

**TEST RE-TEST RELIABILITY OF AN EMPLOYMENT
OUTCOMES INSTRUMENT (EOI)**

by

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ABSTRACT

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Test Re-Test Reliability of An Employment Outcomes Instrument (EOI)

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Persons with disabilities are one of societies most disadvantaged groups. They experience unfair discrimination and prejudice and are subject to unemployment and poverty. Of working age persons with disabilities, only 27.8 percent are employed, (McNeil, 1993) and approximately 30 percent are living in poverty (Kaye, 1998). The goal of community rehabilitation programs (CRPs) is to provide services to assist individuals with disabilities obtain employment with good pay, benefits, and job satisfaction. While CRPs all work toward a common goal, each program may use different interventions and have varying rates of success in assisting individuals with disabilities to obtain gainful employment. The rates of success of persons served by CRPs are unknown due to a lack of standardized methodology for collecting and reporting these outcomes (McAlees, Menz, & Center Staff, 1998). Therefore, a need exists to develop a

standardized method of collecting and reporting employment outcomes of persons served by CRP's.

The purpose of this study was to conduct a preliminary analysis of data collected in previous research completed by the Research and Training Center (RTC), University of Wisconsin-Stout and to examine the reliability of items included in the experimental version of the Employment Outcomes Instrument (EOI).

The sample used in this study included 5 community-based rehabilitation programs that are certified by the Commission on the Accreditation of Rehabilitation Facilities (CARF) in vocational rehabilitation services leading to community-based employment. Subjects included 51 consumers who were chosen based on having participated in a rehabilitation program and securing community-based employment in the previous 3-6 month period. The EOI was developed by Thomas, Menz, and Radtke (1999) of the Research and Training Center at the University of Wisconsin-Stout. The instrument includes questions regarding employment planning and preparation, consumer goals prior to entry in the CRP, employment achieved, work related benefits, satisfaction with services, goals achieved, and benefits lost. The results of the study indicated that the majority of the questions (.70) asked on the EOI elicited consistent responses during the two interviews. Findings will be used to refine the instrument before using it in future outcome studies.

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CHAPTER I

INTRODUCTION

Overview

Work is an important part of life. "It is the central pillar that affects aspects of social and leisure, emotional, intellectual, and physical well being" (Walls & Fullmer, 1997, p. 19). Whether it is for personal development, inspiration and challenge, to earn an income, or to build a social network, individuals seek employment to fulfill a variety of needs.

The Rehabilitation Act Amendments of 1998 state that, "work is a valued activity... [that] fulfills the need of an individual to be productive, promotes independence, enhances self-esteem, and allows for participation in the mainstream life in the United States" (Title I, Section 100, [a]). Unfortunately, in terms of employment, "people with disabilities continue to be outside the mainstream of society" (McAlees, Menz, & Center Staff, 1998, p. 2). They experience unfair discrimination and prejudice, and are subject to unemployment and poverty.

Of working age persons with disabilities, only 27.8 percent are employed, compared to the 76.7 percent of persons without disabilities (McNeil, 1993). This low employment rate leaves 30 percent of persons with disabilities limited in their ability to work and living in poverty (Kaye, 1998). Such data underscore the need to address the continuing unemployment and economic status of persons with disabilities.

Section 2 of The Rehabilitation Act Amendments of 1998, specifies some of the realities for persons with disabilities as cited below:

Individuals with disabilities constitute one of the most disadvantaged groups in society; disability is a natural part of human experience and in no way diminishes the right of individuals to live independently, enjoy self-determination, make choices, contribute to society, pursue meaningful careers, and enjoy full inclusion and integration in the economic, political, social, cultural and educational mainstream of American society; increased employment of individuals can be achieved through the provision of individualized training, independent living services, educational services, and meaningful opportunities for employment in integrated work settings (Section 2 [a]).

The purpose of the Rehabilitation Act is to maximize employment and economic self-sufficiency of persons with disabilities. Community-based rehabilitation programs (CRPs) are one vehicle through which the Rehabilitation Act's goals of economic independence and employment for persons with disabilities can be carried out. The term "community rehabilitation program" is defined within the Act (Section 7 [5]) as

a program that provides directly or facilitates the provision of vocational rehabilitation services to individuals with disabilities, and that provides, singly or in combination, for an individual with a disability to enable the individual to maximize opportunities for employment, including career advancement.

Community rehabilitation programs provide a variety of services to persons with disabilities, such as supported employment, sheltered employment, job skills, work adjustment, vocational evaluation and assessment, and placement services (Botterbusch & Miller, 1999). Although CRPs vary in the specific services they provide, they all work toward a common goal of enhancing the independence and personal worth of persons

with disabilities through employment. Although CRPs work toward a common goal, each program may use different methods and have varying rates of success in assisting persons with disabilities to obtain gainful employment. The specific services CRPs provide and methods that work best are not well known. Literature in the field of vocational rehabilitation offer little information about the rates of success of CRP programs and the extent to which employment outcomes are achieved and sustained (McAlees, Menz, & Center Staff, 1998).

Employment outcome studies have been conducted by CRPs as a means of identifying their success in placing individuals and to substantiate the time and dollars invested into the program (Thomas, Menz, & Rosenthal, in press). However, the studies do not consistently include the same information or similar methods for gathering data such as source of information and time of follow up. A literature review indicates that outcome studies can be tremendously beneficial to the field of rehabilitation. Outcomes of CRPs can be used to compare effective programs, to identify specific disability characteristics (Anthony, 1994) and specific interventions (Buffington & Malec, 1997), which lead to successful entry into the workforce. They can be used to indicate combinations of interventions that were successful as well as the services timing or the time involved that may have contributed to successful employment outcomes (Cifu, Keyser-Marcus, Lopez, Wehman, Kreutzer, Englander, & High, 1997). Although outcome studies can be beneficial to the rehabilitation field, the inconsistency in the data makes it nearly impossible to make any legitimate comparison of vocational rehabilitation programs (Thomas, Menz, & Rosenthal, in press).

A need exists for a means of reporting outcomes in a standard replicable manner. Information that could be compiled into a database would enable professionals to draw conclusions about programs, services, and individual characteristics (Thomas & Menz, 1997). By reporting, sharing, and comparing outcomes, CRPs have a chance to compare data to select interventions, evaluate the employment and satisfaction of consumers, and predict the outcomes of specific interventions with individuals who have similar personality characteristics and/or disabilities. The development of a standardized instrument to measure employment outcomes and the success of CRPs in assisting consumers to achieve employment and economic self-sufficiency could make a major contribution to the field of rehabilitation (Thomas & Menz, 1997).

In a study conducted by Thomas, Menz, & Rosenthal (in press), opinions of consumers, funding agents, and CRP providers were surveyed to determine if a consensus could be reached to identify the most important employment outcome characteristics. A preliminary literature review was conducted to identify potential employment related domains and the content was subsequently validated by a panel of expert judges (see Thomas, Menz, & Rosenthal for details). Based on this review, a questionnaire was developed including content items relating to employment benefit conditions, informed consumer choice, rehabilitation partnerships, consumer satisfaction, and federal legislative requirements. The questionnaire was mailed to a random sample of subjects. The results of this study were used to define the important employment characteristics to examine in a standardized measure of employment outcomes and led to the development of the Employment Outcomes Instrument (EOI) by staff at the Research and Training Center at the University of Wisconsin-Stout.

The EOI will be used to "quantify important factors relevant to evaluating the nature and extent of employment outcomes from CRPs" (McAlees, Menz, & Center Staff, 1998). Standardization provided by the instrument will also help overcome problems of inconsistent reporting of employment outcomes.

The American Psychological Association (1985) requires test developers to be responsible for providing evidence regarding reliability and validity of tests or rating instruments. Testing the reliability of this instrument is an important first step in working towards the final product of a standardized instrument that can be used by CRPs and professionals concerned with employment outcomes.

Statement of the Problem

A review of the employment outcome literature by Thomas & Menz (1997) revealed that no standards for reporting employment outcomes were consistently applied in the reporting of employment achieved by persons served by CRPs. The authors posited that a standardized instrument from which to collect outcome data would enable professionals to evaluate the impact of vocational rehabilitation services on consumers. Preliminary research by Thomas, Menz, & Rosenthal (in press) suggests a consensus exists regarding important employment outcome characteristics among primary shareholders who have a vested interest in the employment outcomes of persons served by community rehabilitation programs. Their research suggested that an instrument could be developed to report employment outcomes if it was found to be a reliable and valid measure to quantify what the consensus study found to be the most important variables to all constituents. Based on the preceding research, the Employment Outcomes Instrument

(EOI) was developed by researchers at the Research and Training Center, University of Wisconsin-Stout.

The research presented in this manuscript is part of a larger RTC study examining reliability characteristics of an experimental data collection instrument, the EOI. The purpose of this study was to conduct a preliminary analysis of data collected by RTC staff during the pilot study with the EOI. Based on initial analysis of item responses and after eliminating redundant, poorly worded items or items that were poorly responded to, a secondary examination of the reliability of the EOI by the RTC is anticipated.

