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EXPLORATORY STUDY OF THE FACTORS DETERMINING THE VOCATIONAL RECOVERY OF PEOPLE WITH PSYCHIATRIC DISABILITIES

Conducted by the Center for Psychiatric Rehabilitation, Boston University
Zlatka Russinova, Ph.D., Principal Investigator

Funded by the National Institute on Disability and Rehabilitation Research
Grant # H133G010113

FINAL REPORT

PROJECT OVERVIEW AND CONCEPTUAL BACKGROUND

The purpose of this project was to explore the factors that influence the capacity of people with psychiatric disabilities to overcome severe work dysfunction and achieve vocational recovery. Severe work dysfunction was operationalized as receipt of disability benefits due to a psychiatric disability. Vocational recovery was examined as an important aspect of recovery from serious mental illness and defined as regaining or acquiring competitive employment after the onset of a disabling psychiatric condition. Criteria for meeting the threshold for vocational recovery consisted in capacity to sustain competitive employment for at least two consecutive years, working at least six months per year and at least 10 hours per week (Russinova et al., 2002). For the purposes of this project, we introduced the terms of full and partial vocational recovery in order to distinguish between individuals with psychiatric disabilities who financially support

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themselves through successful employment (full vocational recovery) and those who receive disability income while sustaining part-time competitive employment (partial vocational recovery). For most individuals with psychiatric disabilities who experience severe work dysfunction, achievement of full vocational recovery is associated with discontinued receipt of disability benefits. Thus, we introduced the concept of readiness for financial self-sufficiency in an attempt to operationalize the capacity of individuals with psychiatric disabilities to outgrow reliance on disability benefits and become financially independent. We defined readiness for financial self-sufficiency among persons with psychiatric disabilities as a complex psychological state determined by the individual's integrated perception of the various facilitators and barriers to achieving financial sustenance through gainful employment and without the receipt of disability income. The project focused specifically at identifying the predictors of financial self-sufficiency among recipients of Social Security income (SSI/SSDI).

The project was designed as a two-phase exploratory study combining qualitative research methods and survey methodology so that the variables of interest are examined comprehensively and in-depth. The study was conducted with a total of 174 individuals who have met established criteria for vocational recovery based on their participation in the NIDRR funded study of sustained employment and who also reported receiving disability benefits due to mental illness either currently or in the past. The first phase consisted in an explanatory qualitative study of individuals who have achieved full or partial vocational recovery after experiencing a severe work dysfunction at some point in their lives. Semi-structured telephone interviews were conducted with 41 respondents who met criteria for either full or partial vocational recovery. The second phase of the

study consisted in the implementation of a mail survey instrument developed based on the findings from the first phase. One hundred sixty seven respondents who met criteria for either full or partial vocational recovery contributed to the second phase of the study.

Findings from this study distinguished among the factors that contribute to getting a job, the factors contributing to sustaining a job and the factors contributing to achieving financial self-sufficiency among individuals with psychiatric disabilities While findings about the first two types of factors influencing the process of vocational recovery expand existing relevant knowledge, our findings about the third type of factors associated with readiness for financial self-sufficiency in this population are entirely novel and initiate the understanding of a previously unexplored area of significant importance to rehabilitation practice and disability policies.

LITERATURE OVERVIEW

VOCATIONAL FUNCTIONING OF PEOPLE WITH PSYCHIATRIC DISABILITIES. Of the 4-5 million people with mental illnesses in the US, approximately 30% have a work disability and 18% receive Social Security disability benefits (Stoddard et al., 1998). Research data indicate that people with psychiatric disabilities have employment rates of 0-30 % depending on the particular population studied (Anthony et al., 1984; Dion & Anthony, 1987; Anthony et al., 1990; Spaniol et al., 1984;) and have lower employment rates and less successful employment outcomes than people with other disabilities (Andrews et al, 1992; Marshak, et al, 1990; NIDRR, 1993, 1997). Although the Americans with Disabilities Act has been in place since 1990, the employment rates of people with psychiatric disabilities have changed little. However,

there are some more hopeful findings. Harding and her colleagues (Harding et al., 1987a, b; Harding, et al, 1992; Harding & Zahniser, 1994) found that half to two-thirds of deinstitutionalized state hospital patients had improved or recovered from mental illness 20 to 30 years later, including having permanent employment. Several more recent studies also have highlighted the vocational accomplishments of people who have been disabled by mental illness (Botterbusch, 1999a, b, 2000; Ellison & Russinova, 2000; Russinova et al., 2002). For example, Russinova and colleagues (Russinova et al., 2002), in a longitudinal study of individuals meeting criteria for vocational recovery, reported that 80% of 109 respondents with schizophrenia worked continuously in the 2 years prior to baseline and, at baseline, were working an average of 35 hours per week with an average hourly wage of $13. These recent studies have begun to alter our understanding about the workforce participation of persons with severe mental illnesses by providing evidence that unskilled or episodic employment is not the only pattern of employment for these individuals and that a range of vocational outcomes is both possible and feasible.

