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The Effectiveness of Supported Employment in People With Dual Disorders

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Abstract

Objective—This study compared the effectiveness of the Individual Placement and Support (IPS) model of supported employment to control vocational rehabilitation programs for improving the competitive work outcomes of people with a severe mental illness and co-occurring substance use disorder.

Methods—A secondary data analysis was conducted drawing from four randomized controlled trials comparing IPS supported employment to conventional vocational rehabilitation programs for severe mental illness, and focusing on the 106 clients with a recent (past 6 months) substance use disorder. Competitive work outcomes were tracked across an 18-month follow-up period. Analyses compared the IPS and comparison vocational programs on cumulative work over the 18 months, including attainment of work, hours and weeks worked, job tenure, wages earned, and days to first job.

Results—In the total study group, clients who participated in IPS had better competitive work outcomes than those who participated in a comparison program, with cumulative employment rates of 60% vs. 24%, respectively. Among clients who obtained work during the study period, those receiving IPS obtained their first job significantly more quickly and were more likely to work 20 or more hours per week at some point during the 18-month follow-up.

Conclusions—The IPS model of supported employment is more effective than alternative vocational rehabilitation models at improving the competitive work outcomes of clients with a dual disorder.

Keywords

Vocational Rehabilitation; Supported Employment; Individual Placement and Support; Employment; Severe Mental Illness; Substance Use Disorder

Competitive work is a common goal in people with a severe mental illness (e.g., schizophrenia, bipolar disorder, treatment refractory major depression) and substance use

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disorder (or dual disorder) (Strickler, Whitley, Becker, & Drake, 2009). Despite this fact, relatively little has been firmly established as to whether substance use problems interfere with the ability of clients with severe mental illness to work or to benefit from vocational rehabilitation programs. There are several reasons to expect that substance use disorders could contribute to worse vocational functioning in this population. There is fairly strong evidence that substance use problems, especially drug use disorders, are related to lower levels of education in people with a severe mental illness (Kavanagh et al., 2004; Mueser, Yarnold, & Bellack, 1992; Mueser et al., 1990; Mueser et al., 2000), which is predictive of worse employment outcomes in this population (Arns & Linney, 1995; Lorei & Gurel, 1973; Mueser, Salyers, & Mueser, 2001). In addition, according to the DSM series (American Psychiatric Association, 1980, 1987, 1994), one criterion for the diagnosis of substance abuse is the persistent interference of alcohol and drug use with role functioning in areas such as work or school. Some research has shown that the presence of a substance use disorder is associated with lower levels of competitive work in people with a severe mental illness (Kozaric-Kovacic, Folnegovic-Smalc, Folnegovic, & Marusic, 1995; Todd et al., 2004). However, the evidence is mixed, with other studies finding no association between employment and substance use problems in this population, or paradoxically better vocational outcomes for clients with a comorbid substance use disorder compared to clients with severe mental illness alone (Cantwell, 2003).

There is also mixed evidence pertaining to the question of whether substance use disorders interfere with the ability to benefit from vocational rehabilitation in people with severe mental illness. Several studies have found that substance use disorders are not predictive of work outcomes in clients with severe mental illness participating in a variety of different vocational rehabilitation programs (Bell, Greig, Gill, Whelahan, & Bryson, 2002; Rogers, Anthony, Cohen, & Davies, 1997). In one large study of veterans participating in a range of vocational rehabilitation programs (Drebing et al., 2002), clients with a severe mental illness alone were more likely to participate in sheltered workshops than clients with a dual disorder, and less likely to be discharged due to rule violations; however, there were no differences between the groups in rates of competitive work at discharge from vocational rehabilitation programs. An early study of supported employment found that substance use disorders were not related to vocational outcomes in people with a dual disorder (Sengupta, Drake, & McHugo, 1998). Similarly, analyses from the multi-site Employment Demonstration Project that evaluated a variety of supported employment programs for people with severe mental illness found that comorbid substance use disorders were not related to competitive work outcomes (Cook et al., 2007; Razzano et al., 2005).

