EXECUTIVE SUMMARY OF FINDINGS FROM THE EMPLOYMENT INTERVENTION DEMONSTRATION PROGRAM

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EXECUTIVE SUMMARY OF FINDINGS FROM THE EMPLOYMENT INTERVENTION DEMONSTRATION PROGRAM Study Overview

Over the past several decades, research from a variety of fields has presented powerful evidence of the importance of employment to people with psychiatric disabilities. Many people with severe and persistent mental illness not only want to work, but they can also successfully participate in the labor market in a variety of competitive jobs. Researchers also have explored the benefits of work to individuals with mental illness in terms of alleviation of poverty, therapeutic gain, and improvement in quality of life. Society also benefits through reduction in the use of disability entitlements and the overalls cost of care.

The Employment Intervention Demonstration Program (EIDP) was designed to generate knowledge about effective approaches for enhancing employment among adults with severe mental illnesses. Eight sites and a Coordinating Center (CC) were funded by the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration, to conduct this multi-site evaluation of innovative employment intervention programs for adults with psychiatric disabilities. The CC is operated by the Center on Mental Health Services Research and Policy at the University of Illinois at Chicago (UIC), and what follows is a summary of the EIDP's major findings.

Several different innovative programs were tested by the multi-site study, including Individual Placement & Support, Program of Assertive Community Treatment, I.C.C.D. Clubhouse, Enhanced Supported Employment, and an Employer Consortium. Over 1600 participants were randomly assigned to experimental versus control study conditions at the eight EIDP study sites, and followed for at least two years. Roughly half were male and half female, half were members of minority racial and ethnic groups and half were Caucasian. Participants averaged 38 years of age, most (72%) were receiving some form of disability income support from the Social Security Administration (SSA), one-third had not completed high school, and a third had not held paid employment in the five years prior to the study. Half of participants had a schizophrenia spectrum diagnosis while another 40% were diagnosed with major depression or bipolar disorder. Over half had a secondary diagnosis of substance abuse. Vocational outcomes measured included achievement of competitive employment, earnings, employment status, and number of hours worked, among others.

Major Findings

- The experimental programs of supported employment were significantly more effective than services as usual or comparison conditions in achieving positive vocational outcomes.
- People with severe mental illness who received well-integrated and coordinated vocational and clinical services had significantly better employment outcomes than those who received non-integrated services.
- Integrated employment services resulted in positive employment outcomes regardless of consumers' personal characteristics, diagnoses, work histories, receipt of SSA disability income, and functioning levels.
- Average direct costs of vocational services per client per year in the models tested ranged from \$483 to \$2,069, and were related more to the nature of the site at which the program was implemented than to the

particular program model tested. Of the models tested at more than one site, no one model had the lowest average cost per consumer.

- The more vocational services people with psychiatric disabilities received, the better the employment outcomes they achieved, especially among those receiving job development services.
- Intrapersonal characteristics such as type and intensity of mental disorders and psychiatric symptoms were shown to influence employment outcomes within vocational programs.
- Local unemployment rates were significantly associated with consumers' vocational outcomes such that, regardless of study condition or personal characteristics, those residing in areas with high unemployment had significantly worse outcomes.
- Sixty percent of the total population had a co-occurring disability or medical condition and these individuals had lower earnings and were less likely to work competitively.
- Among participants receiving employment services whose work histories qualified them for Social Security Disability Insurance, while 69% worked, their jobs tended to be low-paying, part-time, and without benefits such as paid vacation, sick leave, or health insurance.

General Conclusions

Mental health consumers demonstrated a noteworthy productivity potential by earning millions of dollars and working hundreds of thousands of hours. Over time, greater proportions of people worked, their job tenure increased, and the time between jobs grew shorter, indicating that effective programs must be prepared to offer ongoing support and services. In addition, people should receive more vocational services to complement the high levels of clinical services offered by most programs. Jobs should be of higher quality and better paying, in order to move consumers out of the category of the "working poor" into economic self-sufficiency. Vocational rehabilitation for those with psychiatric disabilities does not occur in a vacuum, but instead within the context of the larger labor market and other societal and individual influences.

Results of a Multi-Site Randomized Clinical Trial of Supported Employment

Interventions for Individuals with Severe Mental Illness¹

Major Findings

- Supported employment models tailored by integrating clinical and vocational services were more effective than services as usual or comparison conditions.
- Experimental condition subjects were more likely to be competitively employed (55% of experimental vs. 34% of control participants), work 40 or more hours per month (51% vs. 39%), and have higher earnings (\$122/month vs. \$99/month) despite controlling for demographic, clinical, and work history confounds.
- The advantage of experimental over control group participants increased over the 24-month study period.