Responses from 51 subjects collected from two independent interviewers within a three-week time span constitute the bulk of the database reported in this manuscript. Items that request opinions about services received from CRPs, quality of life measures, satisfaction with employment, and resulting wage benefits were examined for outcome information and for the consistency of responses. Questions with an agreement of .70 or greater were targeted for identification. This percentage was determined by the investigators of the validation study (Thomas, Menz & Rosenthal, in press) that preceded the development of the EOI. The 70 percent agreement was selected in order to assure a minimal level of reliability. Items with less than .70 agreement are anticipated to be modified or dropped from the instrument. This paper will therefore present data on actual outcomes from a sample of CRPs and offer suggestions as to which items appear to be most suitable for use in future research studies.

Research Objectives

The following research objectives were pursued in this study:

1. Identify the employment outcomes of subjects who have received services from a community rehabilitation program.
2. Determine the percent of agreement obtained when comparing responses given at two interviews, conducted by separate interviewers, within a three-week time span.

Definition of Terms

The following terms are defined as they were used in this study.

Reliability: Refers to the degree to which a test or a data collection instrument is dependable, repeatable, and consistently measures whatever it measures (Ary, Jacobs, & Razavieh, 1972).

Test re-test reliability: The degree to which the scores of an instrument are consistent over time, used to check the reliability or stability of an instrument by administering the same test twice (Ary, Jacobs, & Razavieh, 1972).

Community-Based Rehabilitation Program (CRP): A CRP is a program that provides directly or facilitates the provision of vocational rehabilitation services to individuals with disabilities, to enable the individual to maximize opportunities for employment (Rehabilitation Act Amendments of 1998). The terms community rehabilitation program, vocational rehabilitation program, and rehabilitation program are used interchangeably throughout this manuscript.

CHAPTER 2

REVIEW OF LITERATURE

Overview

Interest in employment outcomes has fostered studies seeking data from which to measure the success of community rehabilitation programs and the services they provide. A literature review of published employment outcomes studies indicated that there is no reliable standardized instrument from which to base studies of employment outcomes. The literature also suggested that a standardized instrument would be beneficial to the field of vocational rehabilitation.

A standardized instrument should include the following characteristics: test objectivity (meaning that the individual's score is essentially the same regardless of who may be doing the scoring) and existence of validity and reliability data (Gay, 1996). Based on the previous findings, Thomas, Menz, & Radtke (1999) developed the Employment Outcomes Instrument (EOI) which will be studied within this research to examine stability of the scores or ratings over time.

This chapter will review (a) the definitions of reliability and validity and the relationship between them, (b) the importance of outcome reporting, (c) problems in defining a successful outcome, (d) issues in reporting outcomes measurements, (e) important characteristics to include in outcome studies, and (f) the importance of a reliable instrument to report outcomes.

Reliability and Validity

Reliability can be defined as the degree to which a test or a data collection instrument is dependable, repeatable, and consistently measures whatever it measures (Ary, Jacobs, & Razavieh, 1972). The more reliable a test or rating instrument, the more confidence we have that essentially the same scores would be obtained if repeated. Reliability is usually expressed as a coefficient, with a high coefficient indicating high reliability. A coefficient of 1.00 indicates perfect reliability and can be said to be free from errors of measurement (American Psychological Association, 1985). However, no rating scale or test is perfectly reliable as scores can be affected by errors of measurement resulting from a number of variables including such factors as ambiguity of the test, human factors (fatigue, lack of attention and motivation), or conditions of administration (Gay, 1996).

Validity is the degree to which an instrument measures what it was supposed to measure. It is important to note that a test or rating instrument is only valid for a particular purpose and a particular group. Rather than stating that an instrument is valid or invalid, one should report in terms of valid for whom or for what purpose (Gay, 1996). *Content Validity* is the degree to which an instrument measures a certain content area and requires both item validity and sampling validity (Gay, 1996). *Item validity* indicates whether the instrument represents measurement in the accurate content area and *sampling validity* is concerned with how well the instrument samples the total content area.

When an instrument is said to be valid, one can also generalize that it is reliable, and that it consistently measures what it is measuring (Crowl, 1993). If an instrument is

reliable, this does not tell us that it is valid. In other words, it is possible to obtain consistent measurements without measuring what it is supposed to be measuring. A valid instrument can be assumed to be a reliable one, whereas a reliable test may or may not be valid.

The Importance of Outcomes Reporting

The primary goal of most community-based rehabilitation programs is to empower persons with disabilities to obtain and maintain employment within the labor force (Walls & Fullmer, 1997). Vocational rehabilitation programs are designed to provide employment services to assist consumers to identify and meet vocational goals. Services such as job seeking skills, vocational counseling, skills training, and placement are some of the strategies directed to the goal of vocational success (Walls & Fullmer, 1997).

Consumers and purchasers of services have the right to expect a high quality service (CARF, 1998) that will amount to the attainment of their vocational goals. Therefore, the Commission on the Accreditation of Rehabilitation Facilities (CARF) requires organizations seeking accreditation to demonstrate the use of an outcomes measurement system to promote the improvement of services for consumers and stakeholders involved with the organization. Outcome characteristics such as the results of services, costs, timeliness, cost effectiveness, and consumer satisfaction are important to identify (CARF, 1998) in order to interpret the success of the outcomes achieved. Additional variables have been identified by previous studies, but there is wide variability in the nature of the data reported which will be further described in this section.

Outcomes research is essential in understanding the effectiveness of specific interventions and identifying the factors that lead to specific consumer outcomes (Johnston & Granger, 1994). Studies are used by rehabilitation programs to identify ways to improve vocational outcomes for persons with disabilities (Honey, 2000), and meet the changing needs of the persons served (CARF, 1998). Outcomes reporting can describe specific employment outcomes attained by a consumer, compare program strategies, identify specific interventions (Cifu et al., 1997), and determine the support needed to assist individuals to sustain employment (McHugo, Drake, & Becker, 1998).

Unfortunately, a review of the employment outcomes literature indicates that researchers reporting outcomes tend to use different success criteria, which makes it difficult to compare outcomes data between programs (Thomas & Menz, 1997). Because of the lack of a standardized measure to report outcomes, additional outcomes reporting without a standard of comparison will not add to our knowledge of the nature and success of rehabilitation programs and the consumers they serve (McAlees, Menz, & Center Staff, 1998).

Problems in Defining Successful Outcomes

The lack of an operational definition of successful employment is a prominent issue that needs to be considered when attempting to identify successful outcomes (Cifu et al., 1997). The term "successful outcome" has been described and measured in a variety of ways among rehabilitation programs and within the existing outcomes literature.

Typically, competitive employment is seen as the desired outcome of a rehabilitation program, and is used as the traditional measure of success (Walls &

Fullmer, 1997). Becker (1998), for example, indicated that the U.S. Rehabilitation Services Administration defines a successful placement as employment in a competitive, integrated environment. While employment plays a large role in an individual's identity and contributes to quality of life, describing competitive employment or work as the sole measure of outcome can be an inaccurate measurement of a successful outcome (Kay, 1993). There are other forms of social productivity that should be considered legitimate outcome, such as working in a non-competitive or protected setting, participating in regular volunteer activities, involvement in learning activities, and continued education (Kay, 1993).

Even when competitive employment is achieved, the associated benefits and quality of the position may not meet the individual's needs (Bluestone, 1989). Consumers desire characteristics such as a benefits package, opportunities for job advancement, physical and emotional safety, respect, and a sense of belonging from the employment they obtain (Becker, 1998). Because not all jobs meet the needs of a consumer, obtaining employment cannot be the sole definition of success if the spirit of the Rehabilitation Act is to be upheld.

Outcomes literature suggests that professionals agree success should not be based solely on the terms "employed" versus "unemployed" (Lam & Priddy, 1991). Employment varies in its regularity, in the amount of support needed to sustain it, and in the level of the position (Kay, 1993). It is important to obtain details about the specifics of employment such as whether the job is volunteer work, sheltered or supported employment, or part or full-time competitive employment (Lam & Priddy, 1991).

Protocols must be established in outcomes reporting in order to identify the specific interventions and the specific measures of vocational successes that are being used by rehabilitation programs. When we provide more specificity about the interventions used and the outcomes measured, we can attempt to use the information to replicate successes (Cifu et al., 1997).

Issues in Reporting Outcome Measurements

Researchers and CRPs not only have the challenge of defining successful outcomes, but they must also identify items included in an outcomes study that measure program success. A common theme throughout many of the vocational rehabilitation research efforts has been the tendency to rely on participant wages as a measurement of program success (Dean, 1991). Some studies have focused on pre-injury and post-injury incomes to measure success (Lam & Priddy, 1991). However, when focusing on the individual's earnings as an outcome measure, we are not considering the fact that vocational rehabilitation participants may have different goals and may not choose a position that will maximize potential earnings (Gibbs, 1991). Consumers may be interested in non-wage benefits such as a better work environment or more job security, which makes it unfair to use models that base success on participant earnings or wages.

CRPs often measure success by the number of people that are employed upon termination of services. However, this does not take into account the number of individuals who lose or quit their jobs after initial employment. Too much emphasis is often placed on employment status when an individual leaves a rehabilitation program (Dean, 1991). This does not indicate true vocational success as many individuals can

obtain employment, but have difficulty with maintaining their position on a consistent basis (Cifu et al., 1997).

