

EXAMINING A PROPOSED JOB RETENTION MODEL FOR ADULT WORKERS
WITH MENTAL RETARDATION: IN SUPPORTED EMPLOYMENT

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Abstract

This research provides a comprehensive analysis of factors predicting job retention (JR), job satisfaction (JS), and job performance (JP) of workers with mental retardation (MR). The findings highlight self-determination as a critical vocational skill in influencing three important employee's outcomes, JR, JS, and JP, for workers with MR. This manuscript provides a background to the problem, purpose, hypothesis, theoretical framework, method, and results of the study. Insights are discussed based the study findings. Implications for theory and practice and the limitations leading to future research concerning adult workers with MR are presented.

Background to the Problem

Job retention for individuals with mental retardation (MR) is a critical component in the effort to assist individuals with MR move from dependency to self-sufficiency (Rusch, 1990). Work and job retention plays a central role in adult life, crucially affecting self-concept and wellness. A person's involvement in the mainstream labor force fulfills both individual and societal expectations (Super, 1990). Employment statistics, whether they address the overall low employment rate of people with MR or their ability to stay employed over time, document the need for more intensive job retention efforts (Roessler, 2002).

The problem is that government and state initiatives alone cannot solve the employment challenges of many people with MR. Rehabilitation providers and human resource (HR) professionals need to increase the effectiveness of placement and job retention services

(Gilbride, Stensrud, Vandergoot, & Golden, 2003). This requires a better understanding of the relationship between personal and work characteristics of working adults with MR and their ability to remain employed. The intent of the study was to develop job retention strategies, through a proposed job retention model, that could offer rehabilitation and HR professionals a useful structure for understanding and implementing job retention interventions for people with MR.

The Purpose and Research Questions

The purpose of the study was to test a hypothesized job retention (JR) model for adult workers with MR by examining the predictive relationships between such factors as work-related social behaviors (WRSB), self-determination (SD), person-job congruency (PJC), job performance (JP), job satisfaction (JS) and job retention (JR).

The overarching research questions were: (a) Are work-related social behaviors, self-determination skills, person-job congruency, job performance, and job satisfaction related to job retention in workers with MR? (b) Are job satisfaction, retention, work-related social behaviors, self-determination, and person-job congruency related to job performance in workers with MR? (c) Are these same variables related to job satisfaction in workers with MR?

Hypothesis

To explore the relationship among the various variables, three research hypotheses were tested using multiple regression analysis.

H1. In working adults with MR, a linear combination of the variables WRSB, PJC, SD, JP, and JS would account for a significant amount of variance in the dependent variable, JR.

H2. In working adults with MR, a linear combination of the variables WRSB, PJC, SD, JS, and JR would account for a significant amount of variance of the dependent variable, JP.

H3. In working adults with MR, a linear combination of the variables WRSB, PJC, SD, JP, and JR would account for a significant amount of variance in the dependent variable, JS.

Conceptual Framework

The framework for this study was derived from theories and concepts relevant to long-term employment of individuals with MR. A literature review provided insights into the reasons low JR might exist and identified work variables related to JR of individuals with MR. These variables include work-related social behaviors, person-job congruency, self-determination, job satisfaction and job performance.

Work-Related Social Behaviors

The work-related social behaviors required for successful job retention include: (a) social awareness (Chadsey-Rusch, 1992; Rosenberg & Brady, 2000), (b) temperament (Wehman & Kregel, 1998), and (c) personality characteristics (Brady & Rosenberg, 2002). Social awareness includes appropriate interaction with supervisors and co-workers, offering assistance, and understanding of the work environment (Martin et al., 1990). Temperament includes adaptive, subordinate, and aberrant behaviors (Hill et al., 1986), ability to deal with the pressures and stress of the job, and self-control (Salzberg, Lignugirs-Kraft, & McCuller, 1988). Personality characteristics include one's approach to personal appearance and hygiene (Greenspan & Shoultz, 1981; Martin et al., 1990) and the ability to cooperate, accept constructive criticism, manage time, express appreciation, value honesty, and conform to socially acceptable standards of truthfulness (Rosenberg & Brady, 2000). Appropriate work-related social behaviors are important factors for long-term employment of individuals with MR. Lack of work-related social

behaviors is found twice as often as performance factors as reasons for unsuccessful job retention in adult workers with MR. Good work-related social behaviors affect job satisfaction and job performance, which leads to successful job retention (Callahan & Garner, 1997; Chadsey-Rusch, 1992; Rosenberg & Brady, 2000).

Person-Job Congruency

Person-job congruency is the match between a person's interests, characteristics, skills and abilities (both behavioral and cognitive) with the job requirements and work environment. Successful person-job congruency requires careful planning and increases employee job satisfaction and job performance leading to higher job retention (Holland, 1996; Leach, 2002; Lofquist & Dawis, 1991; Roessler, 2002; Super, 1990).

