is more important if the participant can handle it. Mother was very welcoming and expresses she wants what is best for the participant. The participant is accepted into program.*

Home visits were provided with no significant differences between participants with severe and less severe disabilities, X^2 (1, $N = 65$) = 0.17, $p > 0.05$ (see Table 3).

3.3. Support and employment outcomes

The second research question led us to assess the influence of the supports identified in the previous section on participants' employment outcomes (obtaining employment and number of days of employment) for people with severe and less severe disabilities.

First, we examined the influence of pre-employment supports on obtaining employment. We conducted Chi-square analyses with both samples. The results showed that participants with less severe disabilities who received job interview preparation support were more likely to obtain employment than those who did not receive this form of support, X^2 (1, $N = 33$) = 7.88, $p < 0.05$. None of the pre-employment supports significantly influenced obtaining employment for people with more severe disabilities.

Second, we ran a hierarchical linear multiple regression with each sample to examine the influence of the specific types of supports on employment retention. We entered the variables in the analysis in two separate blocks. Block one included job specific supports and block two included job specific and off-site work supports. As such, we analyzed the contribution of job specific and off-site work supports, as well as the unique individual contribution of each type of support.

For people with less severe disabilities, the results showed that the provision of job specific, $F(26, 6) = 4.81, p < 0.05$, and off-site work supports, $F(20, 12) = 3.32$, $p < 0.05$, significantly contributed to higher employment retention. Job specific supports explained 52.6 percent (ΔR^2) of employment retention variance. Off-site work supports explained an additional 13.9 percent (ΔR^2) of employment retention variance. When we examined the unique contribution of each type of support on employment retention (see Table 4), only the support "discussion of job-related issues" was statistically significant, $\beta = 0.36$, $t(32) = 2.08, p < 0.05$.

For people with more severe disabilities, we found that the provision of job specific, $F(25, 6) = 8.04, p < 0.05$, and off-site work supports, $F(19, 12) = 3.36$, $p < 0.05$, also significantly contributed to higher employment retention. Job specific supports explained 65.9 percent (ΔR^2) of employment retention variance. Off-site work supports explained an additional 2.1 percent (ΔR^2) of employment retention variance. We found that only the provision of "site visits" support, $\beta = 0.53$, $t(31) = 2.46$, $p < 0.05$, was statistically significant when we examined the unique contribution of each type of support on employment retention (see Table 5).

Table 4
Hierarchical Linear Regression for people with less severe disabilities

Supports	B	SE B	β
Step 1			
Orientation/ training	−17.63	12.92	−0.26
Job coaching	−22.32	21.51	−0.32
Discussion of job-related issues	25.19	13.60	0.37
Talk to participants' supervisors	36.84	19.68	0.50
Work-related problem resolution	−1.49	15.02	−0.02
Site visits	36.14	14.67	0.53*
Step 2			
Orientation/training	−12.59	15.86	−0.18
Job coaching	−9.62	27.69	−0.14
Discussion of job-related issues	8.54	26.15	0.13
Talk to participants' supervisors	37.24	23.11	0.51
Work-related problem resolution	−5.73	17.95	−0.07
Site visits	36.93	17.90	0.54
Discussion of daily living issues	6.44	12.94	0.08
Contact with teachers	6.10	13.80	0.09
Home visits	−2.53	11.12	−0.04
Transportation Support	−7.86	10.63	−0.12
Emotional Support	3.28	15.31	0.05
Mobility training	1.81	8.01	0.05

*$p < 0.05$.

Table 5
Hierarchical Linear Regression for people with more severe disabilities

Supports	B	SE B	β
Step 1			
Orientation/training	32.07	25.63	0.22
Job coaching	−67.53	41.18	−0.25
Discussion of job-related issues	54.22	26.04	0.36*
Talk to participants' supervisors	11.00	28.78	0.08
Work-related problem resolution	33.02	22.42	0.24
Site visits	16.98	23.58	0.13
Step 2			
Orientation/training	27.62	30.38	0.19
Job coaching	−75.93	46.92	−0.28
Discussion of job-related issues	86.93	50.84	0.58
Talk to participants' supervisors	19.47	31.36	0.15
Work-related problem resolution	42.23	24.25	0.31
Site visits	15.98	23.67	0.13
Discussion of daily living issues	26.87	22.96	0.20
Contact with teachers	−5.36	23.84	−0.04
Home visits	21.82	19.09	0.17
Transportation Support	−20.85	25.02	−0.15
Emotional Support	−2.99	23.96	−0.02
Mobility training	−30.77	23.57	−0.40

*p< 0.05.