A literature review failed to identify a standard time frame for reporting employment outcomes, which may be especially important with certain disability groups. After 60 days of successful employment, an individual's case is typically closed and they are considered successfully rehabilitated. However, vocational rehabilitation programs typically do not follow a participant for more than 60 days (Gibbs, 1991), therefore, consumers who are more likely to have trouble sustaining employment longer than 90 days, such as persons with a brain injury and individuals with persistent mental illness, are not sufficiently represented in outcome reports (Buffington & Malec, 1997.)

Longitudinal studies of predictors of outcomes are invaluable to rehabilitation research (Johnston & Granger, 1994). This information can be used by vocational rehabilitation programs to plan for success and to accommodate the needs of persons served. Currently, there is not enough emphasis on conducting longitudinal studies to determine long-term success of the participants (Dean, 1991). Many outcome studies lack this information, and therefore the impact a particular program had on an individual's employment status is often based solely on the employment obtained and their status at the time that their case was closed.

Important Characteristics to Include in Outcome Studies

There are several characteristics lacking in the past outcome studies. A review of the literature suggested characteristics they feel are important to include in future studies. Anthony (1994), for example, stresses the importance of understanding personal characteristics that contribute to a successful vocational outcome. He argues that when

we understand personal characteristics, we may be aware of potential difficulties and strategies needed to assist people with differing needs. Mullins and Rossler (1998) identify a need to study different rehabilitation counseling tasks that contribute to achieving employment outcomes, as other programs might duplicate counseling techniques that are determined to work well with a specific population. Mank, Cioffi, and Yovanoff (1997) acknowledge the need to examine the nature and amount of supports received on the job, and Dean (1991) claims that a longitudinal earnings profile of program participants would provide a significant measurement to use in the evaluation of vocational rehabilitation programs. Also worthy of examination are characteristics of personal empowerment that individuals seek from employment, such as the level of inclusion an employee feels within the workplace culture and the level of workplace supports they receive (Butterworth, Whitney-Thomas, & Shaw, 1997).

Cifu et al., (1997) identified the need for a measurement system to determine the specific percentage of months an individual worked for more than half-time. This, and additional measures such as an increase of the percentage of time worked on an annual basis (Dean, 1991), decreased periods of unemployment (Gibbs, 1991), and the ability to secure and maintain a position on a constant basis (Cifu et al., 1997), provide an ongoing picture of an individual's employment status. A method used to determine an individual's long-term employment status is important, because evaluation based solely on initial employment may not be a true reflection of program success. True measurement of success should consist of sustained employment as well as initial employment achieved by program participants.

Consumer satisfaction needs evaluating in future outcome studies. Measures of consumer satisfaction should be considered the most important determinant of program worth (Crews & Long, 1997). Subjective evaluation of a program can determine if needs and expectations were met, services were worth the individual's time and effort, and if the individual was ultimately satisfied with the services provided (La Grow, 2000). Along with consumer satisfaction, determining if an individual has achieved goals they set upon program enrollment is also an important measurement of outcomes (La Grow, 2000).

Importance of a Reliable Instrument to Report Outcomes

Outcomes literature indicates there is no clear consensus among rehabilitation professionals on a standard definition of successful outcome. Nor is there a standardized instrument used to collect employment outcomes data. Many outcome studies have been conducted, however the discrepancy in the success criteria and data being reported makes it difficult for professionals to compare interventions. Therefore, the need of a standardized instrument for gathering employment outcomes data is apparent. Future outcome studies will not be relevant until a valid and reliable instrument is developed to allow for consistent comparison of employment outcomes, and to increase our knowledge of the nature of success of the outcomes achieved (McAlees, Menz, & Center Staff, 1998).

CHAPTER 3

METHODOLOGY

This research adopted the methodology developed by the Research and Training Center (RTC) at the University of Wisconsin-Stout (McAlees, Menz, & Center Staff, 1998). The purpose of this study was to conduct a preliminary analysis of questions included on the Employment Outcomes Instrument (EOI), developed by researchers at the RTC. The stability (reliability) of each question will be determined and used to refine the instrument. Upon completion of this study, RTC staff will conduct further studies of reliability and validity of the EOI as modified using input from this research. This chapter reports the methodology used to examine both the results of a structured interview process as well as the stability and reliability of items included in the EOI.

Sample Selection and Research Subjects

The sample used in this study were selected and prepared for participation by RTC staff and included community-based rehabilitation programs that are CARF certified in vocational rehabilitation services leading to community-based employment. Five sites were selected from an original pool of 42 sites randomly selected for a previous consensus study conducted by Thomas, Menz, & Rosenthal (in press). The five sites were similar in the services offered and the population served.

The subjects of this study included 51 consumers who were chosen based on having participated in a rehabilitation program and securing community-based employment in the previous 3-6 month period. CRP staff selected 10-12 potential

subjects representative of persons who typically received employment services, most of whom participated in two consecutive interviews.

Instrumentation

The experimental version of the Employment Outcomes Instrument was designed from prior research (Thomas, Menz, & Rosenthal, in press) to determine important variables to include in an instrument appropriate for assessing outcomes from CRP services. In their study, Thomas, Menz, & Rosenthal (in press) surveyed opinions of consumers, funding agents, and CRP staff to determine if a consensus could be reached to identify the most important employment outcome characteristics. The results of this study were used to identify important questions to include in a standardized measure of employment outcomes and services received. Thomas, Menz, & Radtke of the Research and Training Center at the University of Wisconsin-Stout developed the experimental version of the Employment Outcomes Instrument (EOI) used to collect the data presented in this paper. The content of the EOI includes questions regarding employment planning and preparation, consumer goals prior to entry in the CRP, employment achieved, work related benefits, satisfaction with services, goals achieved, and benefits lost.

Preliminary Steps

Prior to developing the EOI, a Constituency Advisory Committee (CAC) was formed by RTC staff to provide input and content validation of the EOI (see Thomas, Menz, & Rosenthal, in press for details). Changes and redesign continued until agreement was reached (average of 70 percent) across the final subscales. Researchers then trialed the instrument at the Career Development Center, a CRP in Eau Claire, Wisconsin, to detect instructional problems, to clarify content, and to obtain initial estimates of

reliability. Based on the data obtained in the preliminary study, revisions were made before field-testing the instrument in this research study.

Interviewers

Interviewers including students and staff of the Research and Training Center collected the data presented in this paper. Four held Bachelor's Degrees and were graduate students and two were senior level (doctoral) researchers. Some interviewers participated in the preliminary study with subjects from the Career Development Center; RTC researchers trained others during mock interviews. This allowed the interviewers to become familiar with the instrument and to make necessary revisions.

Procedure

The procedures detailed below were conducted by RTC staff in order to collect the data presented in this paper. Full details are reported by Thomas, Menz, Radtke & Hisman (2000). Ten to twelve subjects, primarily the last ten consumers placed from each site, were selected by their case manager to participate in the interviews. Each case manager contacted the consumers to determine their willingness to participate. If they agreed to participate, a meeting was arranged for the first interview to take place at the CRP or another meeting place (such as a job center) familiar to the individual. Before conducting the interview, a consent form was read and signed with the interviewee. The interviews each took approximately 1 hour and were conducted by reading the questions to the participant and recording their answers on the interview form.

Stability and reliability estimates were determined by using the data previously obtained during administration of the EOI during two separate interviews conducted by independent interviewers. The two interviews were conducted two to four weeks apart.

Five dollars were given to the participant for their participation in the initial interview. Upon completion of the second interview, the individual received an additional fifteen dollars.

Prior to the interview, a Pre-Interview Worksheet was sent to each participant (see Thomas, Menz, Radtke, & Hisman, 2000). This form solicited information about the benefits received and wages earned and allowed the participant to gather some of the information requested during the EOI interview ahead of time. Preliminary studies illustrated that some information was difficult for the participants to recall offhand. The Pre-Interview Worksheet was provided prior to the interview to increase the ease of information collection, and to reduce the frustration that was observed when asking the participants to provide this information. Unfortunately, only a small number of participants completed this worksheet and brought it to the interview. Some subjects however, brought a pay stub to the interview to answer questions about wages earned and payroll deductions.

Data Analysis

The Statistical Package for the Social Sciences (SPSS) program at the Research and Training Center, University of Wisconsin-Stout, was used for data analysis. The data was entered into the SPSS program and initial frequencies were run to check for errors and extremes in the data. Upon data entry one interview was found to be incomplete and was left out of the study. The remaining interviews were used, despite missing information. This missing data would prove to be valuable in determining which items were too difficult for the subjects to answer.

A cross tabs program was run on 119 questions that asked for a yes, no, or I don't know, response. The results of the cross tabulation displayed the percentage of responses consistent from the first and second interview. This information was used to determine the stability and percentage of agreement obtained from items asked on the EOI.

CHAPTER IV

INTRODUCTION

This study was conducted as part of a Research and Training Center project to examine the stability and reliability of a preliminary (pilot) version of the Employment Outcomes Instrument (EOI). In order to identify questions from the EOI that had low agreement (<70%), data was obtained from two separate interviewers with approximately three weeks in between the interviews. This data will be used to revise the EOI.