Self-Determination

SD is the "capacity to choose and to have the choices, rather than reinforcement contingencies, drives, or any other forces or pressures, to be the determinants of one's actions" (Deci, 1992, p. 38). Self-determined behavior is also defined as a primary causal agent in one's life and making choices regarding one's quality of life free from undue external influences or interferences (Wehmeyer, 1996). Self-determination emerges from learning across the lifespan and empowers individuals to plan and make choices about their careers, work, and life moving these individuals to community-based work and independent living environments. SD refers to actions that are identified by four essential characteristics: (a) the person acts autonomously, (b) his/her behaviors are self-regulated, (c) the person imitates a response to the event in a psychologically empowered manner, and (d) the person acts in a self-realizing manner (Wehmeyer, 2001). Higher self-determination and increased capacity of the four essential characteristic result in better work outcomes for individuals with MR (Field, Martin, Miller, Ward, & Wehmeyer, 1998; Wehmeyer & Palmer, 2003). When individuals with MR capitalize on their self-determination, they are

more likely to find competitive employment opportunities and achieve job satisfaction, job performance, and job retention (Wehmeyer, 1999, 2001; Wehmeyer & Palmer, 2003).

Job Performance

Job performance depends on job responsibility and task production. Job responsibility is one's commitment and dedication to a job and involves work endurance, work motivation, work initiative, and work attitude. Task production refers to the ability to perform specific work tasks that require certain quality and quantity of work. Quality of work is an employee's ability to work at the accepted standard for accuracy and quantity of work is an employee's ability to work at an accepted rate and pace of productivity. For an individual with MR, job performance improves job retention and increases job satisfaction (Rosenberg & Brady, 2000; Roessler, 2002).

Job Satisfaction

Job satisfaction refers to the degree to which people like their jobs and the feelings about their jobs or job experiences in relation to previous experiences, current expectations, or available alternatives. Job satisfaction increases intrinsic motivation and personal well being and lowers work-related accidents, stress, and discord within work groups. Job dissatisfaction has been related to absenteeism, tardiness, grievances, and turnover, which is costly to the organization. Job satisfaction affects work attendance, maintenance of quality standards, and willingness to search for improved work methods and to cooperate with other employees. Job satisfaction affects job retention in the population with MR (Balzer, Kihm, Smith, Irwin, Bacheochi, Robie, 2000; Spencer, 1997; Tett & Meyer, 1993) and job performance (Mueser et al., 2001; Cranny, Smith & Stone, 1992; Rosenber & Brady, 2000; Roessler, 2002).

A Hypothesized Job Retention Model

Based on the literature, the hypothesized job retention model suggests that if adult workers with MR maintain appropriate work-related social behaviors (Rosenberg & Brady,

2000), make their own decisions (self-determination; Wehmeyer & Palmer, 2003), and work at jobs that are congruent with their interests and abilities (person-job congruency; Holland, 1985); they will have high job satisfaction, good job performance, and long-term employment (job retention). Furthermore high job satisfaction in individuals with MR predicts job performance and job retention (Mueser, Becker, & Wolfe, 2001). High job performance predicts job satisfaction and job retention (Brady & Rosenberg, 2002). Job retention will continue to predict high levels of job satisfaction and job performance, sustaining a circular performance/job retention model for workers with MR.

Method

The following section discusses the method including the sample, measurement instruments, and procedure for data collection and analysis.

Participants / Sample.

A convenience sample was used due to the limited access to and availability of the MR population (Harlow, 2004). The sample for this study included 100 adult workers with MR, both males and females; that had been employed for at least 3 months. They were selected from supported employment and workforce development agencies.

Measurement Instruments.

A test battery of four standardized instruments was used for the study. The Jobs Observation Behavior Scale (JOBS:OSD) (Brady, Rosenberg, & Frain, 2006) was used to measure job performance and work-related social behaviors. The Job-in-General (JIG) Scale (Ironson, Smith, Brannick, Gibson, & Paul, 1989) was used to measure job satisfaction. The Arc's Self-Determination Scale (Wehmeyer, 1996; Wehmeyer & Palmer, 2003) was used to measure self-determination. Holland's (1985) Self-Directed Search (SDS) measured person-job

congruency. Job retention was measured by the number of months the participant was employed continuously at the same job in the open labor market earning a competitive wage. All instruments are standardized tests and were chosen for their ease of comprehension and use, theoretical base development, high reliability, and validation with populations with MR (Brady et al., 2006; Holland, 1985; Ironson et al., 1989; Wehmeyer, 1996).

Data Collection – Procedures

The battery of tests were administered to and completed by each participant. All instruments were designed for individual or group administration. For those participants that were able to read, the instruments were administered in small groups of 3 to 4 individuals. Questions were read orally to each group as participants followed along. For those individuals unable to participate in group administration, due to specific disabilities that require more individualized explanation of questions, instruments were administered one-on-one. Participants were allowed to ask for clarification of questions they did not fully understand, and assistance was provided by the administrator. It took 60 to 90 minutes for participants to complete all four instruments. To avoid fatigue, the instruments were administered in two separate sessions. The first session consisted of the JIG and ARC. The second session consisted of the SDS and JOBS:OSD. No more than 48 hours lapsed between the two sessions. Participation was voluntary and confidentiality was maintained (e.g., participants were identified by a code number). All participants were informed about the purpose and nature of the research.