4. Discussion

This was an exploratory study that examined the types of supports that case managers of the transition program Bridges from School to Work provided to inner city ethnic minority youth with disabilities and the influence of these supports on obtaining and maintaining employment. Aside from disability, other factors such as poverty, lack of access to services, and scarce family support, tended to limit the employment outcomes of these youth. Bridges case managers have expanded the focus of support from an exclusive employment focus to include participants' family and community, providing a holistic approach that addressed a wider variety of factors influencing participants' employment outcomes.

In the course of our investigation, we found that case managers provided work supports during preemployment to help participants obtain a job, during employment to help them maintain it, and consistently, case managers provided off-site work supports to address community issues. Work supports during preemployment consisted of working on job seeking, job development, and job interviewing skills. We found that the amount of support provided to obtain employment was similar for youth with severe and less severe disabilities. Once participants became employed, additional work supports were provided including orientation/training, job coaching, site visits, talking to participants' supervisors, resolving work-related problems, and discussing job-related issues. Off-site work supports involved discussion of daily living issues, contact with teachers, transportation, mobility training, emotional supports, and home visits.

The notes analyzed in this study revealed that economic issues cut across many of the community needs that these youth group experienced, and certainly added new barriers to obtain successful employment outcomes. This finding, concurrently documented in the literature, leads us to regard the economic dimension as critically important. As Fujiura and Yamaki [7] concluded, the relationship between ethnicity and the prevalence of disability is influenced by income. While we need to attend to the specific needs of ethnic minority youth with disabilities within supported employment, we need to carefully examine the structural system that positions this group of people in a more disadvantaged position. As Russell [23] argued, the economic structure that systematically places people with disabilities at the bottom cannot be surmounted simply with anti-discrimination laws.

Although supports were largely available to all participants, the provision of different types of supports varied for participants with more and less severe disabilities. We observed that case managers provided more orientation/training and job coaching to participants with more severe disabilities. Also, case managers spent more time discussing non job-related issues with people with less severe disabilities. Previous literature has reported that support is generally provided

based on need. As Moore, Feist-Price, and Alston [16] noted, the differences in the functional capabilities between people with severe and mild disabilities may require different types and amounts of services related to supported employment. Furthermore, we also observed that case managers progressively removed supports such as job coaching, mobility training, and site visits when participants excelled on the job without their help. Wehman and his colleagues [30] found that the provision of the exact level and nature of supports by the employment specialist to the supported employee was an indicator of quality in competitive employment programs.

Job specific supports were related to obtaining employment. The results revealed that when case managers provided job interview preparation, people with less severe disabilities were more likely to obtain employment. However, this support was not provided independent of job seeking skills or job development. Participants receiving this support had previously received support on job seeking skills and job development. In other words, youth with disabilities obtained job interviews by doing job development and by developing job seeking skills. Once they obtained interviews, they received the support to prepare for them.

Both job specific and off-site work supports were related to maintaining employment over time. However, we observed that the contribution that off-site work supports made to employment retention was higher for people with less severe disabilities compared to youth with severe disabilities. Funding limited the number of hours of support that case managers spent with participants. People with less severe disabilities did not require intensive supports such as job coaching or orientation/training and, therefore, case managers could dedicate more time talking to participants about their jobs and other community issues. The individual supports differentially predicted employment outcomes. Site visits were related to maintaining employment for people with more severe disabilities. This finding was consistent with previous research that has identified the availability of the supporter as an important factor for supported employees' satisfaction. Employment retention for people with less severe disabilities was predicted by support discussing issues related to the job. This is also consistent with Jacobsen's [9] results.

In conclusion, this study demonstrated that Bridges case managers in Chicago complemented job specific support with much needed off-site work support and that both of these types of supports were related to obtaining and maintaining employment. These results have implications for the provision of services and policy making. Therefore, the authors recommend that the provision of services accounts for these differences in the needs of individuals from different communities and structure the work of the case manager to address them. Furthermore, special educators and transition personnel must consider the multiple challenges that these youth experience in their lives and make sustained efforts to refer them to appropriate community-based agencies that can complement their training efforts. In terms of policy, funds and human resources need to be allocated towards the comprehensive provision of supports that systematically includes those that address broader community needs. In addition, there is still a need for a stronger commitment to the transformation of the systematic underprivileged position that urban youth with disabilities experience.

5. Limitations

This was an ex-post facto study in which only case notes were analyzed and there was no interaction with participants. Only the perspectives of the case managers were examined. Moreover, the small sample size and non-random selection limited the generalization of the findings. Finally, the nature of the case notes added other limitations, such as inconsistency and subjectivity in the narratives as they were written retrospectively.

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