Interest in vocational recovery, a relatively new term in psychiatric rehabilitation, has been growing in both the mental health and vocational rehabilitation fields. Harding and her colleagues used permanent employment to define recovery (Harding, et al., 1987 a, b; Harding, et al, 1992; Harding & Zahniser, 1994). Some more recent studies also have focused on the concept of vocational recovery among persons with mental illness. Krupa (2000) conducted a small qualitative study and identified three psycho-emotional tasks in the process of work recovery: accepting the disorder as part of life but not governing life; developing a strong work identity; and developing a balanced attitude that interprets work related problems as universal struggles with work. In another qualitative

study, Stewart (2000) found that return to work was prompted largely by financial concerns, that social support for returning to work came largely from family and program staff, and that fears about returning to work were related more to performance issues than to concerns about loss of entitlements. Tse and Yeats (2002) identified recovery from an acute illness phase and the goodness of fit between the individual and the job as the two main factors determining successful employment among persons with bipolar disorder. In a study using national survey data in Australia, Waghorn and Chant (2002) suggest four aspects of vocational recovery: current employment, durable employment (3 or more months of employment per year), work performance, and absenteeism from work. These authors (Waghorn, et al., 2003) have also examined the role of the self-reported course of illness as a predictor of the vocational recovery of individuals with schizophrenia. Consumers' perspectives on the negative impact of mental illness on employment were also explored by Honey (2003).

FACTORS ASSOCIATED WITH EMPLOYMENT OUTCOMES FOR PEOPLE WITH PSYCHIATRIC DISABILITIES. Factors associated with vocational outcomes have been identified in several reviews and meta-analyses of research findings, and in individual studies. In their early review, Anthony and Jansen (1984) identified prior employment, interpersonal/social skills, and ratings of ego strength and self-concept as the best predictors of future work performance among persons with psychiatric disabilities. A recent review of controlled studies (Tsang, et al., 2000) found pre-morbid functioning, work history, and social skills to be the strongest predictors of employment outcomes, while another review (Cook and Razzano, 2000) and an empirical study (Hoffman, et al, 2003) identified psychiatric symptoms, social skills, and neurocognitive

functioning as predictors of vocational functioning for individuals diagnosed with schizophrenia. A meta-analysis of published research (Wewiorski & Fabian, 2004) found younger age, Caucasian race, and diagnosis of affective disorder predictive of positive employment outcomes, and a diagnosis of schizophrenia predictive of poorer vocational outcomes. In a study designed to examine predictors of vocational recovery among 782 Australians with psychotic disorders, Waghorn and Chant (2002) found negative associations between durable employment (3 months/year) and deteriorating course of illness, family history of psychiatric disorder, cannabis abuse, schizophrenia diagnosis, lower educational level, older age, absence of a marital partner or significant other, and poor premorbid work adjustment. A recent study (O'Brien, et al., 2003) involving 1037 mental health consumers unemployed at baseline found younger age, previous employment, and bipolar disorder to be positively associated with improved vocational status over one year. Studies also have found associations between various vocational outcomes and age (Bybee, et al., 1995; Cook, et al., 2001; Mowbray, et al., 1995; Mueser, et al., 2001), work history (Anthony, et al., 1990; Arns & Linney, 1995; Carpenter & Strauss, 1991; Drake, et al., 1996; Goldberg, et al., 2001; Jacobs, et al., 1992; Marwaha & Johnson, 2004; Mowbray, et al., 1995; Mueser, et al., 2001, 2004; Regenold et al., 1999; Resnick et al., 2003), hospitalization history (Dion, et al., 1987; Farkas, et al., 1987), negative symptoms of schizophrenia (Bell & Lysaker, 1995; Beng-Choon, et al., 1998; Breier, et al., 1991; Green, 1996), schizophrenia diagnosis (Anthony, et al., 1995; Ciardiello, 1981; Massel, et al., 1990; Coryell & Tsuang, 1985; Fabian, 1992, Jacobs, et al., 1992; Tsuang & Coryell, 1993;), cognitive functioning (Evans, et al., 2004; McGurk & Mueser, 2003, 2004; McGurk, et al., 2003), with awareness and

attitudes toward one's own illness (Cunningham, et al., 2000), with certain coping skills/strategies (Alverson, et al., 1995; Cunningham, et al., 2000; Dorio, et al, 2002), with perceived competence (Juvonen-Posti, et al., 2002), with social interaction at work (Banks, et al., 2001), with job satisfaction (Dorio, et al., 2002; Xie, et al., 1997), and amount of disability income (Drew, et al., 2001; Resnick, et al., 2003). Although some studies show an association between symptoms and vocational outcome, there also is evidence suggesting that the experience of psychiatric symptoms does not prevent successful employment (Harding, 1996; Russinova, et al., 2002; Strauss & Carpenter, 1974).

Recent advances in psychotropic medications (Bond & Meyer, 1999; Liberman & Phipps, 1987) and the trend toward shorter hospitalizations have affected the level of psychosocial functioning in this population (Coursey, et al., 1997) and also may have affected their capacity to work. Although medication side effects and fear of relapse (Scheid & Anderson, 1995), as well as negative effects of ineffective programs (Rutman, 1994) can present barriers to employment, a growing number of studies on supported employment are establishing it as an evidence-based practice for persons with psychiatric disabilities (Bond, 2004; Bond, et al., 2001). A recent meta-analysis of randomized controlled trials found a large (.79) mean effect size in favor of supported employment over conventional vocational rehabilitation (Twamley, et al., 2003). A large multi-site study has examined the relative effectiveness of different models of vocational rehabilitation (Cook, et al., 2005).

Despite the multitude of studies examining the factors impacting the employment outcomes of people with psychiatric disabilities, still little is known about the barriers and

facilitators of long-term competitive employment in this population.