RESULTS

The data presented herein was collected under a Research and Training Center (RTC) study that solicited opinions from persons served at CRPs regarding their satisfaction with services and employment outcomes. This chapter will present opinions and employment outcomes information collected from the first interview conducted with subjects. A description of the consistent responses obtained from both interviews will follow to identify the percent of agreement obtained for questions asked on the EOI.

Demographic Characteristics of Participating Subjects

Consumer demographic information was collected for all 51 subjects. This information was previously collected by RTC staff and made available for this study. Consumer demographic information is reported in Table 1, which was adapted from a research project report (Thomas, Menz, Radtke, Hisman, & Schroeder, 2000). The majority of subjects were persons with mental retardation (28) or mental illness (15). Additional disabilities such as learning disability, back injury, diabetes, and blindness are identified in Table 1. (See Table 1 for a list of the 11 disabilities reported for subjects.) The reader should note that the number of disabilities (n=69) is greater than the number

of subjects (n=51) because both primary and secondary disabilities were reported. Subject ages ranged from 21 to 57, with a mean age of 36. The median (34) and mode (30) were close to the mean, indicating a large number of participants were in their thirties. A slightly larger male population was included in this study, and the majority of the subjects were single. Most of the subjects (45) had completed 12 or more years of school, with 15 years being the most education reported. Ethnicity represented in this study was primarily white/non-Hispanic (86.2%), with seven individuals representing minority populations.

Table 1
Consumer Demographics

Demographics (n=51)		Disability Characteristics (n=51)	
Age	Mean = 36.4	Mental Retardation	28
	Median = 34	Psychiatric Disability	15
	Mode = 30	Learning Disability	5
Gender	Male = 30	Back Injury	3
	Female = 21	Respiratory	2
Ethnicity	White, non-Hispanic = 44	Vision/Blindness	2
	Black, non-Hispanic = 5	Diabetes	2
	Hispanic = 0	Arthritis	1
	Asian/Pacific Islander = 1	Brain Injury	1
	Native American, Eskimo, Aleunt = 1	Central Nervous System	1
Marital Status	Single = 44	Speech	1
	Married = 3	Substance Abuse	0
	Separated = 1	Other	8
	Divorced = 2		
	Widowed = 1		
Years of Education	4 years = 1		
	8 years = 2		
	10 years = 1		
	11 years = 1		
	12 years = 43		
	14 years = 1		
Hours Worked	15 years = 1		
	Mean = 19.48		
	Median = 20		
	Minimum = 3		
	Maximum = 40		

Employment Outcomes

The EOI was developed by researchers at the Research and Training Center, University of Wisconsin-Stout, to provide a standardized tool to collect and analyze employment outcomes data from persons with disabilities who had recently exited a community rehabilitation program (CRP) and had obtained employment. All data reported in this section was collected from the first of two interviews completed by RTC staff. Ten categories from the EOI will be reported in this section.

Employment

There was great variety in the employment subjects had obtained. Table 2 provides a description of employment data given during the first interview, and includes the number of jobs each subject reported, their job title, hourly wages, involvement in volunteer activities, and an indication of whether or not they were still working at the CRP. There were 23 subjects who reported working more than one job, 13 of whom worked at the CRP part-time. The most common job was a janitorial position, which was reported by 16 subjects. Some of these positions were located in a restaurant, and eight subjects reported performing food preparation duties, in addition to their janitorial work. Housekeeping in a hotel, library, or private home was common to six people, and four individuals worked an assembly or packaging position. See Table 2 for a complete listing of the employment that was reported.

In addition to employment, many individuals were involved in additional activities in which they participated on a regular basis. Subjects reported activities such as working with the Girl Scouts, volunteering at church or Sunday school, and volunteering with persons who are deaf and hard of hearing. Others reported volunteering

at a YMCA, at a school learning center, and one individual volunteered time to wrap presents at Christmas. Participants also reported involvement in classes such as ceramics, typing, computer skills training, and kickboxing.

Table 2
Employment, Wage, and Volunteer Activities Reported by Subject

Number of Jobs Reported	Also Worked at CRP	Job Title	Wage	Volunteer Activities
1		Janitor (Animal Hospital)	7.50	
1		Dietary Aide (Nursing Home)	7.98	Volunteer/Girl Scouts
1		Janitor (on crew)	7.25	
2	Y	Dietary Aide (Hospital) CRP	9.00	
2	Y	Luggage Return (on shuttle bus) Landlord		
2	Y	Janitor/Food Prep (McDonalds) CRP	6.50	Volunteer with Sunday school
1		Unknown	7.65	
2	Y	Bus Monitor CRP	7.15	Wrap presents at Christmas time
2	Y	Dietary Aide (Health Care Center) CRP	7.60	
2	Y	Laundry Sorter (Nursing Home) CRP	7.32	Church volunteer
2		Housekeeping (Library) Mail Sorting	4.25	
1		Plastic Grinder (Factory)	6.50	Taking typing course
2		Barn Assistant (Equestrian Center) Office Assistance (Travel Agency)	6.00 8.10	Volunteer at YMCA
1		Factory Worker (made levels)		
1		Assembly	10.30	
2		Trophy Assembler Grocery Bagger	5.50 6.10	
1		Shipping and Receiving (K-mart)	6.25	
2		Dishwasher (Restaurant) Dishwasher (Bakery)		
1		Secretarial Assistant	5.77	
1		Janitor (Jail)	8.32	
1		Auto Parts Delivery	5.15	
1		Janitor/Food Prep (Culvers restaurant)	5.95	
1		Janitor (School)		Kick boxing
3		Kitchen Helper (Cousins Subs) Babysitting (private home) Babysitting (private home)	6.43 2.00	

Number of Jobs Reported	Also Worked at CRP	Job Title	Wage	Volunteer Activities
2		Kitchen Worker (Hardees) Housekeeper	5.40	
1		Sales Associate (Goodwill)	6.19	
1	Y	Janitor (CRP)	5.50	
1		Leather Worker	6.00	
1		Inspector	5.15	
1		Maintenance (Wal-Mart)	6.30	
1		Packaging (Hallmark)	6.00	
1		Housekeeping (Hampton Inn)	5.25	
2		Janitor/food prep (Burger King)	5.50	
		Receptionist (Chiropractor)	5.50	
1		Order Assembler	6.00	
1		Housekeeper (Hampton Inn)	5.25	Volunteer at school learning center
2		Janitor (Mall)	5.50	
		Janitor (on crew)	5.15	
2		Groundskeeper (Walgreen)	5.25	Volunteer w/ persons hard of hearing
		Assembler		
1		Housekeeper (Ski Lodge)	5.25	
1		Packaging and Shipping (Hallmark)	6.00	
3		Janitor (Funeral Home)		Ceramics Class
		Janitor (Unspecified)		
		Janitor (Unspecified)		
1		Housekeeper (Hampton Inn)		
2	y	Janitor (Restaurant) CRP	6.00	Computer classes
3	y	Janitor (Bar) Janitor/Food Prep (Cousins Subs) CRP		Bowling/Basketball
2	y	Janitor/Food Prep (Arbys) CRP		Volunteer at Church
1		Dishwasher (Restaurant)	4.75	
2	y	Janitor/Food Prep (Taco Bell) CRP	6.25	
2	y	Dishwasher (Nursing Home) CRP		
1	y	CRP		
2	y	Janitor/ Food Prep (Burger King) CRP	5.65	
2	y	Janitor (Restaurant) CRP		

Housing

Of the 51 individuals who participated in this study, nearly 40 percent lived independently, one-third resided in a supported setting such as a group home, and the remaining lived with their family. Most participants (86.3%) reported being satisfied with their housing, while a small percent were not, or could not say.

Goals

Subjects were asked about employment goals and expectations they had prior to receiving employment services from the CRP. Specifically, they were asked if they had expectations for pay, benefits, and work hours, and whether or not their expectations had been met. These findings are reported in Table 3. Overall, more than one-half (58.8%) had expectations for work hours, less (47%) had expectations for pay, and even fewer participants (29.4%) had expectations for benefits. Of those who reported having expectations, a large percentage (83.3%) had achieved their pay expectations. Fewer had met their expectations for work hours per week (53.3%), and only six people (of the 15 with expectations) had met their expectations for benefits.

Table 3
Expectations for Pay, Benefits, and Work Hours

	Number with Expectations	% with Expectations	Number Achieved	% Achieved
Expectations for pay	24	47.1	20	83.3%
Expectations for benefits	15	29.4	6	40%
Expectations for work hours per week	30	58.8	16	53.3%

Choice, Service Satisfaction, and Rehabilitation Benefits Outcomes

A primary goal of the RTC's employment outcomes research efforts, in addition to developing a reliable instrument, was to obtain opinions from individuals regarding their satisfaction with CRP services and employment outcomes achieved. Information regarding their involvement in selecting services and job goals, along with their satisfaction of experiences and outcomes is reported in Table 4. The table displays the number of valid answers obtained ("n"), the percentage who answered yes ("yes"), the percentage who said no ("no"), and those who reported they did not know ("I don't know"). Items marked with an asterisk (*) identify questions with less than 70% rater agreement or stability when comparing data obtained from the first interviewer to data collected from the second interviewer. The information obtained on stability and reliability will be discussed further in this chapter.