Results - Analysis of Data

An alpha level of .05 was used for all statistical analysis. Bivariate scatter plots, tests of normality, and preliminary multiple regression analyzes were run to check for outliers, non-normality, nonlinear relationships, and multicollinearity. Two cases with extremely low z scores

on SD scale, or more than 3 standard deviations from the mean, were found to be univariate outliers and deleted. Four questionnaires were excluded due to substantial missing data or participant drop out. Thus, from the original sample of 100 participants, 94 were included in the analysis. No violations of assumptions were found other than evidence of multicollinearity between JP and WRSB. Multicollinearity occurs when variables are so highly correlated with each other that it is difficult to come up with reliable estimates of their individual regression coefficients (Cohen & Cohen, 1983). When two variables are highly correlated, they are basically measuring the same phenomenon.

Evaluations of multicollinearity showed a high correlation coefficient of .953 between JP and WRSB. This multicollinearity may be due to the work related behaviors being performance driven. Thus, WRSB and JP were combined in one variable and referred to as job performance (JP). Table 1 presents the descriptive statistics and intercorrelation among variables with the combination variable – JP. All 11 correlations were significant at $p < .05$.

Table 1

Descriptive Statistics and Intercorrelations among variables (N = 94)

	M	SD	1. JR	2. JP	3. JS	5. PJC	6. SD
1. Job retentions	27.40	28.25	--				
2. Job performance	138.18	14.47	.416**	--			
3. Job satisfaction	29.07	6.03	.428**	.324**	--		
4. Person-Job congruency	1.86	0.74	.275**	.533**	.228**	--	
5. Self-determination	96.63	15.87	.494**	.579**	.460**	.515**	--

Note * $p < .05$, ** $p < .01$

To examine the relationship between variables, three multiple regression analyses were performed to analyze significant relationships (Tabachnick & Fidell, 2001). In all three hypotheses the null hypotheses were rejected due to the linear combination of predictor measures being significant. Beta weights and hierarchical multiple regression analysis were used to determine the percentage of the predictor variables contribution to the total variance of the selected criterion variables (Cohen, 1992; Tabachnick & Fidell, 2001) of JR, JP, and JS.

Hypothesis One – Regression Analysis One

Entering all variables simultaneously, the linear combination predictor measure (PJC, SD, JP, and JS) was significantly related to job retention, $F(4, 89) = 10.295, p < .05$ and considered significantly better than would be expected by chance. The multiple correlation coefficient (R) was .562, and R^2 was .31 indicating that approximately 31% of the variance of job retention in the sample could be accounted for by the linear combination of the predictor variables, PJC, SD, JP, and JS. The effect size of .31 is characterized as a large effect size (Cohen, 1988).

Table 2 presents indices to indicate the relative strength of the individual predictors by examining the significance, partial correlations, R , R^2 , adjusted R^2 , and the change in R^2 . All the bivariate correlations between the predictor measures (JP, SD, PJC, and JS) and the job retention (JR) measure were positive as expected. Two of the four work measures (JS and SD) were statistically significant at .05 ($p < .05$). On the basis of these correlational analyses, it was concluded that the only useful predictors for predicting job retention of adult workers with mental retardation (MR) were SD and JS. These predictors alone accounted for 28% (.28 + .25 = 0.53 squared) of the variance of the job retention scale. A stepwise hierarchical regression was used to assess whether a variable substantially added to prediction by examining the R^2 and the

change in R^2 . In the sample, it could be concluded that SD was the most important predictor of JR and accounted for 24% of the variance of the job retention scale. JS accounted for 5% of the variance; PJC and JP were not significant and together accounted for 1% of the variance.

Table 2

Partial Correlations and Hierarchical Regression for Job Retention

	Sig	Partial Correlations	R	R Square	Adjusted R Square	R Square Change
SD	.000	.28**	.494	.244	.236	.244
JS	.012	.25**	.544	.296	.280	.051
JP.	.107	.17	.562	.315	.293	.020
PJC	.789	.02	.562	.316	.286	.001

* $p < .05$, ** $p < .01$

Hypothesis Two – Regression Analysis Two

Entering all variables simultaneously, the linear combination predictor measure (PJC, SD, JS, and JR) was significantly related to JP, $F(4, 89) = 16.881, p < .05$, and was considered significantly better than would be expected by chance. The multiple correlation coefficients (R) was .657, and R^2 was .431, indicating that approximately 43% of the variance of job performance (JP) in the sample could be accounted for by the linear combination of the predictor variables PJC, SD, JS, and JR. The effect size of .43 is characterized as a large effect size (Cohen, 1988).