SOCIAL SECURITY BENEFITS AND EMPLOYMENT. The Social Security disability benefits system poses many disincentives to employment for people with disabilities in the application process, maintenance on the rolls, and the impact of earnings on disability income and associated health insurance. The application process requires individuals with disabilities to identify themselves and to have professionals confirm that they are unable to work, creating emotional and psychological barriers to working (MacDonald-Wilson, 1999). Estroff and her colleagues (1997) describe this process as one that is both enabling and disabling: while applying for benefits may provide some financial relief, it also hastens or ends any efforts to engage in rehabilitation. Cynthia Fagnoni, of the U.S. General Accounting Office, testifying at a hearing before the House Subcommittee on Social Security, asserted that the disability determination process encourages work incapacity (106th Congress, 1999).

Of those who complete the application process and are awarded benefits, people with mental disorders comprise nearly 32% of all SSI recipients and 25% of all SSDI beneficiaries (SSA, 2000). Recent data also suggests that the numbers of people with mental illness receiving benefits is increasing, primarily on SSI due to the large enrollment in the last decade of children with disabilities, two thirds of them who are diagnosed with a psychiatric disorder. People with mental disorders also have the longest duration on disability benefits (Rupp & Scott, 1996).

Recent estimates have reported little change in the numbers of people leaving the disability rolls due to "work recovery" – ranging from 0.5% for SSDI beneficiaries engaged in the state-federal VR system (National Academy of Social Insurance, 1994), to

3% of all SSDI beneficiaries (Muller, 1992). Up to one third of those who leave the rolls return. Hennessey (1996) reported in a New Beneficiary Follow up study (a selected sample of those enrolled since 1972) that approximately 12 % of SSDI beneficiaries attempted work after entitlement, and 24% of them terminate benefits due to recovery (either medical or work recovery). It appears that less than 3% of the original sample left the rolls due to working at what SSA calls substantial gainful activity level. Information on type of disability is unknown for this group, although Muller (1992) reported that people with mental disorders were less likely than any other group to leave the SSDI rolls due to work, and if they left the rolls, they were more likely to reapply. In other studies, a smaller percentage of SSI recipients with mental disorders left the rolls due to earnings compared to those with other disabilities (Rupp & Scott, 1996), and at any given time, only 6% of people receiving SSI are working (SSA, 2000).

Many who have studied these issues have focused on the complications inherent in the work incentive rules which are complex and difficult to understand for the typical person (NASI, 1994; MacDonald-Wilson, 1999), especially since the rules governing SSI are completely different from those for SSDI. A study of mental health consumers participating in psychosocial rehabilitation programs revealed that few knew what these work incentive rules were, and for most, their concerns about the work incentives resulted in being somewhat to completely reluctant to work (MacDonald-Wilson & Ellison, in preparation). Those working at least part time were more knowledgeable and more confident about the work incentive rules than those who were not working. Concern about health insurance coverage has also been identified by others as one of the major barriers to work (105th Congress, 1997; 106th Congress, 1999; NIDRR, 1993; Sim,

1999). A recent qualitative study of the impact of federal disability programs on the employment of persons with psychiatric disabilities identified that these programs often hinder rather than support the process of vocational recovery (O'Day & Killeen, 2002). Identified challenges associated with existing disability benefits provisions took the form of income and medical benefits loss, denial of education, and placement in the most menial jobs without reference to the individual's preferences and skills. Given the problems inherent in the Social Security disability benefits system, it is unclear what factors facilitate moving toward work recovery or financial self-sufficiency among Social Security recipients who have a mental illness.

READINESS FOR FINANCIAL SELF-SUFFICIENCY. Given the importance of understanding the client factors which predict good outcomes, and our meager comprehension of it at present, Anthony (1994) and other researchers (Prochaska et al., 1992) have suggested that we should examine the factors related to the ability or readiness to change (Cohen & Mynks, 1993; McHugo, et al., 1995). A recent study using a profile of Cohen et al.'s (1997) readiness factors found that higher readiness was associated with greater participation in a rehabilitation program for people with severe mental illness (Smith, Rio, Hull, Hedayat-Harris, Goodman & Anthony, 1998). The concept of readiness for change has been examined in the context of Prochaska's transtheoretical model of change (Prochaska & DiClemente, 1982; Prochaska et al., 1992) and includes 5 stages of change: Precontemplation, Contemplation, Preparation, Action and Maintenance. However, only recently has the readiness for change of people with severe psychiatric disorders been the focus of scientific inquiry (Hillburger & Lam, 1999; Rogers, et al, 2001) but no data exist about the relationship between readiness for

change and later work recovery.

In the context of this study, we introduced the concept of readiness for financial self-sufficiency in an attempt to operationalize the capacity of individuals with psychiatric disabilities to outgrow reliance on disability benefits and become financially independent. We defined readiness for financial self-sufficiency among persons with psychiatric disabilities as a complex psychological state determined by the individual's integrated perception of the various facilitators and barriers to achieving financial sustenance through gainful employment and without the receipt of disability income. We considered individuals who already left the disability rolls to be in the Maintenance stage of Prochaska's transtheoretical model of change, those who intent to leave the disability rolls in the immediate future to be at the Preparation stage, those who intent to leave the disability rolls sometime in the future to be in the Contemplation stage, and those who do not plan to leave the disability rolls in the future to be in the Precontemplation stage of change.

OPERATIONALIZATION OF THE CONCEPT OF VOCATIONAL RECOVERY. In the context of this study we have defined vocational recovery as the attainment of a specific threshold of sustained competitive employment in the process of preserving, regaining, or acquiring employment after being affected by a serious mental illness (Russinova, et al., 2002). Our conceptual model of vocational recovery includes specific thresholds for two dimensions of workforce participation: stability and scope. Stability of workforce participation refers to a person's capacity to sustain competitive employment over time and is operationalized by months of competitive employment per year. We have set the recovery threshold for stability at six months of competitive employment per year.