Table 4
Choice, Service Satisfaction, and Rehabilitation Benefits Outcomes

ITEM	n	% Yes	% No	% I Don't Know
Was it clear to you how CRP would help you to get a job?	50	78.5	20.0	2.0
* When you first came to CRP, did you have a choice of working at the CRP or in the community?	47	57.4	37.3	2.0
Were your options for services explained to you in words you understood?	51	86.3	9.8	3.9
Did you understand how employment services could help you?	51	88.2	5.9	5.9
* Did you have a choice of coming or not coming to CRP for employment services?	51	70.6	25.5	3.9
Were you involved in developing your employment plan?	51	78.4	17.6	3.9
When you left CRP, did you have the chance to choose the job you wanted?	51	78.4	13.7	7.8
Were your work interests asked and talked about?	51	90.2	9.8	0
Were your work skills asked and talked about?	51	94.1	5.9	0
* Did you choose your own job goals?	51	68.6	21.6	9.8
* Were employment barriers talked about with you?	51	62.0	34.0	4.0
Were you able to try jobs to see how you liked them?	51	92.2	7.8	0
Did you learn how to look for the job you wanted?	51	80.4	11.8	7.8
Did you look for a job on your own?	51	33.3	64.7	2.0
Did you get the job that you wanted?	51	94.1	5.9	0
* Did you have more than one job to choose from when you took your job?	51	54.9	41.2	3.9
* Do you have a long-term job goal?	50	58.0	34.0	8.0
* Do you know what you have to do to achieve it?	36	69.4	11.1	19.4
* Do you feel you will reach your long-term job goal?	34	82.4	0	17.6
Do you have work skills that employers are looking for today?	51	96.1	3.9	0
Do you feel you have the skills needed to do the job you were hired for?	51	92.2	7.8	0
Could you find another job with the job skills you have?	51	90.2	5.9	3.9
Did the services you got from CRP help you get your job?	51	94.1	3.9	2.0
As a result of services, is it likely that you will be regularly employed?	51	96.0	2.0	2.0

ITEM	n	% Yes	% No	% I Don't Know
Do you feel that your job gives you a chance to live better?	51	94.0	2.0	4.0
Were the staff at CRP good at what they do?	51	96.0	2.0	2.0
Did you feel comfortable at CRP and were the services right for you?	51	90.2	9.8	0
Were you treated with respect?	51	98.0	2.0	0
Was the quality of the services good?	51	96.1	3.9	0
Were you satisfied with the services you received from CRP?	51	94.1	5.9	0
Was the time you spent at CRP time well spent?	51	94.1	3.9	2.0
Was the time from coming to CRP to your getting a job acceptable?	51	72.5	13.7	13.7
Will the training or work experience that you got at CRP help you to keep your job?	51	100.	0	0
* Is the job you got one that will help you to achieve your long-term goal?	36	80.6	8.3	11.1
Would you recommend this CRP to others?	50	88.0	10.0	2.0

** represents questions with less than 70% rater agreement*

Overall, more than 90 percent of the subjects believed their time at the CRP was time well spent, and were satisfied with the quality services they felt had helped them to get the job they wanted. They reported that CRP staff were good at what they do, thought they were treated with respect, and were comfortable at the CRP. Over 78 percent said they were involved in developing their employment plan, their work interests and skills had been discussed, and that they would recommend the CRP to others. All of the subjects believed the services they received would help them to keep their job. Greater than 90% of the subjects felt they had work skills that employers were looking for, believed they had the skills needed to do the job for which they were hired, and thought they could find another job with the skills that they had. They also believed that as a

result of the services they would be regularly employed, and that their job gave them a chance to live better.

Job Characteristics

Participants answered several questions about the job they had obtained as a result of CRP services (see Table 5). Over three-fourths had obtained part-time positions (less than 35 hours per week), worked a day shift, and believed the CRP had helped them find a job. The number of hours worked per week ranged from 3 to 40 hours with a mean of 19.48. Most of the individuals (96.1%) claimed they received on the job assistance when needed, and when asked to identify all sources that provided help if they had problems on the job, the majority of the subjects (80.4%) said they received assistance from their supervisor, nearly one half received help from a job coach, and about 14 percent said their co-workers or CRP supervisor helped them when needed.

Table 5
Job Characteristics

ITEM	% Yes	% No
How did you get this job?	-	-
Returned to job with prior employer	0	-
CRP/rehabilitation staff helped find job	86.3	-
Job found independently or through friends, family	9.8	-
Other	0	-
Is this job full-time?	19.6	-
Is this job part-time?	78.4	-
What is your usual work shift for this job?	-	-
Day	74.5	-
Afternoon-evening	15.7	-
Night	2.0	-
Rotating shifts	0	-
Other	5.9	-
Who helps you if you have problems on this job?	-	-
No one provides assistance to do job	2.0	96.1
Work supervisor	80.4	17.6
Co-workers	15.7	84.3
Supervisor from CRP	13.7	84.3
Job Coach	45.1	52.9
Family member	0	98.0
Other	0	98.0

Earnings, Benefits, and Other Income

Participants appeared to have difficulty reporting their monthly earnings, benefits, and other income. According to information collected during the first interview, the average income ranged from \$50 to \$2,400, with a mean of \$534.15. Less than half of the subjects (22) were able to report their earnings and of those who reported an amount, only four gave an answer consistent in both interviews. Approximately one-fourth of the subjects were able to report amounts received from Social Security and from Social Security Disability. Social Security Income ranged from \$71 to \$793 with a mean of \$281, and Social Security Disability Insurance ranged from \$300 to \$1,000 with a mean

of \$537.92. Table 6 lists the amounts of all monthly earnings, Social Security Income, and Social Security Disability Income, reported for both interviews. Amounts listed side by side illustrate responses that were consistent for both interviews.

Table 6
Earnings and Benefits Reported by Subject

All Monthly Earnings		Social Security Income		Social Security Disability Insurance	
Interview 1 n=22	Interview 2 n=17	Interview 1 n=12	Interview 2 n=14	Interview 1 n=14	Interview 2 n=9
50.00		71.00		300.00	
100.00	100.00		71.78	302.00	302.00
112.00	112.00		80.00	391.00	
123.50		83.00	83.00	400.00	
	127.00	85.00	85.00	417.00	417.00
193.00		85.00		425.00	
221.00			87.00		500.00
230.00	230.00	160.00		508.00	
	282.00	200.00	200.00	526.00	
	300.00	200.00		548.00	548.00
324.00		300.00	300.00		590.00
360.00		300.00	300.00	610.00	610.00
360.00			441.00	610.00	610.00
361.20		499.00		715.00	715.00
414.00			500.00	779.00	
430.00		596.00		1000.00	
450.00			600.00		1090.00
	463.00		700.00		
	520.00		781.00		
525.00		793.00	793.00		
578.00					
	600.00				
650.00	650.00				
	700.00				
	734.00				
800.00					
829.00					
	900.00				
1000.00					
	1100.00				
	1340.00				
1600.00					
2400.00					

Benefits and Entitlements Received

Medicare and Social Security Insurance were the most common benefits received by participants in this study (Table 7). More than one-half (52.8%) were receiving Medicare, and slightly less than that (47.1%) received SSI. Fewer individuals (35.3%) received Social Security Disability Insurance, and slightly over one-fourth were receiving Medicaid, Medical Assistance, housing assistance, and transportation assistance. Less than 10 percent of the subjects received general assistance, Temporary Assistance to Needy Families, Workers' Compensation, Veterans' Disability, private insurance settlement, alimony, or childcare support. This implies that for the most part, unless they were receiving Social Security or Social Security Disability Insurance, subjects were primarily depending on their earned income for support.

Table 7
Benefits and Entitlements Received

Benefit/Entitlement	n	% Yes	% No	% I Don't Know	% Cannot Say
Social Security Insurance	50	47.1	43.1	7.8	2.0
* Social Security Disability Insurance	48	35.3	52.9	5.9	5.9
General Assistance	49	5.9	76.5	13.7	3.9
Temporary Assistance to Needy Families	50	2.0	92.2	3.9	2.0
Workers Compensation	50	2.0	92.2	3.9	2.0
Veterans Disability Payments	50	0	94.1	3.9	2.0
Private Insurance Settlement	50	0	94.1	3.9	2.0
Alimony	50	0	96.1	2.0	2.0
Child Care Support	49	0	94.1	2.0	3.9
Food Stamps	48	7.8	84.3	2.1	0
* Medicare	49	52.8	33.3	9.8	3.9
* Medicaid	48	27.5	51.0	15.7	5.9
* Medical Assistance Card	50	23.5	66.7	5.9	2.0
Housing Assistance	49	23.5	66.7	5.9	3.9
Residential Service	49	11.9	76.5	7.8	3.9
Home Energy Assistance	50	5.9	84.3	7.8	2.0
Child Care	50	2.0	92.2	3.9	2.0
* Transportation	50	31.4	59.9	9.8	2.0

** represents questions with less than 70% rater agreement*

Payroll Deductions

It appeared to be difficult for participants to answer questions asked about payroll deductions, as an average of 11.7% did not know whether they had deductions taken from their paycheck. See Table 8 for details. Three-fourths of the subjects reported to have federal, state, and social security deductions taken from their check, close to one-half had Medicare deductions, and less than one-fourth claimed to have medical insurance deductions taken from their paycheck.