Table 3 reports indices to indicate the relative strength of the individual predictors by examining the beta weights, partial correlations, R , R^2 , Adjusted R square, and the change in R^2 . All the bivariate correlations between the predictor measures (SD, PJC, JS, and JR) and the job performance (JP) measure were positive as expected. Two of the four work measures (SD and PJC) were statistically significant at .05 ($p < .05$). On the basis of these correlational analyses, it

was concluded that the only useful predictors for predicting JP of adult workers with mental retardation (MR) were SD and PJC. These predictors alone accounted for 41% (.34 + .30 = 0.64 squared) of the variance of the job performance scale. A stepwise hierarchical regression was used to assess whether a variable substantially added to prediction by examining the R^2 and the change in R^2 . In the sample, it was concluded that SD was the most important predictor of JP and accounted for 33.5% of the variance of the job performance scale. PJC accounts for 7.5% of the variance. JR and JS were not significant and together accounted for only 2% of the variance.

Table 3

Partial Correlations, Hierarchical Regression for Job Performance

	Sig.	Partial Correlations	R	R Square	Adjusted R Square	R Square Change
SD	.000	.30**	.579	.335	.328	.335
PJC	.001	.34**	.640	.410	.397	.075
JR	.077	.17	.656	.430	.406	.020
JS	.686	.04	.657	.431	.411	.001

* $p < .05$, ** $p < .01$

Hypothesis Three – Regression Analysis Three

Entering all variables simultaneously, the linear combination of predictor (SD, PJC, JP, and JR) measures was significantly related to JS, $F(4, 89) = 8.035, p < .05$, and was considered significantly better than would be expected by chance, and there was a linear relationship of Y to the predictor variables. The multiple correlation coefficient (R) was .516, and R^2 was .267, indicating that approximately 27% of the variance of JS in the sample could be accounted for by the linear combination of the predictor variables, SD, PJC, JP, and JR. The effect size of .27 is characterized as a large effect size (Cohen, 1988).

Table 4 presents indices to indicate the relative strength of the individual predictors by examining the significance, partial correlations, R , R^2 , adjusted R square, the change in R^2 . All the bivariate correlations between the predictor measures (SD, PJC, JP, and JR) and the job satisfaction (JS) measure were positive as expected. Two of the four work measures (SD and JR) were statistically significant at .05 ($p < .05$). On the basis of these correlational analyses, it was concluded that the only useful predictors for predicting job satisfaction of adult workers with MR were SD and JR. These predictors alone accounted for 26% (.26 + .25 = 0.51 squared) of the variance of the job satisfaction scale. A stepwise hierarchical regression was used to assess whether a variable substantially added to prediction by examining the R^2 and the change in R^2 . In the sample, it could be concluded that SD was the most important predictor of JS and accounted for 21% of the variance of the job satisfaction scale. JR accounted for 5% of the variance. PJC and JP were not significant and together accounted for less than 1% of the variance.

Table 4

Partial Correlations, Hierarchical Regression with Job Satisfaction

	Sig.	Partial Correlations	R	R Square	Adjusted R Square	R Square Change
SD	.00	.26**	.460	.211	.203	.211
JR	.01	.25**	.515	.265	.249	.054
JP	.64	.04	.515	.266	.241	.001
PJC	.85	.00	.516	.267	.232	.001

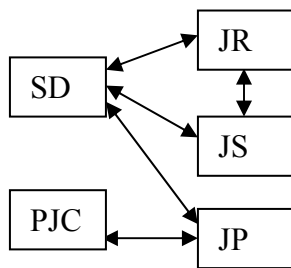
* $p < .05$, ** $p < .01$

Discussions of the Results

The findings of the three multiple regression analyses confirm that not all the variables in the hypothesized JR model were statistically significant and the overall model fit was not fully

satisfactory. Findings consistent and inconsistent with the hypothesized JR model lead to a revised model.

Findings that support the hypothesized JR model. Consistent with the hypothesized JR model, JS and SD are the only predictors of JR; SD and PJC are the only predictors of JP; JR and SD are the only predictors of JS. Additionally, there is a predictive relationship between PJC and SD (see Figure 2).



Findings inconsistent with the hypothesized JR model. Inconsistent with the hypothesized model and previous research, there was no significant relationship between JR and JP nor between JP and JS. The results also showed no significant relationship of PJC with JS and JR, which suggests a limited fit between the hypothesized model and the study’s findings. To improve the overall model fit, the model was modified by eliminating direct relationships between JR and JP, JP and JS, PCJ and JS, and PJC and JR as illustrated in Figure 2.

Although only two of the study variables (SD and JS) were significant predictors of JR, SD revealed a unique and strong predictive capability for all three work outcomes (JR, JP, and JS). Conclusions and interpretations drawn from the results of this study are discussed by each criterion variable or work outcome JR, JP, JS. Since SD has been identified as an important predictor of JR, JP, and JS, a discussion of SD will follow.

Predictors of Job Retention

As expected, and consistent with the hypothesized model, H1 supported the existence of a positive relationship between SD, JS, and JR of adult workers with MR. SD accounted for most of the variance, 24%, and is the major predictor of JR. Although significant, JS accounted for only 5% of the variance, and the correlations were low to moderate. This indicates that JS is only a small part of the influence on JR in workers with MR (see figure 11).