While it is unclear to what extent substance use problems interfere with the ability of people with severe mental illness to benefit from vocational rehabilitation, a related question is whether vocational programs differ in their effectiveness at improving employment outcomes in people with a dual disorder. Controlled research has consistently demonstrated that supported employment, especially the Individual Placement and Support (IPS) model (Becker & Drake, 2003), is more effective than a range of other vocational rehabilitation approaches (e.g., group skills training, brokered vocational services, transitional employment programs) (Bond, Drake, & Becker, 2008). However, it has not yet been established whether clients with a dual disorder who participate in supported employment have better work outcomes than other vocational programs. This paper describes a secondary analysis of aggregated data from four randomized controlled trials (RCTs) of the IPS model of supported employment, using participants from these studies who had diagnoses of co-occurring substance use disorders. We examine the hypothesis that people with a dual disorder benefit more from IPS supported employment than from other vocational services.

Methods

Overview

This study used archival data from four independent RCTs to determine the effect of IPS supported employment on clients with co-occurring substance use disorders. Institutional Review Boards at local sites and participating universities approved the four studies. In addition, the Institutional Review Board of Indiana University-Purdue University Indianapolis approved the data re-analyses reported here.

Study Group and Procedures

The study group consisted of study participants with co-occurring substance use disorders from four RCTs of IPS supported employment versus usual vocational services (Bond et al., 2007; Drake et al., 1999; Drake, McHugo, Becker, Anthony, & Clark, 1996; Mueser et al., 2004). All four studies compared a newly established IPS program to one or more well-established vocational programs. In all four studies, participants were recruited from mental health centers (or a psychiatric rehabilitation agency in the Chicago study). Participants were adults who met each state's criteria for severe mental illness, typically a DSM-IV Axis I or II diagnosis plus severe and persistent impairment in psychosocial functioning. All participants were unemployed at the time of study admission. Other common eligibility criteria included expressed interest in competitive work, ability and willingness to give informed consent, and absence of significant medical conditions that would preclude working or participating in assessment interviews. In addition, all participants were required to attend at least two research information meetings in which the project was explained, after which they gave written informed consent to participate in the study (Drake, Becker, & Anthony, 1994). All four studies used a similar protocol to track employment outcomes and psychiatric symptoms. Importantly, none of the studies excluded clients on the basis of substance use disorders, illness severity, lack of readiness, poor job history, or other clinical factors.

Data Sources

Despite similar methods, the RCTs differed on geographic location, control group interventions, and length of follow-up. The four studies were as follows:

The **NH study** (Drake, McHugo et al., 1996) was conducted in two mental health centers in Concord and Manchester, New Hampshire. It compared IPS ($N = 74$) to group skills training ($n = 69$), in which a rehabilitation agency unaffiliated with the mental health centers provided prevocational skills training, individualized placement, and follow-along support.

The **DC study** (Drake et al., 1999) recruited clients in an intensive case management program in Washington, DC. IPS ($N = 76$) was compared with enhanced vocational rehabilitation ($n = 76$), in which rehabilitation agencies provided stepwise vocational services, primarily paid work adjustment training in a sheltered workshop.

In the **Hartford study** (Mueser et al., 2004) clients receiving services at a mental health center in Hartford, Connecticut, were randomly assigned to IPS ($n = 68$), a psychosocial rehabilitation program ($n = 67$), or standard services ($N = 69$). Approximately one-third of the study group was Latino, and vocational rehabilitation services were available in Spanish. Psychosocial rehabilitation program participants attended a series of preparatory training activities, followed by transitional employment and assistance with obtaining competitive work. Standard services involved access to two off-site employment programs, one providing brokered supported employment (which lacked the integrated services offered by IPS) and the other providing supervised janitorial enclaves.

In the **Chicago study** (Bond et al., 2007) clients attending two day programs at a comprehensive psychiatric rehabilitation agency in Chicago, Illinois, were randomly assigned to IPS (N = 96) or a diversified placement approach (N = 98), which offered stepwise preparation for competitive employment, including prevocational training, agency-run business opportunities, and group and individual placements. Both vocational programs were offered at two locations, Thresholds North and Thresholds South.

Study group recruitment—Among clients attending informational groups, the rates of consenting to participate were as follows: NH study (50.4%) (Drake, McHugo et al., 1996), DC study (76.0%) (Drake et al., 1999), Hartford study (72.1%) (Mueser et al., 2004), and Chicago study (67.6%) (Bond et al., 2007). Overall, 699 (65.8%) of 1063 clients agreed to participate across the four studies. Reasons for nonparticipation were diverse and included the lack of a vocational goal and concerns about losing benefits. Six Chicago clients were administratively dropped shortly after study entry, leaving a final intent-to-treat study group of 693.