Scope of workforce participation relates to the amount of time spent working and is operationalized by the number of work hours per week. We have set the recovery threshold at ten hours per week, a level consistent with Social Security Administration requirements for a trial work period (SSA, 1995). Although working only ten hours per week might appear low for a recovery threshold, we believe that when the criterion for stability also is met, this level of intensity does constitute a realistic measure vocational recovery.). For the purposes of this project, we introduced the terms of full and partial vocational recovery in order to distinguish between individuals with psychiatric disabilities who financially support themselves through successful employment (full vocational recovery) and those who receive disability income while sustaining part-time competitive employment (partial vocational recovery). For most individuals with psychiatric disabilities who experience severe work dysfunction, achievement of full vocational recovery is associated with discontinued receipt of disability benefits.

METHODOLOGY

SAMPLE

The population of interest for the current study included individuals with serious mental illness who at some point in their lives received disability benefits because of severe work dysfunction. Since psychiatric disability can be related to a variety of psychiatric diagnoses (Goldman et al., 1981), we do not specify diagnosis of a particular illness (i.e., schizophrenia) as a fixed descriptor of this population. However, for the purposes of the analysis and the interpretation of the gathered empirical data, we take into account participants' self-reported DSM-IV psychiatric diagnosis.

All study participants were recruited from the existing participants in our longitudinal study on sustained employment who reported past or current receipt of disability benefits due to their mental illness. At the time of recruitment for this study, we identified 266 active participants in the longitudinal sustained employment study who reported receiving disability benefits due to mental illness at some point of their lives. We mailed to all these individuals a package containing a cover letter explaining the purpose and the nature of the proposed study, an informed consent form, the Disability Benefits Screening Form we developed for the purposes of this study, and a stamped return envelope. Of them, 220 expressed interest in the study. Upon review of the data from completed Disability Benefits Screening Forms, we established that 7 of them were not eligible for the study because they reported not ever receiving cash benefits due to a psychiatric disability. Thus, we enrolled 213 individuals who met established inclusion criteria.

By virtue of their enrollment in the longitudinal sustained employment study, all 213 individuals met the following criteria: 1) having a lifetime presence of a serious mental illness, and 2) being able to sustain competitive employment. The criteria for having a lifetime presence of a serious mental illness included: a) having received disability benefits (SSI, SSDI, VA, RSDI, etc.) because of a serious mental illness; b) being hospitalized for psychiatric reasons at least once, and c) experiencing interruptions in the ability to work or a negative impact of the psychiatric condition on their work performance. Given the specific eligibility criteria of the vocational recovery study, all 213 individuals met all three criteria for presence of a serious mental illness. The criteria for sustained competitive employment included: a) a total of at least 12 months of

employment in the two years prior to recruitment; b) at least six months of continuous employment at one job for the last year prior to recruitment, and c) presence of competitive employment at the time of recruitment in the longitudinal study. Competitive employment includes self-employment; however it is defined based on the Social Security requirements regarding trial work period, namely $200 earned income or working 40 hours per month. In addition, since the longitudinal study focuses on independent competitive employment, individuals who received supports on the job were not eligible for the study. Given the threshold we have established for the scope of workforce participation dimension of vocational recovery (Russinova et al., 2000), only individuals who worked at least 10 hours per week were eligible.

Based on the analysis of data collected through the Disability Benefits Screening Form, we identified the following groups of study participants based on the type of their past and current disability benefits:

1) past SSI benefits (n=23)
2) past SSDI benefits (n=44)
3) past SSI/SSDI benefits (n=28)
4) past and current SSI benefits (n=8)
5) past and current SSDI benefits (n=43)
6) past and current SSI/SSDI (n=23)
7) past long-term disability insurance (n=8)
8) past and current long-term disability insurance (n=3)
9) past short term disability insurance (n=18)
10) past and current VA benefits (n=10)

11) other past disability benefits (n=5)

Given that receipt of Social Security disability benefits is based on stringent criteria for work dysfunction, we selected participants for the first qualitative phase of the study only among the past and current recipients of Social Security benefits. We initially hypothesized that the type of the disability benefits would have a primary influence on respondents' thinking and decisions to exit the disability rolls since the type of disability benefits represents a proxy measure of the severity of the individual's disability (i.e., recipients of SSI benefits tend to have earlier illness onset and more limited work history) and is also governed by different regulations. Thus, we recruited participants for the first qualitative phase of the study only among each of the first six groups of respondents listed above when attempting to diversify as much as possible based on psychiatric diagnosis, gender and race. We interviewed a total of 42 respondents of whom 22 have left the disability rolls (full vocational recovery) and 20 were still receiving disability benefits (partial vocational recovery). The trustworthiness of the data collected from one respondent with partial vocational recovery was questionable and hence excluded from the analysis. Of the 41 respondents who contributed to the first phase of the study, 68% were female, 90% were white, 27% reported having a schizophrenia spectrum disorder, 44% - bipolar disorder, 24% - major depression, and 5% - a trauma related disorder.

Once the Vocational Recovery Survey instrument was developed based on findings from the first phase of the study, it was mailed to all 213 individuals who originally enrolled in the study. Of them, 167 individuals returned a completed survey. We followed the Dillman Total Design Method (1978, 2000) for mail questionnaires in prompting the study participants who did not return the survey within six weeks. We sent two prompt

letters. The second prompt included a new copy of the survey instrument to facilitate completion. Seven respondents who participated in the first phase of the study did not complete the survey instrument.