Table 8
Payroll Deductions

Deductions From Paycheck	n	% Yes	%No	% I Don't Know
* Federal income tax	49	79.6	8.2	12.2
* State (and/or local) income tax	49	79.6	10.2	10.2
* Social Security Tax (FICA)	49	79.6	6.1	14.3
* Medicare	49	46.9	34.7	18.4
Retirement Program	49	4.1	85.7	10.2
* Medical Insurance	49	12.2	79.6	8.2
Union Dues	49	6.1	87.8	6.1
Other	47	4.3	91.5	4.3

* *represents questions with less than 70% rater agreement*

Worker Perceptions About Their Job

Subjects were asked questions regarding perceptions of their job characteristics, work environment, and job satisfaction. These findings are listed in Table 9. Based on data obtained in the first interview, more than 90 percent of the subjects felt good about the work they did and claimed their work made them feel valued. They reported having jobs with year round work, reasonable work schedules, and acceptable travel time and distance to work. Over 80 percent thought their current job would help them to get a better job with better pay, felt the job was in keeping with their work interests and skills and with their long-term job goals. Twenty-two percent felt their job was too stressful and 30 percent stated they wished they had a better job.

Table 9
Characteristics of Job, Work Environment, and Job Satisfaction

Item	<u>n</u>	% Yes	% No	% I Don't Know
Does your job provide steady employment with regular wages?	51	88.2	9.8	2.0
Will this job help you get a better job with better pay?	51	84.3	9.8	5.9
Does this job provide about the same number of hours of paid work per pay period?	51	88.2	11.8	0
Is this a regular job with the employer?	51	82.4	3.9	13.7
Does this job provide year round work?	51	92.2	2.0	5.9
Is this job consistent with your interests and skills?	51	88.2	3.9	7.8
* Is this job in keeping with your long-term employment goals?	41	85.4	9.8	4.9
Do you have a reasonable work schedule?	51	90.2	9.8	0
Does your employer permit you time off if you need medical or rehabilitation services?	51	88.2	5.9	5.9
Is your travel time and distance to work acceptable?	51	94.1	3.9	2.0
Are your work assignments clearly explained?	51	96.1	3.9	0
Is your job too stressful?	50	22.0	78.0	0
Do you socialize with your co-workers at work?	50	82.0	16.0	2.0
Do you feel threatened or fearful while at work?	51	19.6	74.5	5.9
Does this job have safe work conditions?	51	84.3	13.7	2.0
Would you like to keep this job for a long time?	49	81.6	16.3	2.0
Do you wish you had a different job?	50	30.0	66.0	4.0
Are you looking for a different job?	50	18.0	82.0	0
Do you feel good about the work you do?	50	96.0	2.0	2.0
Does your work make you feel valued?	50	96.0	4.0	0
Are you dissatisfied with this job?	50	18.0	80.0	2.0

* represents questions with less than 70% rater agreement

Benefits From Employment

Subjects were asked about standard job benefits they received as a result of employment (Table 10). Overall, it appears that most participants obtained employment that does not provide them with health care, dental, or prescription medication coverage. Slightly more than one-fourth reported having paid vacation days and holidays, and just under one-fourth receive retirement or disability benefits, and paid sick or personal days.

Table 10
Standard Job Benefits From Employment

Benefits Provided by Employer	% Yes	% No	% I Don't Know
* Health care insurance	12.8	78.7	8.5
Prescription medication coverage	4.3	89.4	6.4
Dental coverage	8.5	85.1	6.4
Retirement benefits	10.6	80.9	8.5
Disability benefits	10.6	74.5	14.9
* Paid vacation days	34.0	53.3	10.6
* Paid sick days	21.3	57.5	21.3
* Paid holidays	31.9	57.4	10.6
* Paid personal days	14.9	68.1	17.0

* represents questions with less than 70% rater agreement

Employment and Other Needed Supports

Participants were asked about work accommodations and support they received on the job. While almost one-third of the subjects had an employer who changed the work setting to allow them to do the job, two participants said they still needed other accommodations they didn't have. Over 80 percent of them said they had someone to assist them, and that breaks or changes in their work schedule would be arranged when needed.

When asked about additional support the subjects were receiving (Table 11), more than one-half were receiving assistance with budgeting and handling their money. Slightly less than one half received mental health or counseling services, assistance with recreational activities, and help with cleaning, cooking or shopping. A small percentage (12%) was receiving assistance with basic activities of daily living.

Table 11
Employment and Other Needed Supports

Item	% Yes	% No	% I Don't Know
* Did your employer change your work setting to allow you to do the job?	29.2	66.7	4.2
Will co-workers, a job coach, or someone else assist you on the job if you need help?	88.0	10.0	2.0
Are rest breaks or work schedules arranged when you need them?	83.7	16.3	0
Do you need other workplace accommodations or changes that you do not have now?	4.0	92.0	4.0
Do you receive help with money handling, budgeting, or checkbook use?	64.0	36.0	0
Do you receive vocational rehabilitation counseling?	32.0	66.0	2.0
* Do you receive help with medical services?	38.0	52.0	10.0
Do you receive help handling medication?	30.4	67.4	2.2
Do you receive mental health services or counseling services?	49.0	46.9	4.1
Do you receive help with recreational activities?	44.0	54.0	2.0
Do you receive help with cooking, cleaning, or shopping?	47.9	52.1	0
Do you receive help in completing basic activities of daily living?	12.0	88.0	0
* Are you receiving help finding a better job?	43.5	54.3	2.2
Do you receive other forms of assistance?	2.2	97.8	0

* *represents questions with less than 70% rater agreement*

Impact of Being Employed

Overall, 90% of the subjects reported that their pay from work made them feel as though they had a chance for an improved quality of life (see Table 12). They felt their job gave them enough time to take part in social and recreational activities and helped them to fit into the community. Over 80% stated they were able to afford "extras" for themselves and their family since starting work, and approximately two-thirds of the subjects felt that they earned enough to pay their bills, afford good housing, and could support themselves.

Table 12
Impact of Being Employed

Item	% Yes	% No	% I Don't Know
* Does your pay from work make it possible for you to afford good housing?	66.7	27.1	6.3
Do you earn enough to pay your bills?	69.4	22.4	8.2
Are you able to afford "extras" for yourself (and your family) since starting work?	87.8	12.2	0
* Can you support yourself (and your family) on the money you earn?	68.0	28.0	4.0
Does your pay from work make you feel that you now have a chance for an improved quality of life?	90.2	4.0	4.0
Does your job allow you enough time to take part in social and recreational activities?	94.1	5.9	0
Does your job help you to feel that you fit in with the community?	92.2	2.0	5.9
* Do you have adequate medical coverage?	70.6	21.6	7.8
* Is medical coverage affordable?	66.7	19.6	13.7
* Does coverage make medication affordable?	71.4	18.4	10.2
* Do you have medical coverage that makes dental visits available and affordable?	50.0	38.6	11.4

* *represents questions with less than 70% rater agreement*

Overall Agreement Percentages

A total of 119 questions asking for a yes/no/I don't know response were examined for reliability estimates. Of the 119 questions, 35 have less than 70 percent rater agreement from the first and second interview. Eight-four questions (70.6%) have an agreement above 70 percent. Table 13 presents the agreement percentages for each section of the EOI. A detailed description of rater agreement percentages listed for each item of the EOI will follow.

Table 13
Agreement Identified by Section

Section Title	Items With Less Than 70% Agreement/ Total Questions in Section	% Agreement Above 70%
Choice, Service Satisfaction, and Rehabilitation Benefits	9/35	74.3
Earnings, Benefits, and Other Income	5/20	75.0
Payroll Deductions	5/8	37.5
Worker Perceptions About Their Job	1/21	95.2
Standard Job Benefits	6/10	40.0
Employment Supports	3/14	78.6
Impact of Being Employed	6/11	45.5
Total % of Agreement Above 70% = 70.6%		

To take a closer look at the reliability of the EOI, each question is presented in the following tables with responses collected from the first and second interview, and the percent of agreement obtained for each question. Tables include the question asked, the number of responses that elicited a consistent response for both interviews, the total of consistent responses, and the percent of rater agreement. The numbers in the column labeled Y/Y represent the number of yes responses obtained for both interviews, N/N represents the number of no responses, IDK/IDK the number of I Don't Know responses, and CNS/CNS the number who could not say for both interviews. Questions with less than 70 percent agreement will be revised or omitted prior to using the EOI in future studies.

Rater Agreement of Questions asked on the EOI

A total of 75 percent agreement was obtained for the 35 questions asked about earnings, benefits, and other income subjects received (Table 14). For the most part, subjects were able to report their income sources (Table 15), however, questions about their benefits, specifically Medicare, Medicaid, and Medical Assistance, had low percentages of agreement, as subjects were not able to consistently report whether they received the benefit. Questions asked about payroll deductions also resulted in low agreement. As reported in Table 16, only 3 of the 8 questions asked about payroll deductions resulted in 70 percent agreement. It appeared that most subjects were either not aware of the deductions taken from their paychecks, or did not understand the questions asked.