Missing data—Twelve participants (7 in IPS and 5 controls) with incomplete follow-up data were excluded from analyses. The authors of the Hartford study included the 6 cases with incomplete vocational data in their intent-to-treat analyses, with zeros substituted for work during periods of missing data. Across the 4 RCTs, the combined study group size was 681 (IPS study group N = 307, comparison study group N = 374).

Participants with co-occurring substance use disorders—For the present secondary analysis, clients with a recent (within past 6 months) DSM-III-R or DSM-IV substance use disorder (either abuse or dependence) were selected (N = 106), based on the Alcohol Use Scale and Drug Use Scale completed by their case manager at the baseline of each study (see Measures section). Demographic, diagnostic, and clinical characteristics of the study group are summarized in Table 1.

Standardization of IPS

The IPS program model was standardized across the four studies, by ensuring fidelity to the IPS model through intensive training/consultation and ongoing monitoring during using the IPS Fidelity Scale (Bond, Becker, Drake, & Vogler, 1997). This fidelity scale describes 15 critical features of the IPS model (e.g., rapid job search, attention to client preferences) that are well described in the literature (Becker & Drake, 2003).

Common Features in the Comparison Interventions

All of the comparison vocational services were highly regarded, active programs, considered at the time to be state-of-the-art. Common principles shared among these comparison groups were the emphasis on *stepwise entry* into competitive employment (with the exception of one subprogram in the Hartford study) and *brokered services* in which the vocational program was provided by a separate agency from the mental health program (with the exception of the Chicago program).

Measures

Diagnosis—Participants' psychiatric diagnoses were determined at baseline using the *Structured Clinical Interview for DSM (SCID)*, a semi-structured diagnostic instrument. In the NH and DC studies, a version for DSM-III-R (Spitzer, Williams, Gibbon, & First, 1988) was used; the Hartford and Chicago studies used a version for DSM-IV (First, Spitzer, Gibbon, & Williams, 1996). Good inter-rater and test-retest reliabilities were reported in the original studies.

Substance Use—At the baseline for each study, case managers rated their clients on the *Alcohol Use Scale* (AUS) and *Drug Use Scale* (DUS), based on the worst one month period of substance use over the past 6 months, using multiple sources of information (e.g., participant self-report, collateral reports, behavioral observations, urinalysis results) (Mueser, Drake et al., 1995). The AUS and DUS are 5-point scales, based on the following criteria: 1 = no use, 2 = use without consistent impairment, 3 = abuse, 4 = dependence, and 5 = severe dependence including institutionalization. The scales have demonstrated high reliability and validity across multiple studies (Drake, Mueser, & McHugo, 1996; Drake et al., 1990; Mueser, Nishith, Tracy, DeGirolamo, & Molinaro, 1995). Since scores on the AUS/DUS of 3 or higher correspond to the DSM definitions of substance abuse or dependence, a minimum score of 3 on either of these scales was used as cut-off for presence of a recent substance use disorder and the selection of the study group.

Symptoms—The NH and DC studies measured symptoms using the expanded *Brief Psychiatric Rating Scale* (BPRS-E) (Lukoff, Nuechterlein, & Ventura, 1986), a 24-item, semi-structured interview that rates psychopathological symptoms present during the previous two weeks. Each item is rated on a 7-point scale ranging from 1 (“not present”) to 7 (“extremely severe”). The Hartford and Chicago studies measured symptoms over the past two weeks using the *Positive and Negative Syndrome Scale* (PANSS) (Kay, Opler, & Fiszbein, 1987), a 30-item scale using similar procedures. Good to excellent interrater reliability was obtained in the original studies for both scales.

Because the original 18-item BPRS (Overall & Gorham, 1962) is embedded in the PANSS, the current study used scores on the 18 common items to measure symptom severity across RCTs. A previous factor analysis of the BPRS (Mueser, Curran, & McHugo, 1997) defined three symptom clusters: *Thought Disturbance*, *Anergia*, and *Disorganization*. Scores of items on each factor were averaged to derive subscale scores. We also examined the BPRS *Depression* item. The sum of all item scores was used for overall symptomatology.

Competitive work outcomes—Competitive employment was defined as employment in integrated work settings in the competitive job market at prevailing wages with supervision provided by personnel employed by the business. The following competitive work outcomes over an 18-month follow-up period were examined: job acquisition, total weeks worked, job tenure (weeks worked on the longest-held competitive job), total hours worked, ever working 20 or more hours per week, wages earned, and days to first job.