Of the 167 respondents who contributed to the second phase of the study, 77% were female, 95% were white, 27% reported a diagnosis of a schizophrenia spectrum disorder, 46% - bipolar disorder, 21% - major depression, and 6% - other psychiatric diagnosis. Fifteen percent of all study participants reported having a history of trauma and 59% - having a physical co-morbidity.

DATA COLLECTION METHODS AND INSTRUMENTS

INITIAL SCREENING FOR RECIEPT OF DISABILITY BENEFITS. For the purposes of this study, we developed a Disability Benefits Screening Form to inquire about past and current receipt of disability benefits due to mental illness (a copy is enclosed in the appendices). The form also inquired about the specific type of disability benefits received by study participants.

PHASE ONE. We developed separate interview guides for conducting the in-depth semi-structured interviews with respondents with partial and full vocational recovery (copies are enclosed in the appendices). Modified abbreviated versions of these interview guides were developed and sent to respondents upon scheduling a telephone interview in order to help them prepare for the interview.

PHASE TWO. Based on the findings from the first phase of the study, we developed a survey instrument to gather information from the whole study sample about the factors that influence the unfolding of their vocational recovery process (a copy of the

survey is enclosed in the appendices). In developing this survey instrument, we placed a special emphasis on identifying the predictors of financial self-sufficiency. The survey is composed of: a) open-ended questions inquiring about the factors that influenced respondents' transition from work dysfunction to the consecutive stages of vocational recovery, b) closed either dichotomous or Likert-type questions that we developed to assess variables that were hypothesized to be associated with financial self-sufficiency, and c) standardized scales measuring psychological constructs that qualitative findings from the first phase of the study suggested might be associated with financial self-sufficiency. We included the following standardized scales: a) Behavior and Symptom Identification Scale (BASIS-32) (Eisen, et al., 1994) which measures five different aspects of mental stability and psychosocial functioning, b) the Work Motivation Scale (Pickett, et al., unpublished manuscript) which measures work motivation specifically among persons with psychiatric disabilities; c) two subscales of the Proactive Coping Inventory (Greenglass, et al., 1999) which measure proactive and preventive coping styles; d) the Work Locus of Control Scale (Spector, 1988); e) the Connor- Davidson Resilience Scale (Connor & Davidson, 2003) which measures resilience among psychiatric populations; f) the Motivational Sources Inventory (Barbuto & Scholl, 1998) which measures five different sources of motivation to work, g) the Decision Behaviour Questionnaire (Radford, et al., 1993) which measures four different decision making styles and the level of the person's decisional self-esteem. Demographic questions were not included in this survey since this information was available to us based on respondents' participation in the longitudinal study on sustained employment. Dillman's (1978; 2000) methods were used to develop an attractive survey.

DATA ANALYSIS METHODS

QUALITATIVE METHODS. Two types of qualitative approaches, relying on the NVivo Qualitative Software, were implemented for the analysis of data gathered through the in-depth telephone interviews and the open-ended questions of the Vocational Recovery Survey instrument. First, we used qualitative methods relevant both to the within-case analysis and to cross-case analysis especially of data gathered through the in-depth interviews (Miles & Huberman, 1994). At the initial stages of data analysis, we gave priority to the explanation-building strategy of within-case analysis (Yin, 1989) which allowed us to understand the uniqueness of each case while later we gave priority to the cross-case analysis which allowed us to conceptualize the role different factors play in the vocational recovery process. Second, we used the principles and techniques the Grounded Theory method of qualitative analysis (Strauss & Corbin, 1998) which is recognized as the most appropriate technique for building a theoretical model on the basis of empirical data about a given phenomenon.

QUANTITATIVE METHODS. All analyses were performed using SPSS 13.1 or SAS 8.2 First, descriptive statistics and frequencies were obtained. Univariate analyses were performed, using linear regression or generalized linear models for the continuous outcomes and logistic regression for the dichotomous outcomes. Then, multivariate analyses were performed, using stepwise linear regression with a cut-off of 0.15 for continuous outcomes, or stepwise logistic regression with the cut-off of 0.15 for the dichotomous outcomes. The independent variables were grouped according to their clinical significance, and the multivariate analyses were first performed within each group. Those variables that remained significant were included in the overall multivariate

analysis. Finally, path analysis using multiple regression modeling was used to assess the relationships between different variables in the conceptual model predicting financial self-sufficiency among persons with psychiatric disabilities who were recipients of Social Security benefits. Once this model was established, it was used to establish predictors of readiness for financial self-sufficiency among current recipients of Social Security benefits. It was also used to predict the duration of receiving benefits prior to exiting the disability rolls.

RESULTS AND DISCUSSION

DEMOGRAPHIC, CLINICAL, VOCATIONAL AND BENEFITS PROFILE OF STUDY SAMPLE

This study was conducted with a very unique sample of individuals with psychiatric disabilities who experienced a severe work dysfunction after the onset of their mental illness but later were able to recover their ability to work and achieved either partial or full vocational recovery. The majority of study participants who contributed to the second phase of the study (82%) were either past or current receipt of Social Security disability benefits due to mental illness. Among them, we distinguished among those who left the disability rolls (n=69), those who are still on disability rolls after achieving partial vocational recovery at some point after the onset of their mental illness (n=54), and those who left the disability rolls in the past but went back on disability and are currently recipients of Social Security benefits again (n=14). Among the respondents (n=30) who reported past or current receipt of other disability benefits due to mental illness, we distinguished the same three groups: those who no longer receive disability benefits

(n=20), those who continue to receive disability benefits (n=9), and those were off but later resumed again receipt of disability benefits (n=1). The demographic, clinical, and vocational characteristics for each of the first five groups are presented in Table 1 while Table 2 provides detailed information about a) the different kinds of additional financial resources available for current recipients of Social Security benefits and b) the additional financial resources that were available to past Social Security benefits recipients prior to leaving the disability rolls.