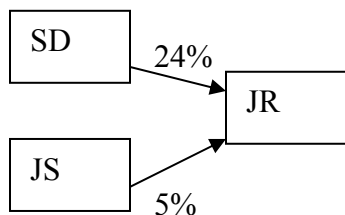


Figure 11 – The conclusion of H1.

SD – JR relationship. The significant relationship between SD and JR adds to the current body of knowledge around SD and positive outcomes for young adults with MR transitioning into community life (Wehmeyer, 1996). Individuals who possess high self-determination are more independent and more likely to find competitive employment (Wehmeyer & Palmer, 2003). These individuals are significantly more likely to be working for higher wages and receive more company benefits (Wehmeyer & Schwartz, 1997). This leads to longer job retention and financial independence. These individuals are more likely to maintain community-based work and live in independent environments (Wehmeyer & Bolding, 2001; Wehmeyer, Agran, & Hughes, 2000). This successful job retention helps people with MR establish social relationships, develop self-confidence, and further self-determination skills, improving their quality of life (Roessler & Rubin, 1998).

JS – JR relationship. The significant positive relationship between JS and JR supports the hypothesized JR model and Roessler’s (2002) 3M Job Retention Model which suggests that individuals with disabilities who are satisfied with their job and their work environment are

employed longer. Satisfaction occurs when the job provides activities that reinforce personal preferences. Job satisfaction refers to the degree to which people like their jobs (Spector, 1997) and the feelings about their job or job experiences in relation to previous experiences, current expectations, or available alternatives (Balzer, Kihm, Smith, Irwin, Bacheochi, & Robie, 2000). Poor job satisfaction leads to job loss (Roessler & Rumrill, 1998).

PJC - JR and JP – JR relationship. Results indicated that both PJC and JP failed to demonstrate significant predictive relationships with JR. These results are inconsistent with the hypothesized JR model's prediction and with Roessler's (2002) 3M Job Retention Model. The 3M Job Retention Model suggests that the appropriate person-job match is a prerequisite to improving job retention and performance outcomes (Roessler, 2002). This inconsistency may be because supported employment is a controlled environment where workers with MR are placed on the job if they perform well and have good work related behaviors regardless of their interest in the job (PJC) and work environment. Therefore, whether people are employed 3 or 36 months, they have good work performance and work behaviors. Thus, in a supported employment environment the JP-JR and the PJC-JR relationship are difficult to measure. Further research is needed to understand if person-job fit is related to levels of job satisfaction and job tenure and if new work behaviors and skills relate to improved levels of job satisfaction and tenure (Roessler, 2002).

Predictors of Job Performance

In the second regression analysis JP was the criterion variable. Consistent with the hypothesized model, SD and PJC were significant and positive predictors of JP in adult workers with MR. SD was the strongest predictor of JP and accounted for the most variance, 33.5%.

Although PJC was significant, it accounted for only a small portion of the variance 7.5%; see Figure 12. JR and JS were not significant and together accounted for only 2% of the variance.

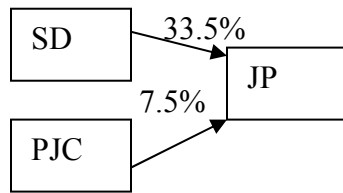


Figure 12 – The conclusion of H2

SD – JP relationship. The significant positive relationship between SD and JP adds to the current body of knowledge around SD and positive outcomes for working adults with MR. Workers who were more self-determined preformed better on the job (Bradley & Rosenberg, 2002; Wehmeyer & Palmer, 2003), and are more independent (Wehmeyer & Palmer, 2003). Self-determination empowers individuals to plan and make choices about their careers, work, and life (Biklen, 1988; Wehmeyer, 2001). Enhanced self-determination of adults with MR moves these individuals to community-based work and independent living environments (Stancliffe, Abery, & Smith, 2000; Wehmeyer & Bolding, 2001).

PJC – JP relationship. The significant relationship between PJC and JP further confirms Roessler’s (2002) and Leach (2002) in that careful job match or person-job congruency results in good job performance. Additionally, proper placement, support, and careful job match that take into account individual interests, skills, and abilities results in good job performance (Rosenberg & Brady, 2000). With proper job match and support, workers with MR perform their jobs equal to or better than non-disabled workers at entry-level positions (Rosenberg & Brady, 2000).

JS – JP relationship. Results indicated that JS failed to demonstrate significant predictive relationship with JP. This result contrasts Roessler’s (2002) model but is consistent with research (Iaffaldano & Muchinsky, 1985; Tett & Meyer, 1993) in non-disabled populations. It has been

found that no relationship exists between JP and JS for individuals without MR (Iaffaldano & Muchinsky 1985). Thus, this study supports the research on the workers without MR in that JP is not predictive of JS and vice versa (Iaffaldano & Muchinsky, 1985; Tett & Meyer, 1993).

Predictors of Job Satisfaction

In the third multiple regression analysis, JS was the criterion variable. Consistent with the hypothesized job retention model, SD and JR were significant and positive predictors of JS. SD accounts for most of the variance in JS (21%), but JR accounted for only 5% of the variance (see Figure 13). PJC and JP were not significant and together accounted for less than 1% of the variance.