Statistical Analyses

To evaluate differences at baseline between the clients randomized to IPS compared to the comparison programs on demographic, diagnostic, clinical, and background characteristics, we computed *t*-tests for continuous variables and chi-square tests for categorical variables.

The vocational outcomes of clients in the IPS and control vocational programs were compared first in the entire study group of randomized clients, and then in a subgroup of clients who worked at some point during the 18-month follow-up period. For the entire study group, rates of job acquisition over the 18-month study period, as well as the rate of clients who ever worked 20 hours/week or more during the study, were compared between the two groups using chi-square analyses. The distributions of the continuous vocational outcomes were positively skewed, and thus these variables were log transformed prior to conducting statistical tests. *T*-tests were computed to compare total weeks worked, job tenure, total hours worked, and total wages earned for the entire study group. Similar analyses were conducted to compare the same vocational outcomes (except job acquisition) for the subgroup of clients who worked during the study, and to examine the number of days

to the first job. Effect sizes (d) for the difference between the two vocational programs on the continuous vocational outcomes were computed based on Cohen (1988). Effect sizes for job acquisition and ever worked 20 hours/week were estimated using an arcsine transformation (Lipsey, 1990).

Results

Table 1 summarizes the results of the chi-square analyses and t -tests comparing clients in the IPS and control vocational programs at baseline. Only one difference was statistically significant: clients who were in IPS and who had an alcohol use disorder at baseline had significantly more severe ratings of alcohol use on the AUS than similar clients who were in the control vocational programs.

The vocational outcomes of the IPS and control vocational programs, and results of the analyses comparing the programs, are summarized in Table 2. For the analyses of the total study group, dually diagnosed clients randomized to IPS had significantly better vocational outcomes across all the measures than similar clients in the control vocational programs. A higher proportion of clients in the IPS program obtained competitive work and ever worked 20 or more hours per week than clients in the control programs. IPS clients also worked more weeks and hours, had a longer job tenure, and earned more wages than control clients.

Analyses of the subgroup of clients who worked revealed two significant differences favoring the IPS program over the control programs. Working clients in IPS started their first jobs sooner and were more likely to work 20 or more hours per week than clients in the control programs. The differences between working clients in IPS and the control program in total weeks worked, total hours worked, total wages earned, and job tenure were not significant.

Discussion

Clients with a dual disorder who were randomized to the IPS model of supported employment had significantly better competitive work outcomes, including higher rates of employment, more weeks and hours worked, and more wages earned, than those who received the comparison vocational programs. Clients who obtained employment had some advantages over those in control conditions, even though the higher overall employment rate suggests that clients with less potential or readiness were working in the IPS conditions. The overall work outcomes of the dually diagnosed clients who received IPS were comparable to the employment outcomes found in RCTs evaluating supported employment in more general populations of people with severe mental illness (Bond et al., 2008).

These results underscore the importance of the zero-exclusion criterion for participation in IPS supported employment (Becker & Drake, 2003). This criterion specifies that all clients who want competitive work should be allowed to participate in supported employment, regardless of any other challenges they experience, such as symptoms, recent relapses, cognitive impairment, or substance abuse. The IPS supported employment model in fact includes guidelines for assisting clients with active substance use disorders (Becker, Drake, & Naughton, 2005).

These findings suggest that supported employment may be an important rehabilitation approach for many people with dual diagnoses. Much past research on the treatment of dual disorders has suffered from an overly narrow focus on the reduction of substance use or attainment of abstinence as the only treatment goal. Other goals are, however, highly valued by people with dual disorders (Drake, McHugo, Xie, Packard, & Helmstetter, 2006). For example, studies of supported housing assume that safe and stable housing is a valued

outcome even while people are using alcohol and drugs (Tsemberis, Gulcur, & Nakae, 2004). Similarly, people who are actively using substances often value increased income and regular employment as outcomes (Becker et al., 2005). Further, longitudinal research has shown that employment is predictive of future recovery from substance use disorders in this population (Xie, Drake, McHugo, Xie, & Mohandas, 2010).

The main focus of supported employment on work may have beneficial effects on quality of life in people with a dual disorder in several ways. First, competitive work can improve the financial standing of individuals, which is frequently strained in people with a dual disorder, often leading to loss of housing (Drake & Brunette, 1998). Second, work can improve feelings of self-esteem and self-worth in people with severe mental illness (Arns & Linney, 1993; Torrey, Mueser, & Drake, 2000), which can provide some alleviation from the high rates of dysphoria often present in people with a dual disorder (Bartels, Drake, & McHugo, 1992; Blanchard et al., 1999; Brunette, Mueser, Xie, & Drake, 1997). Third, work can provide social opportunities for people to connect with others in a context that is valued by society. Work may promote community integration, and reduce stigmatizing and self-stigmatizing attitudes about mental illness (Farina, 1998).