-- Insert Table 1 here –

-- Insert Table 2 here --

Since the group of respondents who left the Social Security disability rolls due to gainful employment is of primary interest for this study, we examined more closely their patterns of benefits receipt as well as time of sustained financial self-sufficiency after exiting the disability rolls. We examined a great variation in the duration of Social Security disability benefits receipt in this group: Of the 67 respondents who provided data about the duration of their benefits, 8% had them for less than one year, 13% received benefits between 12 and 24 months, 30% - between 2 and 5 years, 28% - between 5 and 10 years, 12% - between 10 and 15 years, and 9% - over 15 years. These findings are very important because they emphasize the possibility of individuals with psychiatric disabilities to achieve financial self-sufficiency even after very prolonged periods of work dysfunction.

We also examined the duration of sustained financial self sufficiency after exiting the disability rolls. Again, the results varied to a great deal: 3% had sustained financial self-sufficiency for less than a year, 5% - between 12 and 24 months, 15% - between 2

and 5 years, 51% between 5 and 10 years, 15% - between 10 and 15 years, and 11% - for more than 15 years. Clearly, these individuals have maintained a very stable vocational functioning after exiting the disability rolls, including the individuals who were on the disability rolls for more than 10 years. For example, half of the respondents who were on the rolls for more than 15 years have sustained financial self-sufficiency between 2 and 5 years while the other half – between 5 and 10 years.

Presented data about the demographic, clinical and vocational profile of the different groups of respondents who contributed to this study allow some emerging differences between the recipients of Social Security benefits and the recipients of other disability benefits to be identified since we conducted the statistical analyses pertinent to predictors of financial self-sufficiency only with the respondents classified in the first two groups described in Table 1. It seems that when compared to recipients of Social Security disability benefits, a lower number of recipients of other disability benefits tend to be single, to have a schizophrenia spectrum disorder, to have a lower number of lifetime psychiatric hospitalizations, and to have received vocational rehabilitation services. Another interesting observation is about the respondents who were off and later back on Social Security benefits: the majority of these individuals reported a diagnosis of bipolar disorder and also the highest rate of history of substance abuse. Given the very small end of this group of respondents, this clinical observation needs to be taken into account with great caution. However, at the same time it raises an important question about the susceptibility of people with bipolar disorder to both higher level of vocational success but also to greater fluctuations in their mental stability that might compromise the vocational recovery process.

FACTORS INFLUENCING VOCATIONAL RECOVERY

The first major goal of the study consisted in identifying the multitude of factors that influence the vocational recovery of people with psychiatric disabilities. Using the Grounded Theory method of qualitative analysis, we analyzed the data collected through the in-depth interviews administered during the first phase of the study and through the relevant open-ended questions of the survey that we administered during the second phase of the study. We used three different principles to categorize the factors that impact the vocational recovery process of people with psychiatric disabilities: a) the valence of the factor (i.e., positive versus negative impact); b) the stage of the vocational recovery process; and c) the nature of a given factor. From the point of view of the factors' valence, we differentiated between facilitators and barriers to the vocational recovery of people with psychiatric disabilities. From the point of view of the stages of the vocational recovery process, we distinguished among factors relevant to: a) return to work; b) partial vocational recovery (sustaining part-time employment while continuing to receive disability benefits), and c) full vocational recovery (exiting the disability rolls due to gainful employment). Based on the nature of the factors influencing vocational recovery, we distinguished the following eight categories of factors: a) functional – relevant to the person's psychological and physical functioning; b) motivational – personal needs, preferences and experiences influencing the person's decisions in regards to vocational recovery; c) dispositional – more stable personal characteristics, attitudes and values guiding choices about work and lifestyle; d) treatment/services related – factors relevant to the person's use of mental health and rehabilitation services; e) vocational – factors relevant to the person's work history, vocational skills and preferences, to the work

environment and job-person fit; f) support related – factors relevant to different sources of social and spiritual support; g) resources – factors relevant to the availability of financial resources beyond disability benefits; and h) disability benefits provisions – factors related to the type of disability benefits and corresponding regulations. Based on a re-iterative coding process, we developed codes for the specific facilitators and barriers reported by study participants for each of the above eight content areas as corresponding to each stage of the vocational recovery process. The content-specific facilitators for the three stages of vocational recovery are presented in Table 3 while the content-specific barriers are presented in Table 4. Findings presented in these two tables are based entirely on collected qualitative data and do not reflect further conceptual elaborations that would compensate for the limitations of this qualitative dataset. For example, in this study improved coping capacity was reported only as a factor influencing the transition to financial self-sufficiency while this factor can be conceptualized as relevant to all three stages of the vocational recovery process. Existing limitations in the comprehensiveness of presented findings are due to the exploratory nature of the study that guided the choice of semi-structured in-depth interviews and open-ended survey questions. Reported findings, however, are expected to inform the design of assessment instruments for use in future quantitative studies that would validate the relevance of presented data to different stages of the vocational recovery process.