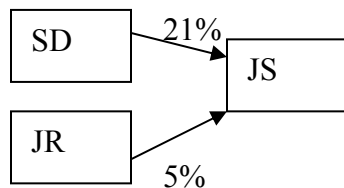


Figure 13 – The conclusion of H3

SD – JS relationship. The SD- JS relationship is consistent with Roessler’s (2002) 3M Model and Ironson & Smith (1981). When individuals with MR capitalize on their self-determination, they are able to solve unpredictable problems (Ironson & Smith, 1981). In the 3-M Model, the mastery component involves workers’ abilities to adjust to inevitable and unpredictable problems on the job. Resolving unexpected problems on the job requires self-determination skills to define problems accurately, generate feasible options, and implement the steps required to solve the problem. This self-determination skill of problem solving promotes job satisfaction as well job retention (Ironson & Smith, 1981).

PJC – JS relationship. Results indicated that PJC failed to demonstrate significant predictive relationship with JS that is inconsistent with the literature and the hypothesized job

retention model. Roessler (2002) purports a high correlation between job match or person-job congruency, and job satisfaction and quality of life satisfaction (Roessler & Rubin, 1998). One possible explanation for this inconsistency might be internal motivation of individuals with MR and their aim to please and do a good job no matter what the job is (Rosenberg & Brady, 2000). Additionally, the inconsistency may also be because supported employment is a controlled environment where workers with MR are placed on the job regardless of their interest in the job (PJC). Thus in a supported employment environment, the PJC-JS relationship is difficult to measure. Roessler (2002) does suggest further research is needed to understand if person-job fit is related to levels of job satisfaction. Since job satisfaction has also been associated with life satisfaction and mental and physical health (Balzar et al., 2000; Spector, 1997), improved satisfaction has become an important outcome of work.

Self-Determination – The Main Predictor of Important Work Outcomes (JR, JP, JS)

Given that SD is the main predictor variable of our hypothesized model it is now discussed in detail. Self-determination theory (SDT; Deci, 1992) is a general theory of human motivation concerned with the development and functioning of personality within social contexts. The theory focuses on the degree to which human behaviors are volitional or self-determined or the degree to which people endorse their actions at the highest level of reflection by engaging in the actions with a full sense of choice (Ryan & Deci, 2000). “To be self-determining is to engage in an activity with a full sense of wanting, choosing, and personal endorsement” (Deci, 1992, p. 44).

Self-determination is viewed as a fundamental human right to govern or direct one's life without unnecessary interference from others, and the focus on promoting self-determination in education has certainly been influenced by this empowerment focus (Deci, 1992). Documenting

the impact of self-determination on lives of individuals with disabilities helps to focus resources on this effort and to better understand how much self-determination contributes to educational and work goals to increase self-sufficiency, autonomy, and valued adult outcomes like employment, community integration, or independent living.

Opportunities to learn and practice skills related to self-determination for individuals' with disabilities are often limited because their intellectual capacity is underestimated by their co-workers, supervisors, and parents (Wehmeyer, Agran, & Hughes, 2000). While there is no doubt that intellectual ability contributes to one's capacity to become self-determined, intelligence level does not account for differences in self-determination (Wehmeyer & Bolding, 2001; Wehmeyer & Palmer, 2003; Wehmeyer & Schwartz, 1997). Levels of self-determination, autonomy, and life satisfaction, and opportunities to make choices depend on the type of environment: (a) community-based (e.g., independent living or competitive employment), (b) community-based congregate (e.g., group home or sheltered employment), and (c) non-community based congregate (e.g., institution or work activity program; Wehmeyer & Bolding, 2001). Persons similar in mean age and mean IQ scores have more adaptive levels on each measure if they live or work in non-congregate community-based settings (Wehmeyer & Bolding, 2001). Multiple variables that go beyond intelligence test scores should be considered to examine successful outcomes, including self-determination, for individuals with disabilities.

Self-Determination Theory (Deci, 1992) is based on the assumption that people are active organisms, with innate tendencies toward psychological growth and development, who strive to master ongoing challenges and to integrate their experiences into a coherent sense of self. These natural human tendencies do not operate automatically, but require ongoing supports from the social, educational, and work environment to function effectively. Each of these environments

can either support or thwart the natural tendencies toward active engagement and psychological growth. Given that this dialectic between the active organism and the environment serves as basis for SDT's predictions about work behavior, experience, and development (Deci, 1992), it should be a major focus of HRD and rehabilitation professionals. HRD and rehabilitation professionals are in the position to support the natural tendencies for workers with MR to master self-determination skills and professional growth.

Implications HRD and Vocational Rehabilitation

Contributions made by this study are that self-determination and person-job congruency are particularly relevant in predicting long-term employment, good job performance, and job satisfaction for people with MR. While vocational rehabilitation (VR) services encourage independent behavior and learning self-determination skills (Wehmeyer, 2001), HRD and organizations rarely provide services to address the training and development of these skills in workers with MR. Given similarities in the goals of both VR and HRD, there is a natural fit between these two disciplines regarding workers with MR.