The focus of supported employment on work may also have indirect effects on substance abuse in clients with a dual disorder. Research has demonstrated the importance of motivation-based interventions such as motivational interviewing for this population (Drake, O'Neal, & Wallach, 2008; Mueser, Noordsy, Drake, & Fox, 2003). For many people with a dual disorder, the goal of getting and keeping a job serves as a primary motivation for focusing on addressing the problem of substance abuse. Work may facilitate recovery from substance use disorders by providing all of the above benefits, including relationships with people who do not use substances (Alverson, Alverson, & Drake, 2000; Xie et al., 2010).

Another indirect effect of work on substance abuse may be related to the beneficial effects of increasing time in structured roles. Lack of engagement in meaningful, structured activities is associated with more severe psychiatric symptoms in people with a severe mental illness (Corrigan, Liberman, & Wong, 1993; Rosen, Sussman, Mueser, Lyons, & Davis, 1981; Wong et al., 1987). Involvement of such individuals in paid work is associated with modest reductions in psychiatric symptoms (Bell, Lysaker, & Milstein, 1996; Bond et al., 2001; Mueser, Becker et al., 1997). Competitive work may provide structure and reduce excess free time in clients with a dual disorder, decreasing opportunities to use substances, while also reducing some of the mental health symptoms that can contribute to substance abuse.

Although IPS supported employment was effective at improving the work outcomes in clients with a dual disorder, these individuals are often underrepresented in supported employment programs. For example, across the four IPS studies from which the present data were drawn, and the 651 clients with severe mental illness who had baseline AUS and DUS data completed by their case manager, only 106 (16%) of the clients had a recent (past 6 months) substance use disorder. This is lower than the estimated 25-40 percent rate of recent substance use disorders in people with a severe mental illness (Mueser, Bennett, & Kushner, 1995).

It is unclear whether clients with a dual disorder are less likely to be encouraged to pursue work when they are abusing substances, whether they are less interested in work than similar clients with only a severe mental illness, or both. The present findings suggest that more efforts are needed to inform clinicians that clients with a dual disorder can benefit from supported employment, even when their substance use disorder is active. In addition, clients with a dual disorder may benefit from learning that they can begin to pursue their vocational

goals, with the help of a supported employment program, before they have attained a sustained period of sobriety.

Research on the longitudinal course of dual disorders in clients with severe mental illness has shown that competitive work precedes and is associated with the remission of substance use disorders (Xie et al., 2010). The findings from this study indicate that sobriety is not a prerequisite for benefiting from supported employment for clients with a dual disorder. Furthermore, as previously discussed, pursuing work as a goal may have direct and indirect effects on motivation to work on substance use problems, and success at substance use reduction and abstinence. Increasing competitive work is an important quality of life outcome for people with a dual disorder. Efforts are needed to increase access to the IPS model of supported employment for this population, and to inform clinicians, program leaders, clients, and family members about the potential benefits of this evidence-based vocational program.

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Table 1

Summary statistics comparing IPS sample ($n = 47$) to control sample ($n = 59$)

Variable	IPS		Control	Statistic	p
Work History					
Paid Work in the Community	Mean (SD)		Mean (SD)		
During Past 5 Yrs (wks)	47.26 (54.23)		48.21 (63.86)	t (104) = -.08	.94
Demographic Characteristics					
Age	38.51 (7.61)		39.22 (7.87)	t (104) = -.47	.64
Gender	n (%)		n (%)	χ ² (1, N=106) = .33	.56
male	31 (66.0%)		42 (71.2%)		
female	16 (34.0%)		17 (28.8%)		
Race/Ethnicity				χ ² (3, N=106) = 1.90	.59
Caucasian	9 (19.1%)		11 (18.6%)		
African American	33 (70.2%)		36 (61.0%)		
Latino	4 (8.5%)		10 (16.9%)		
other	1 (2.1%)		2 (3.4%)		
Education Level				χ ² (2, N=106) = 2.42	.30
< high school	17 (36.2%)		30 (50.8%)		
= high school	19 (40.4%)		17 (28.8%)		
> high school	11 (23.4%)		12 (20.3%)		
Marital Status				χ ² (1, N=106) = .19	.66
never married	36 (76.6%)		43 (72.9%)		
ever married/living together	11 (23.4%)		16 (27.1%)		
Disability Benefits				χ ² (3, N=106) = 5.75	.12
SSI only	20 (42.5%)		23 (39.0%)		
SSDI only	11 (23.4%)		15 (25.4%)		
SSI & SSDI	10 (21.3%)		5 (8.5%)		
neither	6 (12.8%)		16 (27.1%)		
Homelessness During Past Yr				χ ² (1, N=55) = 1.10	.29
yes	8 (26.7%)		10 (40.0%)		
no	22 (73.3%)		15 (60.0%)		