-- Insert Table 3 here –

-- Insert Table 4 here --

Our findings outline a very wide range of factors that might have either a beneficial or restrictive influence on each stage of the vocational recovery process of people with

psychiatric disabilities. While many factors were only stage specific, some factors emerged as pertinent to all three stages of the vocational recovery process. The key facilitators of the overall vocational recovery process were mental stability achieved through consistent use of psychiatric medications, psychotherapy, spirituality and the support of mental health providers and family, ability for efficient self-regulation, determination to work, personal drive, resilience, work-related self-confidence, new professional training, employment requiring consumer status, career change, and good job-person fit. At the same time, the barriers to vocational recovery that were reported by study participants across all three stages of the recovery process were only fluctuating psychiatric symptoms and negative experience with a previous job loss. Not surprisingly, these findings emphasize the primary importance of mental stability as a prerequisite for successful employment: while mental stability is essential for engaging on a path of vocational recovery, fluctuating or reoccurring psychiatric symptoms are the major impediment of the vocational recovery process. Once certain level of mental stability is achieved, above listed motivational, dispositional, support and vocational factors come into play and promote the person's readiness to work and consequently, return to work, partial and ultimately full vocational recovery. Factors related to the availability of additional financial resources and especially the disability benefits provisions appear to be relevant exclusively to the transition from partial to full vocational recovery. In an attempt to integrate our findings about the stages of the vocational recovery process with the key factors that influence each stage, we developed a conceptual model representing the unfolding of the overall process of vocational recovery. This model is graphically presented at Figure 1 (see appendices).

-- Insert Figure 1 here --

This model depicts the process of vocational recovery of people with psychiatric disabilities as a gradual transition from work dysfunction to sustained employment and exit of the disability rolls. Return to work is the first very important step in the vocational recovery process requiring the development of readiness to work. While the achievement of relative mental stability is a pre-requisite determining return to work, the enhancement of work motivation and the rebuilding of vocational confidence are essential components of the person's readiness to get a job. Volunteering, professional training through formal education, certificate and community programs, internships and involvement in consumer movement initiatives appear to be the main avenues through which people with psychiatric disabilities gain new skills and work experience that enhance their vocational confidence and readiness to get a job. For individuals with vocational attainment in a given professional area prior to experience a severe work dysfunction, a career change is a key factor for achieving a better fit between their functional capacity and job interests and preferences. Often initial return to work is a combination between the person's active search for a job and a job opportunity that arises with the help of current or former mental health and/or rehabilitation providers or of family members. Many individuals, who volunteer as part of developing their readiness to work, acquire a job at the setting where they volunteered. Upon return to work, the major challenge for people with psychiatric disabilities consists in handling the stress associated with the job requirements as well as with the formal and informal interactions at the specific work environment while still experiencing psychiatric symptoms and/or side effects of psychiatric medications. While a supportive and accommodating work environment facilitates employment sustenance, a

key factor in this respect is the capacity for effective work self-regulation. Work self-regulation consists in the ability to evaluate adequately personal resources as well as limitations and to plan and pursue work activities and tasks in a way that is manageable for the person and that does not compromise the person's mental stability. Once employment is sustained either at part-time or full-time level (i.e., during the work trial period), it impacts positively the person's vocational confidence. For many individuals this level of vocational recovery is associated with a desire to discontinue receipt of disability benefits. While the availability of additional financial resources and accounting for the provisions of the specific types of disability benefits influence the decision making process of pursuing financial self-sufficiency through gainful employment, determination to achieve financial independence, resilience, work motivation and effective coping strategies are essential in this respect. Effective work self-regulation remains key in the maintenance of financial self-sufficiency since compromised mental stability can spin people back on the disability rolls. This conceptual model provides a systematic understanding of the stages of the vocational recovery process and the interaction of the key factors influencing each stage. This model represents a conceptual tool that can inform the design of innovative interventions that can further enhance the vocational recovery of individuals with psychiatric disabilities.

PREDICTORS OF FINANCIAL SELF-SUFFICIENCY

The second major goal of the study focused on identifying predictors of financial self-sufficiency among people with psychiatric disabilities. As previously explained, we operationalized achievement of financial self-sufficiency based on the person's ability to exit the disability rolls due to gainful employment. While addressing the first major goal

of the study, we outlined a wide range of factors that might influence the transition of persons with psychiatric disabilities from partial to full vocational recovery. In addressing the second major goal of the study, we focused on identifying the key factors influencing achievement of financial self-sufficiency that have a predictive power and thus, distinguishing between potential and predictive factors of financial self-sufficiency. The statistical analyses of predictors of financial self-sufficiency among persons with psychiatric disabilities who experienced work dysfunction at some point after the onset of their mental illness, focused only on study participants who were current or former recipients of Social Security cash benefits. We made this choice in order to diminish the impact of variability in disability determination and hence, presence of work dysfunction. In addition, these findings were considered of utmost relevance to both the Social Security Administration and various vocational rehabilitation agencies serving primarily clients with psychiatric disabilities who are recipients of Social Security benefits. To improve the accuracy of the predictive model we also excluded from the analyses the group of respondents (n = 14) who at some point discontinued receipts of Social Security cash benefits, however later resumed receipt of Social Security benefits and at the time of the study were still receiving such benefits. While the mixed status of this group illustrates well the cyclical nature of psychiatric disabilities and calls for more flexibility in Social Security return provisions, it would have also obscure findings from conducted analyses.