A central goal of HRD professionals is to broaden understanding of the complex activities involved in assisting individuals and organizations to improve their abilities to develop themselves and others in the organization (McLean & McLean, 2001). HRD is any process or activity that has the potential to develop work-based knowledge, expertise, productivity, and satisfaction for individual or group gain or for the benefit of an organization, community, nation, or the whole of humanity (McLean & McLean, 2001, p. 313). HRD is comprised of four primary functions: training and individual development, career development, organizational development, and performance improvement (Gilley & Egglund, 1995). Similarly, vocational

rehabilitation focus on individual development through skill training and career counseling to enhance work performance and satisfaction.

Vocational rehabilitation (VR) offer individuals with mental or physical disabilities services that are designed to enable participants to attain skills, resources, attitudes, and expectations needed to compete, get and keep a job. Vocational rehabilitation services prepare qualified applicants to achieve a lifestyle of independence and integration within their workplace, family and local community (Wehman, 2001).

To ensure long-term employment, job satisfaction and good performance of workers with MR considerable planning and facilitation of their participation in the workforce should include coordination between HRD and VR. Areas to consider for individual and organizational performance improvement are: assessment and training for individual development and career development/counseling strategies that encompass person-job congruency and self-determination skill development

Individual Development

“Individual development refers to the development of new knowledge, skills, and/or improved behaviors that results in performance enhancement and improvement related to one’s current job (training)” (Gilley & Egglund, 1995, p. 15). While both HRD and VR professional uses training to provide new skills and knowledge, prior to training an assessment of current skills and behaviors must be conducted by the HRD or VR professional. Individual development is focused on individual assessment and training.

Assessment for individual development. The purpose of assessment is to give employees an opportunity to review the work they have accomplished; to identify and illuminate particularly successful activities, and to identify and define areas that need improvement (Cook

& Cripps, 2005). An individual assessment must be proficient in assessing a workers weakness as well as their strengths and interests. VR conduct assessment to identify transferable skills and job readiness (Rubin & Roessler, 1995). The ultimate end of the assessment process should be a set of goals that the supervisor and employee mutually agree upon for the subsequent period. Validation of the revised job retention model developed in this research could lead to the development of a diagnostic tool to assess performance and satisfaction of adult workers with MR. A diagnostic tool will allow HRD and rehabilitation professionals the ability to identify the strengths and limitations of workers with MR. This knowledge of the strengths and weakness of a worker with MR will allow for more focused training.

Training. Training includes learning that is provided in order to improve performance on the present job (Gilley & Egglund, 1995) or a method to stimulate individual change (Sredl & Rothwell, 1987). Training is also an experience or a regimen which causes people to acquire new, predetermined behaviors (Laird, 1978). Skill acquisition as a result of either formal education, vocational training, or on-the-job training is a significant employability and performance factor (Rubin & Roessler, 1995). While there are many descriptors of the training function the common denominator is that all pertain to a skill or knowledge necessary to do one's current job. Training that promotes self-determination can enhance workers' performance and promote their capacity to progress in the job that may enhance the overall organizational performance. HRD and VR professionals that help managers, supervisors, and co-workers teach individuals with MR self-determination strategies and goal-setting skills improves their critical learning skills and community involvement (Gilberts, Agran, Hughes, & Whemeyer, 2001; Gumpel, Tappe, & Araki, 2000; Woods & Martin, 2004). Give the similarities in goals and

objectives of HRD and VR professional, VR could provide assistance to HRD in both training and career development.

Career Development

Career development is an organized, planned effort comprised of structural activities or processes that advance employees within an organization and result in their optimal utilization (Gilley & Eggland, 1995). Similarly to person-job congruency, career development focuses on a strategic effort to create a balance between the individual's interests, values, skills, strengths abilities, abilities, and career aspirations (Leibowitz, 1987). Thus, career development should encompass person-job congruency strategies. HRD and VR professionals that provide career development strategies that encompass self-determined choices based on person-job congruency may assist workers with MR to perform better, be more satisfied on the job leading to long-term employment.

Career development is frequently equated with upward mobility which is a misconception that should be clarified. Organizational information regarding other opportunities for job movement should be shared and explored with worker with MR, such as job enrichment, job rotation, lateral moves, and realignment moves. VR professional can assist HRD professional in designing career development strategies that align a worker with MR in a lateral or realignment move versus termination.

To enhance workers with MR self-determination skills, career development should encompasses a career planning sub-component or career development. Career planning refers to individual processes and intent to meet individual needs (Gutteridge & Otte, 1983). Career planning programs should focus on enhancing the following competencies in workers with MR: self-appraisal and career exploration and career goal setting.