Variable	IPS	Control	Statistic	p
Clinical Characteristics				
Primary Diagnosis				
psychotic disorder	31 (66.0%)	39 (66.1%)	$\chi^2 (2, N=106) = .69$	.71
mood disorder	15 (31.9%)	17 (28.8%)		
other	1 (2.1%)	3 (5.1%)		
Substance Use Disorder				
alcohol use disorder only	14 (30.4%)	16 (27.1%)	$\chi^2 (2, N=105) = 1.09$	.58
drug use disorder only	20 (43.5%)	22 (37.3%)		
alcohol & drug disorders	12 (26.1%)	21 (35.6%)		
	Mean (SD)	Mean (SD)		
AUS Rating [*]	3.37 (0.57)	3.08 (0.36)	t (62) = 2.49	<.05
DUS Rating ^{**}	3.50 (0.67)	3.49 (0.63)	t (73) = .08	.94
Days Hospitalized During Past Yr Symptoms				
BPRS Thought Disturbance	26.06 (46.71)	27.72 (55.40)	t (103) = -.16	.87
BPRS Anergia	1.98 (0.93)	2.11 (1.00)	t (104) = -.69	.49
BPRS Disorganization	1.93 (0.95)	1.81 (0.90)	t (104) = .65	.52
BPRS Depression	1.64 (0.67)	1.65 (0.68)	t (104) = -.11	.92
BPRS total	2.60 (1.60)	3.00 (1.78)	t (104) = -1.22	.23
	34.79 (8.99)	35.47 (10.31)	t (104) = -.36	.72

^{*} Among the sample with alcohol use disorder.

^{**} Among the sample with drug use disorder.

Table 2

Comparisons of competitive work outcomes at 18 months among clients with dual disorders

ALL SAMPLE					
	IPS (N = 47)	Control (N = 59)	Statistic**	p	d
Job acquisition	28 (59.6%)	14 (23.7%)	$\chi^2(1, N=106) = 14.05$	<.001	0.75
Total weeks worked	16.81 (25.17)	5.12 (13.42)	$t(104) = 3.78$	<.001	0.77
Job tenure (wks)	12.75 (19.82)	4.51 (12.65)	$t(104) = 3.71$	<.001	0.73
Total hours worked	365.56 (607.20)	83.62 (218.82)	$t(104) = 3.86$	<.001	0.77
Ever working 20 hrs/wk	22 (46.8%)	6 (10.2%)	$\chi^2(1, N=106) = 18.07$	<.001	0.87
*Total wage (adjusted)	\$3,050.35 (\$5,745.60)	\$807.04 (\$2,207.48)	$t(104) = 3.83$	<.001	0.77
WORKING SAMPLE					
	IPS (N = 28)	Control (N = 14)	Statistic**	p	d
Total weeks worked	28.22 (27.31)	21.57 (20.54)	$t(40) = 0.85$	0.40	0.27
Job tenure (wks)	21.40 (21.85)	18.99 (20.45)	$t(40) = 0.69$	0.49	0.23
Total hours worked	613.62 (685.78)	352.41 (334.09)	$t(40) = 0.65$	0.52	0.22
Ever working 20 hrs/wk	22 (78.6%)	6 (42.9%)	$\chi^2(1, N=42) = 5.36$	<.05	0.76
*Total wage (adjusted)	\$5,120.23 (\$6,726.94)	\$3,401.10 (\$3,498.52)	$t(40) = 0.31$	0.76	0.10
Days to first job	132.50 (139.84)	252.36 (147.66)	$t(40) = -3.43$	<.01	-1.00

* Total wage was adjusted into October 2010 dollars using the CPI-U.

** T-tests are based on log-transformed outcome variables.