For the most part, subjects were consistent in their responses to questions asking their perceptions about their job (Table 17). Of the 21 questions asking for perceptions of

job characteristics, work environment, and job satisfaction, all but one had more than 70 percent agreement. The one question that resulted in low agreement asked about the subject's long-term job goal, which had also resulted in low agreement.

The questions asked about standard job benefits are reported in Table 18. For the most part the subjects could report whether they received prescription medication coverage, dental coverage, retirement or disability benefits, but had difficulty in consistently reporting whether they received health care insurance, paid vacation, sick days, personal days, or holidays. Questions asked about work accommodations and other support received resulted in 78.6 percent agreement (Table 19). Subjects were consistent in their responses to questions asking about assistance they received on the job and other support they received such as help with cooking, cleaning or shopping, handling or budgeting their money, and vocational rehabilitation counseling.

The last section reported in this study asked subjects for the perceived impact of being employed (Table 20). Overall, this section had a low percentage of agreement (45.6%). Participants were able to consistently answer the majority of the questions asking about the impact of their employment on their standard of living, but questions inquiring whether they had adequate and affordable medical or dental coverage appeared to be more difficult for the subjects to answer, as more than one-fourth of the subjects could not respond consistently.

Table 14
Subject Agreement of Questions About Choice, Service, Satisfaction, and Rehabilitation Benefits Outcomes

ITEM #	AGREEMENT					% OF AGREEMENT
	Y/Y	N/N	IDK/ IDK	CNS/ CNS	TOTAL	
1. Was it clear to you how CRP would help you to get a job?	38	2	0	0	40	78.4
2. When you first came to CRP, did you have a choice of working at the CRP or in the community?	17	9	0	0	26	51.0
3. Were your options for services explained to you in words you understood?	43	2	0	0	45	88.2
4. Did you understand how employment services could help you?	44	0	0	0	44	86.3
5. Did you have a choice of coming or not coming to CRP for employment services?	27	5	0	0	32	62.7
6. Were you involved in developing your employment plan?	33	4	0	0	37	72.5
7. When you left CRP, did you have the chance to choose the job you wanted?	35	4	0	0	39	76.5
8. Were your work interests asked and talked about?	44	2	0	0	46	90.2
9. Were your work skills asked and talked about?	46	2	0	0	48	94.1
10. Did you choose your own job goals?	33	2	0	0	35	68.8
11. Were employment barriers talked about with you?	25	5	0	0	30	58.8
12. Were you able to try jobs to see how you liked them?	42	3	0	0	45	88.2
13. Did you learn how to look for the job you wanted?	36	3	0	0	37	72.5
14. Did you look for a job on your own?	15	26	0	0	41	80.3
15. Did you get the job that you wanted?	41	1	0	0	42	82.4
16. Did you have more than one job to choose from when you took your job?	17	16	0	0	33	64.7
17. Do you have a long-term job goal?	22	8	0	0	30	58.8

ITEM #	AGREEMENT				TOTAL	% OF AGREEMENT
	Y/Y	N/N	IDK/ IDK	CNS/ CNS		
18. Do you know what you have to do to achieve it?	18	0	2	10	30	58.8
19. Do you feel you will reach your long-term job goal?	21	0	1	11	33	64.7
20. Do you have work skills that employers are looking for today?	45	1	0	0	46	90.2
21. Do you feel you have the skills needed to do the job you were hired for?	47	0	0	0	47	92.2
22. Could you find another job with the job skills you have?	42	2	0	0	44	86.3
23. Did the services you got from CRP help you get your job?	44	0	1	0	45	90.2
24. As a result of services, is it likely that you will be regularly employed?	46	0	1	0	47	92.2
25. Do you feel that your job gives you a chance to live better?	46	0	1	0	47	92.2
26. Were the staff at CRP good at what they do?	47	1	0	0	48	94.1
27. Did you feel comfortable at CRP and were the services right for you?	42	2	0	0	44	86.3
28. Were you treated with respect?	49	0	0	0	49	96.1
29. Was the quality of the services good?	46	2	0	0	48	94.1
30. Are you satisfied with the services that CRP gave to you?	43	2	0	0	45	88.2
31. Was the time you spent at CRP time well spent?	47	2	0	0	49	96.1
32. Was the time from coming to CRP to your getting a job acceptable?	34	1	1	0	36	70.6

ITEM #	AGREEMENT				TOTAL	% OF AGREEMENT
	Y/Y	N/N	IDK/ IDK	CNS/ CNS		
33. Will the training or work experience that you got at CRP help you to keep your job?	48	0	0	0	48	94.1
34. Is the job you got one that will help you to achieve your long-term goal?	20	0	1	9	30	58.8
35. Would you recommend this CRP to others?	41	4	1	0	46	90.2

Table 15
Subject Agreement of Questions Asked About Income Sources

ITEM #	AGREEMENT				TOTAL	% OF AGREEMENT
	Y/Y	N/N	IDK/ IDK	CNS /CNS		
2. (a) Do you get Social Security Insurance?	20	15	0	1	36	70.6
2. (b) Do you get Social Security Disability Insurance?	9	21	1	0	31	60.8
2. (c) Do you get General assistance?	0	36	3	0	39	76.5
2. (d) Do you get Temporary Assistance to Needy Families?	0	44	1	0	45	88.2
2. (e) Do you get Workers Compensation?	0	43	1	0	44	86.3
2. (f) Do you get Veterans disability payments?	0	46	1	0	47	92.1
2. (g) Do you get Private insurance settlements?	0	44	1	0	45	88.2
2. (h) Do you get Alimony?	0	47	0	0	47	92.2
2. (i) Do you get Child care support payments?	0	46	0	0	46	90.2
2. (j) Do you get Other?	0	39	1	1	41	80.4
4. (a) Do you receive Food stamps?	3	40	1	0	44	86.3
4. (b) Do you receive Medicare?	21	12	1	0	34	66.7
4. (c) Do you receive Medicaid?	9	21	2	0	32	62.7
4. (d) Do you receive Medical assistance care?	8	16	2	0	26	51.0
4. (e) Do you receive Housing assistance?	9	28	1	0	38	74.5
4. (f) Do you receive Residential services?	3	35	1	0	39	76.5
4. (g) Do you receive Home energy assistance?	3	40	2	0	45	88.2
4. (h) Do you receive Child care?	1	45	0	0	46	90.2
4. (i) Do you receive Transportation?	6	22	1	0	29	56.9
4. (j) Do you receive Other state-local public assistance?	0	41	1	0	42	82.4

Table 16
Subject Agreement of Questions Asked About Payroll Deductions

ITEM #	AGREEMENT				TOTAL	% OF AGREEMENT
	Are the following deducted from your paycheck?	Y/Y	N/N	IDK/ IDK		
1. Federal income tax	31	2	2	0	35	68.6
2. State (and/or local) income tax	29	3	2	0	34	66.7
3. Social security tax (FICA)	21	2	2	0	35	68.7
4. Medicare	16	8	3	0	27	53.0
5. Retirement program	2	34	2	0	38	74.5
6. Medical insurance	2	30	2	0	34	66.7
7. Union dues	1	38	0	0	39	76.5
8. Other	36	0	0	0	36	70.6

Table 17 a
Subject Agreement of Question About Worker Perceptions of Job Characteristics

ITEM #	AGREEMENT				TOTAL	% OF AGREEMENT
	Y/Y	N/N	IDK/ IDK	CNS /CNS		
1. Does your job provide steady employment with regular wages?	44	2	0	0	46	90.2
2. Will this job help you get a better job with better pay?	37	1	2	0	40	78.4
3. Does this job provide about the same number of hours of paid work per pay period?	43	2	0	0	45	88.2
4. Is this job a regular job with the employer?	37	0	0	0	37	72.5
5. Does this job provide year round work?	47	1	1	0	49	96.1
6. Is this job consistent with your interests and skills?	43	1	1	0	45	88.2
7. Is this job in keeping with your long-term employment goals?	27	1	0	4	32	62.7

Table 17 b
Subject Agreement of Questions About Perceptions of Work Environment

ITEM #	AGREEMENT				TOTAL	% OF AGREEMENT
	Y/Y	N/N	IDK/ IDK	CNS /CNS		
1. Do you have a reasonable work schedule?	45	2	0	0	47	92.2
2. Does your employer permit you time off if you need medical or rehabilitation services?	39	0	2	0	41	80.4
3. Is your travel time and distance to work acceptable?	46	0	0	0	46	90.2
4. Are your work assignments clearly explained?	47	0	0	0	47	92.2
5. Is your job too stressful?	5	32	0	0	37	72.5
6. Do you socialize with your co-workers at work?	37	2	0	0	39	76.5
7. Do you feel threatened or fearful while at work?	1	35	0	0	36	70.6
8. Does this job have safe work conditions?	42	3	0	0	45	88.2

Table 17 c
Subject Agreement of Questions About Worker Perceptions of Job Satisfaction