Both individual and career development strategies should encourage a natural supported environment. Natural support is any assistance from supervisors and co-workers that allow people to secure, maintain, and advance in a job of their choosing. This support corresponds to the typical work routines and social actions of other employees (Rogan, Hangner, & Murphy, 1993). Natural supports lead to two complementary outcomes for individuals with MR, extending individual competence and promoting social acceptance. Extending employee competence requires focus on co-workers teaching individual strategies that they can use to adapt to their roles as employees. Extended individual competence requires the use of procedures that promote acceptable work behaviors and performance. By extending employee competence, employees adapt to changing expectations for performance and increasing responsibilities and opportunities on the job.

Social acceptance is promoted in a work environment where employees with and without disabilities work together. HRD professional manage social acceptance by teaching workers the skills that enable them to be more self-determined, helping to facilitate more effective interaction with co-workers and the community.

This study provides HRD with the understanding of the importance of developing individuals with MR to be self-determined and allowing them to work at jobs that meet their interest and abilities, leading to better job performance, satisfaction, and longer employment of individuals with MR

Limitations and Direction for Future Research

This section identifies limitations of this study to guide future research. One limitation is the self-report nature of the instruments used in this study that creates the potential for common method variance to bias the results. The research design employed two different measurement

periods in an effort to control for common method bias. This time lag helped to control for several potential sources of common method bias, such as consistency motif, transient mood state, context effects, and demand characteristics (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). There is some evidence that these efforts may have been successful. For example, several of the observed relationships were non-significant, suggesting that an overall response bias does not account for the findings. Nonetheless, future research can benefit by including measures from a variety of sources, based on observational measures of co-workers and/or supervisors.

Secondly, those placed in supported employment are generally prescreened for good job performance and appropriate work-related behaviors. Since all participants were in a supported employment environment, a type I error could have occurred, rejecting the null hypothesis when it should have been accepted. Future research should include employees in a natural support setting to verify the results. Looking at the study's variables in two different environments, natural support and supported employment, may ascertain different results.

The effect of economic conditions was not tested. Other external factors (e.g., economic issues, level of support, and vocational transition) may have contributed to the job retention of individuals with MR. Thus, future research should include these external variables to add to the body of knowledge around workers with MR. A useful extension of this research would be a predictive model that includes not only proximal outcomes of job retention, like personal characteristics, but also distal outcomes such as economics and other work related issues such as support. Links between economical factors could be used to inform a JR model for workers with MR. The literature suggests links between various support strategies, such as natural supports of coworkers, outside job coach support, vocational support, and job retention. These support strategies could be examined as distal outcome variables of job retention.

Another limitation is the predictive research method. Correlational studies may show a direct relationship between two or more factors but cannot prove causation (Green, 1991). As this study is correlational, the research was unable to ascertain whether the various variables cause JR, JP, and JS. For example, there may exist a positive correlation between training/development initiatives and performance, but this does not imply a causal linkage. Training may increase employee motivation that, in turn, causes improved performance. If motivation is the key performance factor, other less costly means can be used to improve employee motivation. Nevertheless, the theoretical underpinnings of the model development and testing provided support for the study's results. Future research that includes a causal model will add to the body of knowledge.

The findings from this study support ongoing efforts to enhance self-determination in relation to more positive work outcomes. The next step in evaluating the impact of such efforts, in addition to replication of these findings, would be to examine longer term outcomes for workers with MR who receive specific interventions that promote self-determination, compared with those who do not receive similar work training experiences. Such an examination would provide the causal link between self-determination and positive outcomes missing in this study.

Conceptions of personality and motivational processes in persons with MR are only loosely related to theoretical models derived from mainstream psychology, virtually none of the available knowledge is based on any sustained systematic study of people with MR (Switzky, 1997). Prior, research on people with MR focused primarily with identifying the cognitive deficits rather than personal characteristics (Switzky, 1997). Despite the evidence that personality and motivational aspects are equally important to positive outcomes for people with MR, the importance of the level of intelligence remains over emphasized (Merighi, Edison, &

Zigler, 1990). More research needs to focus on providing evidence that IQ and life success are not as strongly correlated as previously presumed and de-emphasize the intelligence factor as the dominate determinant of positive outcomes for people with MR.

Self determination and person-job congruency has shown to predict long-term employment, good job performance, and job satisfaction for people with MR. Employment and successful job placement of individuals with disabilities has personal, economic, organizational, and societal benefits (Grossi, Schaaf, Steigerwald, & Mank, 2002). Successful work promotes gains in self-esteem, self-confidence, adds meaning to one's life, community tenure and integration, and overall quality of life (Wehmeyer & Palmer, 2003). Work produces the opportunity to contribute toward one's own financial independence, decreasing dependence for support from families and taxpayers (Anthony, 1994; Rosenberg, Cheyney, & Greenberg, 1991), creating new opportunities for community participation (Griffin, Rosenberg, Cheyney, & Greenberg, 1996). Organizations that include people with disabilities in their diversity programs increase their competitive advantage. As a large segment of the labor pool that is largely untapped, they add to the variety of viewpoints organizations need to be successful in bringing effective solutions to today's business challenges (Konig & Schalock, 1991). If approached with an open attitude, the results of employing individuals with disabilities can be mutually beneficial.

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