These findings support the importance of providing on-going services with no time limits as a best practice in vocational rehabilitation for people with psychiatric disabilities. Participants' employment success increased over time, making it important that programs offered ongoing support and services. One of these was supported education, enabling consumers to enhance their academic achievement and obtain higher paying jobs. Although the experimental program models varied, all shared common characteristics including a focus on integration of clinical and employment services, availability of on-going job support, development of jobs consonant with individual's career preferences, and a focus on rapid job placement into permanent, socially integrated, competitive employment. The EIDP results show that these programs can work anywhere, for a wide variety of consumers.

Integration of Clinical and Vocational Services for People with Mental Illness: A Multi-Site Randomized Clinical Trial Study of Supported Employment² *Major Findings*

- Supported employment models with high levels of integration of clinical and vocational services were more effective than models with low levels of service integration.
- Subjects served by models that integrated clinical and vocational services were over twice as likely to be competitively employed, and almost one-and-one-half times as likely to work 40 or more hours per month, despite controlling for demographic, clinical, and work history confounds. The advantage of experimental over control group participants increased over the 24-month study period.
- Higher cumulative amounts of vocational services were associated with better employment outcomes, whereas higher cumulative amounts of clinical services were associated with poorer outcomes.

In this study, services integration was defined as vocational and mental health services (such as medication management and individual therapy) being provided by the same agency, at the same location, with all the information about the client combined in a single case record, and with regularly and frequently scheduled staff meetings (usually daily or at least 3 times per week) to coordinate treatment planning and service delivery while enhancing staff communication and coordination. The study's results confirm the importance of provider communication and coordination of mental health and rehabilitation services in working toward vocational goals.

Effects of Job Development and Job Support on Competitive Employment of Persons with Severe Mental Illness³

Major Findings

- Individuals who received job development services were significantly more likely to obtain competitive employment.
- Recipients of job development were almost 5 times as likely to obtain competitive employment as individuals who did not receive job development, controlling for work history and level of service integration (i.e. clinical and vocational services)
- Individuals served in programs where clinical and vocational services were not integrated received significantly less job development and, without job development, participants in these kinds of programs were extremely unlikely to obtain competitive employment.
- Individuals with no prior work experience had virtually no chance of acquiring a competitive job without job development.
- Job support was associated with significantly longer job tenure in an individual's first competitive job but not with total number of hours worked.

The findings of this study suggest that job development is a very effective service for achieving competitive employment. This was especially true for individuals who had little prior work experience and those were served in programs where clinical and vocational services were not integrated. Thus, programming focused on job acquisition should emphasize the delivery of job development services. In addition, the relationship between receiving job support and longer tenure at one's first competitive job suggests that ongoing support with no time limits may be related to better vocational outcomes.

Effects of Unemployment Rate on Vocational Outcomes in a Randomized Trial of

Supported Employment for Individuals with Psychiatric Disability⁴

Major findings

- The local unemployment rate had a significant impact on the employment outcomes of individuals with psychiatric disabilities receiving supported employment services, even controlling for study condition and participant characteristics (demographic features, clinical factors, site location).
- Analysis of study condition by high versus low unemployment rate indicated that those in the experimental condition at sites with low unemployment rates had the best outcomes.
- Even in areas with high local unemployment, those who received experimental SE had outcomes superior to those in the control condition.
- Experimental condition participation had a significant and positive effect on employment outcomes, even controlling for the effects of unemployment rate.

People with psychiatric disabilities displayed a noteworthy productivity in the EIDP, earning over 3.5 million dollars and working more than 850,000 hours during their twoyear followup period. The awareness that workers with this disability are influenced by local labor market conditions should influence public policies designed to assist them with their return to work. The provision of vocational rehabilitation services appears to be especially critical during times of economic downturn, when disabled workers' labor force participation is threatened. Those re-entering the labor force in geographic areas of the country with high unemployment rates are particularly vulnerable.

Clinical Predictors of Employment Among People with Severe Mental Illness:

Findings from a Multi-Site Randomized Clinical Trial⁵

Major findings

- EIDP participants with diagnoses other than schizophrenia, and no co-morbid physical health conditions had better vocational outcomes.
- EIDP participants with fewer recent psychiatric hospitalizations and lower levels of psychiatric symptoms were more likely to work 40 or more hours in a month and to be competitively employed.
- EIDP participants who rated themselves as higher functioning had better vocational outcomes.