ITEM #	AGREEMENT				TOTAL	% OF AGREEMENT
	Y/Y	N/N	IDK/ IDK	CNS /CNS		
1. Would you like to keep this job for a long time?	38	7	0	0	45	88.2
2. Do you wish you had a different job?	11	28	1	0	40	78.4
3. Are you looking for a different job?	6	34	0	0	40	78.4
4. Do you feel good about the work you do?	47	0	0	0	47	92.2
5. Does your work make you feel valued?	48	0	0	0	48	94.1
6 Are you dissatisfied with this job?	2	38	0	0	40	78.4

Table 18
Subject Agreement of Questions Asked About Standard Job Benefits From Employment

ITEM #	AGREEMENT				TOTAL	% OF AGREEMENT
	Y/Y	N/N	IDK/ IDK	CNS /CNS		
Besides your weekly pay, does your employer provide you any of the following benefits?						
1. Health care (medical) insurance	3	28	2	0	33	64.7
2. Prescription medication coverage	2	39	2	0	43	84.3
3. Dental coverage	1	37	1	0	39	76.5
4. Retirement benefits	3	34	2	0	39	76.5
5. Disability benefits	3	31	5	0	39	76.5
6. Paid vacation days	13	21	1	0	35	68.8
7. Paid sick days	6	24	4	0	34	66.7
8. Paid holidays	10	17	3	0	30	58.8
9. Paid personal days	4	26	2	0	32	62.7
10. Other standard benefits	35	0	0	0	35	68.6

Table 19 a
Subject Agreement of Questions About Employment Supports

ITEM #	AGREEMENT				TOTAL	% OF AGREEMENT
	Y/Y	N/N	IDK/ IDK	CNS /CNS		
1. Did your employer change your work setting to allow you to do the job?	4	28	0	0	32	62.7
2. Will co-workers, a job coach, or someone else assist you on the job if you need help?	42	0	0	0	42	82.3
3. Are rest breaks or work schedules arranged when you need them?	39	2	0	0	41	80.4
4. Do you need other work place accommodations or changes that you do not have now?	0	43	0	0	43	84.3

Table 19 b
Subject Agreement of Questions About Other Needed Assistance/Support

ITEM #	AGREEMENT				TOTAL	% OF AGREEMENT
	Y/Y	N/N	IDK/ IDK	CNS /CNS		
1. Help with money handling, budgeting, or checkbook use?	27	15	0	0	42	82.4
2. Vocational Rehabilitation counseling?	11	25	0	0	36	70.6
3. Help with medical services?	12	19	0	0	31	58.8
4. Help in handling medication?	13	25	0	0	38	74.5
5. Mental health services or counseling services?	19	21	0	0	40	78.4
6. Help with recreational activities?	19	22	0	0	41	80.4
7. Help with cooking, cleaning, or shopping?	21	19	0	0	40	78.4
8. Help in completing basic activities or daily living?	1	42	0	0	43	84.3
9. Help in finding a better job?	12	17	0	0	29	56.8
10. Other forms of assistance?	0	40	0	0	40	78.4

Table 20
Subject Agreement of Questions About Perceived Impact of Being Employed on Individual's Continued Standard of Living

ITEM #	AGREEMENT				TOTAL	% OF AGREEMENT
	Y/Y	N/N	IDK/ IDK	CNS /CNS		
1. Does your pay from work make it possible for you to afford good housing?	23	7	0	0	30	58.8
2. Do you earn enough to pay your bills?	31	6	1	0	38	74.5
3. Are you able to afford the "extras" for yourself (and your family) since starting work?	41	4	0	0	45	88.2
4. Can you support yourself (and your family) on the money you earn?	26	8	0	0	34	66.7
5. Does your pay from work make you feel that you now have a chance for an improved quality of life?	43	0	0	0	43	84.3
6. Does your job allow you enough time to take part in social and recreational activities?	46	1	0	0	47	92.2
7. Does your job help you to feel that you fit in with the community?	45		1	0	46	90.2
8. Do you have adequate medical coverage?	29	3	1	0	33	64.7
9. Is medical coverage affordable?	26	4	0	0	31	60.8
10. Does coverage make medication affordable?	30	1	1	0	32	62.7
11. Do you have dental coverage that makes dental visits available and affordable?	12	11	3	4	30	58.8

CHAPTER 5

Summary, Conclusions and Implications

This study examined the reliability of an experimental version of the Employment Outcomes Instrument (EOI), being developed by researchers at the Research and Training Center (RTC), University of Wisconsin-Stout. The primary goal of this study was to determine the percent of agreement for responses given at two separate interviews. Information from this study will be used by the RTC to refine the EOI potential item pool prior to using it in future studies of employment outcomes.

The research objectives of this study included:

1. Identify the employment outcomes of subjects who have received services from a community rehabilitation program (CRP).
2. Determine the percent of agreement obtained when comparing responses given at two interviews, conducted by separate interviewers within a three-week time span.

Conclusions Based on Results

Research Objective 1: Identify the employment outcomes of subjects who have received services from a community rehabilitation program (CRP). The majority of the subjects involved in this study were persons with cognitive disabilities or mental illness. More than three-fourths of the participants were single and more than half were living in a supported setting such as group home or with their parents. Most subjects had secured a position within the community, and some also continued to work part-time at the CRP from which they had received services.

The average monthly income ranged from \$50 to \$2,400 with a mean of \$534.15 (according to the first interview). However, much of this data was not reliable, as

participants were unable to consistently provide information about their income and benefits. Less than half of the subjects were able to report their average monthly earnings, and of those that reported an amount, only four gave an answer consistent in both interviews. Similarly, participants had difficulty reporting data about Social Security benefits. Most were able to report if they received the benefit, but on average, only about half were able to report how much they received. This suggests that wage and benefit information might be more accurate if collected from an alternate source.

Subjects varied greatly in the employment they had obtained. More than three-fourths worked part-time at a community-based position the CRP helped them find. Many (45.1%) were receiving support from a job coach and more than three-fourths felt they could rely on their work supervisor if they had any problems. Subjects worked as janitors, dishwashers, assemblers, dietary aids, and housekeepers, among other positions. Close to one-half of the participants (23) reported having a second job, 13 of which were located at the CRP. In addition to their community employment many reported involvement in additional volunteer or recreational activities.

It appeared as though most of the subjects felt good about their work and were satisfied with their job. However, two individuals consistently reported dissatisfaction with their job, 11 wished they had a different job, and 5 felt their job was too stressful. This information will be valuable for CRPs in determining consumer satisfaction, and assisting with alternate placement if an individual is unhappy with their current position.

Research Objective 2. Determine the percent of agreement obtained when comparing responses given at two interviews, conducted by separate interviewers within a three-week time span. Overall, of the 119 questions used in this study, most showed good agreement when the two interviews were compared. This indicates that a large percentage of the items used on the EOI met pre-established reliability criteria resulting in reasonably consistent responses over time. Additional item refinement should lead to even better reliability.

While a majority of the items on the EOI (84) had over 70 percent agreement, there are three sections with significantly low agreement percentages. These sections dealt with payroll deductions (37.5%), standard job benefits (40.0%), and the impact of being employed (45.5%), that must be addressed before future use of the EOI. Questions about wages, benefits (SSI/SSDI), goals, payroll deductions, and job benefits, proved difficult for subjects to answer during the interview.

The amount of missing or inconsistent information gathered during the two interviews indicated that the subjects might not be an accurate source for all information. In future studies with subjects similar to this population, other sources such as the participant's family, guardian, case manager, or economic support worker might be the best source of this data. Additional questions that subjects found difficult to answer asked the respondents to recall information from an earlier time frame, such as prior to their participation in the CRP. Questions about goals on referral to the CRP were confusing to the subjects. It appeared to be difficult for subjects to retrospectively recall what they were thinking or feeling prior to attending the CRP, especially because many had worked with the CRP for many years.

Discussion

The sample used in this study primarily included persons with cognitive disabilities or mental illness. When administering the EOI, interviewers observed that many participants were limited in their ability to understand the questions. This may be due to the nature of the disability that was represented in this sample. Terms such as “employment goals” and “services received” appeared to be difficult for subjects to conceptualize. This likely resulted in inconsistency in the data obtained for these questions. Despite reminders to ask for clarification if needed, often times subjects would not understand a question but would answer anyway. For example, interviewers reported that participants would answer a question, and immediately following their answer they would admit they did not understand what the question meant. In future versions of the EOI, it is important that questions be clear, concise, and written with language that can be understood by the persons with cognitive limitations. Further research conducted on the EOI will continue to refine the questions in order to ensure reliability and validity of the items included in the instrument.

It appears that the best data collection format for this population would be a face-to-face interview. Body language (i.e., avoiding eye contact, glancing around the room, and shifting in their chair) often indicated when participants did not understand a question. Other times, body language such as a smile or nod may have indicated when a participant understood the questions asked. This would go undetected in an alternative format such as a phone interview. The face-to-face interview format was also important in developing the rapport needed, especially when asking for personal information such as satisfaction or dissatisfaction with services, wage, and benefit information.

In future research, an alternate format of the instrument such as a decision tree might be used. Which using the current form of the EOI, some participants were not able to answer several questions in one section, which appeared to cause frustration with some individuals. This would allow interviewers to stop asking questions if the participant is unable to answer the first few in a section. This would also allow more time to concentrate on gathering information that the participant does know, rather than causing frustration by asking for information the subject is not able to provide.

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