This study points to some program participants who need additional support or tailoring of services in order to address their particular patterns of clinical impairment. Many need help with health and medical problems, special support for dealing with troublesome symptoms, or help finding jobs at which persistent symptoms are less conspicuous. In addition, special care should be taken in developing appropriate vocational options and employment opportunities to address the unique needs of those with diagnoses of schizophrenia and other schizophrenia-spectrum disorders. However, it is essential to note that regardless of particular clinical or personal characteristics, mental health consumers afforded the opportunity for on-going participation in "best-practice" supported employment programs can be successful in fulfilling their goals related to work.

Demographic Characteristics of People with Severe Mental Illness as Predictors of Employment in a Multi-site Study⁶

Major findings

- The experimental supported employment interventions were effective in improving employment outcomes, regardless of demographic characteristics.
- People who were younger, those with better work histories, and those with at least a high school education were more likely to be employed in competitive jobs and to work more hours per month, even controlling for the effects of study condition, study site, and other demographic characteristics.
- Differences in race and gender effects depended on the outcome studied. African Americans were less likely to work in competitive employment, but worked more hours per month. Men and women were equally likely to engage in competitive employment, but males worked more hours per month.

The fact that demographic factors were related to employment outcomes is not surprising, since this mirrors employment patterns in the general U.S. labor force. Study results point to factors that could be incorporated into the planning and delivery of services. Individuals with lower levels of formal education may benefit from remedial learning, especially improvement of functional literacy and math skills. Those with poorer work histories may require additional support and training, especially early in their job tenure. However, demographic factors should also be considered for what they are: contextual factors that reflect labor market and social context realities, such as bias, stigma, and social and economic trends. Developing a Multisite Cost Analysis of Supported Employment Interventions and Traditional Services for Individuals with Severe Mental Illnesses: Methodological

Issues and Cost Results⁷

Study Findings

- Average total costs per client ranged from \$2,000 to \$6,000, while average direct vocational service costs range from under \$500 to about \$2,000 per client per year.
- By far, direct costs accounted for the bulk of total and per client costs. Among direct costs, personnel costs are significantly larger than other (non-personnel) costs.
- Average per client per year vocational costs were related more to the nature of the site at which the program was implemented than to the particular program model tested, although cross-site comparisons must be made with great caution.
- Of the vocational models tested at more than one site, no one model had the lowest average cost per consumer per year.

The primary focus of this study was on identifying the direct costs of employment interventions. As a secondary goal, other costs were estimated, including direct non-vocational costs as well as indirect costs associated with program delivery.

Consequently, the costs and analysis presented here are first and foremost of value to obtain estimates of the direct costs of providing vocational services to adults with severe mental illnesses. Cross-site differences may be informative in identifying broad patterns of cost variations associated with providing services to clients treated under programs with substantially different treatment strategies.

Effects of Supported Employment on Economic Self-Sufficiency for Beneficiaries of Social Security Disability Insurance⁸

Study Findings

- Restricting the sample to 450 participants receiving employment services whose work histories qualified them for Social Security Disability Insurance (SSDI), while 69% of SSDI beneficiaries worked, their jobs tended to be low-paying, parttime, and without benefits such as paid vacation, sick leave, or health insurance.
- During the 2-year study follow-up period, only 4 percent of SSDI beneficiaries had monthly incomes that would have earned enough for them to complete their trial work period and leave the SSDI rolls being financially self-sufficient.
- When earnings over two years were used to calculate provider payments under two reimbursement formulas used in the Ticket to Work program, results indicated that only a 26 percent reached earnings levels that would have triggered provider payments under the first reimbursement formula, and only 4 percent would have generated payments under the second formula.

While employment services are successful in helping SSDI beneficiaries return to work, the labor force participation of many workers is not at a level that would enable them to leave the public disability income rolls. This may be due, in part, to work disincentives in the policies of public disability income support programs, particularly those that eliminate cash payments for those who earn enough to complete their trial work periods. Current provider payment systems of the Ticket to Work program do not reflect the reality of rehabilitation for individuals with severe mental illness, and reforms should take into account outcomes of return-to-work services for this population.

Co-Occurring Disorders and Work Outcomes⁹

Study Findings

- Sixty percent of the total study population had a co-occurring disorder, and a quarter had two or more conditions; the most common were substance abuse/dependence, mental retardation, head injury, and visual impairment.
- Individuals with any co-morbidity had lower earnings and were less likely to work competitively; those with physical co-morbidities had lower earnings, worked fewer hours, and were less likely to work competitively, compared to those with other co-morbidities.
- Experimental condition was associated with more positive work outcomes, even controlling for co-occurring disorders.

These results underscore the importance of tailoring supported employment programs for those with co-occurring conditions. This need may be especially acute among those with physical impairments. Mental health rehabilitation programs are seldom equipped to serve individuals with physical impairments and often need to be adapted for those with physical disabilities. Supported employment specialists must be trained for and sensitive to return-to-work issues that arise for individuals with different types of co-morbidities, be they physical or cognitive disabilities, or chronic or acute medical conditions.

References

- Cook, J.A., Leff, H.S., Blyler, C.R., Gold, P.B., Goldberg, R. W., Mueser, K.T., Toprac, M.G., McFarlane, W.R., Shafer, M.S., Blankertz, L.E., Dudek, K., Razzano, L.A., Grey, D.D., & Burke-Miller, J. (2005). Results of a multisite randomized trial of supported employment interventions for individuals with severe mental illness." Archives of General Psychiatry, 62, 505-512.
- Cook, J.A., Lehman, A.F., Drake, R.E., McFarlane, W.R., Gold, P.B., Leff, H.S., Blyler, C.R., Toprac, M.G., Razzano, L.A., Burke-Miller, J.K., Blankertz, L.E., Shafer, M.S., Pickett-Schenk, S.A., & Grey, D. D. (2005). Integration of psychiatric and vocational services: A multi-site randomized, controlled trial of supported employment. American Journal of Psychiatry, 162(10), 1948-1956.
- Leff, H.S., Cook, J.A., Gold, P.B., Toprac, M., Blyler, C., Goldberg, R., McFarlane, W., Shafer, M., Allen, I.E., Camacho-Gonsalves, T., Raab, B.L. 2005). Effects of job development and job support on competitive employment of persons with severe mental illness. Psychiatric Services, 56(10), 1237-1244.
- Cook, J.A., Mulkern, G, Grey, D, Burke-Miller, J., Blyler, C., Razzano, L., Balser, R., Gold, P., Shafer, M., Dudek, K., Chow, C., Steigman, P. (2006). Effects of unemployment rate on vocational outcomes in a randomized trial of supported employment for individuals with severe mental illness, Journal of Vocational Rehabilitation, 22, 1–13.
- Razzano, L.A., Cook, J.A., Burke-Miller, J.K., Mueser, K.T., Pickett-Schenk,
 S.A., Grey, D.D., Goldberg, R.W., Blyler, C.R., Gold, P.B., Leff, H.S., Lehman,
 A.F., Shafer, M.S., Blankertz, L.E., McFarlane, W.R., Toprac, M.G., & Carey,

M.A. (2005). Clinical factors associated with employment among people with severe mental illness: Findings from the Employment Intervention Demonstration Program. Journal of Nervous and Mental Disease, 193, 705-713.

- Burke-Miller, J.K., Cook, J.A., Grey, D.G., Razzano, L.A., Blyler, C.R., Leff, H.S., Gold, P.B., Goldberg, R.W., Mueser, K.T., Cook, W.L., Toprac, M.G., Stewart, M., Blankertz, L., Dudek, K., Taylor, A.L., & Carey, M.A. (2006). Demographic characteristics and employment among people with severe mental illness. Community Mental Health Journal, 42(2), 143-159.
- Marcotte, D.E. & Wilcox-Gök, V. (2003). Developing a multisite cost analysis of supported employment interventions and traditional services for individuals with severe mental illnesses: Methodological issues and cost results. Baltimore, MD: University of Maryland.
- Cook, J.A., Grey, D.D., Burke-Miller, J.K., Leff, H.S., Blyler, C.R., Gold, P.B., Goldberg, R.W., Clark, R.E., Kaufmann, C.L., Razzano, L.A., & Pickett-Schenk, S.A. (2006). Implications of the Ticket to Work for people with psychiatric disabilities: A simulation of employment service provider payments. Psychiatric Services, 57, 465-471.
- 9. Cook, J.A., Razzano, L.A., Burke-Miller, J.K., Blyler, C.R., Leff, H.S., Mueser, K.T., Gold, P.B., Goldberg, R.W., Shafer, M.S., Onken, S.J., McFarlane, W.R., Donegan, K., Carey, M.A., Kaufmann, C. & Grey, D.D. (in press). Effects of co-occurring disorders on employment outcomes in a multi-site randomized study of supported employment for people with severe mental illness. Journal of Rehabilitation Research and Development.