Given the lack of previous research exploring predictors of disability benefits discontinuance, we tested a large set of independent variables for association with the outcome variable of financial self-sufficiency achieved by recipients of Social Security

cash benefits. In the context of this study, we equated achievement of financial self-sufficiency with achievement of full vocational recovery. We included in the primary regression analyses predicting financial self-sufficiency the following sets of independent variables: a) demographics (age, gender, race, marital status, and education); b) clinical variables, including diagnostic variables (primary psychiatric diagnosis, trauma history, substance abuse history, and physical co-morbidity), overall psychological functioning (total score and subscales of the BASIS-32 instrument), mental health history (age of symptoms, age of diagnosis, number of psychiatric hospitalizations, and age of first psychiatric hospitalization), proactive coping (two subscales of the Proactive Coping Inventory), resilience, and decision making styles (five subscales of the Decision Behavior Questionnaire); c) job characteristics, including occupational status and type of occupational setting; d) work motivation variables, including level of work motivation, work locus of control, sources of work motivation (five subscales of the Motivation Sources Inventory), work as part of identity, positive and negative impact of work on the person's functioning, fear of losing job in the future, and fear of not being able to work in the future due to mental illness; e) work history variables (prior work before the onset of the mental illness, length of work before illness onset, length of job tenure before illness onset, and use of vocational rehabilitation services), f) financial resources and benefits variables, including availability of additional financial resources and type of disability benefits; and g) work values variables (eight variables describing different work values).

Results from the multiple stepwise regression showed that ability to achieve financial self-sufficiency and exit the Social Security rolls was significantly related to the person's occupational status (p=0.0010), to the person's level of proactive coping style

(p=0.0132), and to the presence of a physical co-morbidity (p=0.0093). Those with higher occupational status and higher level of proactive coping style were more likely to achieve financial self-sufficiency through gainful employment and leave the disability roll. Those with a co-existing physical condition were more likely to remain on the Social Security rolls. The overall model was statistically significant with an acceptable level of the c-statistic for multiple logistic regression modeling (c=0.836).

Given that very limited number of predictors remained in the final model while several more variables were significantly associated with financial self-sufficiency at the univariate level, we decided to expand the development of the conceptual model through the examination of the predictive pathways associated with each of the three main predictors of financial self-sufficiency. Each of these predictors was treated as a dependent variable at the secondary level of model building. We identified a subset of independent variables for each of these three predictors. The variables in each subset were conceptualized as having the potential to be associated with the relevant predictor. The subset for occupational status included all demographic variables, selected clinical, work motivation and work history variables, and the occupational setting variable; the subset for proactive coping included most variables tested in the primary predictive model with the exception of physical co-morbidity, job characteristic variables and financial resources and benefits variables; finally, the subset for physical co-morbidity included demographic and selected clinical variables.

Results from the multiple regression for occupational status showed a significant association only with education (p=0.0044). Those with higher level of education were more likely to have higher educational status. Physical co-morbidity was associated only

with level of resilience (p= 0.0405). Those experiencing physical co-morbidity tended to have lower level of resilience. In turn, the predictive model for proactive coping style generated the most interesting findings. Proactive coping was significantly associated with gender (p=0.0353), age (p=0.0124), work motivation (p=0.0175), resilience (p=0.0001), avoidant decision making style (p=0.0335), and impulsivity (as measured by the corresponding subscale of the BASIS-32 instrument) (p=0.0338). Females, younger individuals and those with higher level of work motivation and resilience tended to have higher levels of proactive coping. Conversely, those with higher levels of avoidant decision making and impulsivity tended to have a lower level of proactive coping. The overall model predicting proactive coping was statistically significant and explains 71.1% of the variance in the outcome variable (F=45.51, df=(6, 111), p<0.0001, R-squared=0.7110).

We expended the development of the conceptual model of financial self-sufficiency to a tertiary level of pathways building through the examination of predictors for the variables that were significantly associated with proactive coping with the exception of gender and age. Again, we treated work motivation, resilience, avoidant decision making style, and impulsivity as dependent variables to be predicted by subsets of relevant independent variables. The subset for work motivation included all demographic variables, selected clinical variables, all remaining work motivation variables and all variables relevant to work values; the subset for resilience included demographic and diagnostic variables and age of first experiencing symptoms; the subsets for both avoidant decision making and impulsivity included only demographic and diagnostic variables.

The results from the multiple regression predicting level of work motivation as measured by the Work Motivation Scale showed a significant association of work motivation with race ($p=0.0195$), work locus of control ($p=0.0046$), resilience ($p=0.0001$), positive impact of work on the person's psychosocial functioning (0.0011), negative impact of work on the person's psychosocial functioning ($p=0.0092$), and having a satisfying personal style as a value ($p=0.0039$). Whites, individuals with internal work locus of control, higher level of resilience and experiencing positive impact of work on their psychosocial functioning tended to have higher levels of work motivation. At the same time, individuals experiencing a negative impact of work on their psychosocial condition and endorsing strongly having a satisfying personal life as a value tended to have lower levels of work motivation. The overall model was statistically significant and explains 56% of the variance in the outcome variable ($F=15.43$, $df=(8, 97)$, $p<0.0001$, R-squared=0.5600).

The only predictors of resilience were psychiatric diagnosis ($p=0.0014$) and the overall level of psychosocial functioning as measured by the total score of the BASIS-32 instrument ($p \leq 0.0001$). Those with a diagnosis of major depression and higher level of overall psychosocial functioning tended to have higher levels of resilience. The overall model was statistically significant and explains 42.73 % of the variance in the outcome variable ($F=29.60$, $df=(3,119)$, $p<0.0001$, R-squared=0.4273). No predictors were identified for avoidant decision making style and impulsivity.

Following the requirements of path analysis, we also tested for association between the groups of variables at secondary and tertiary levels of the model with variables at the relevant upper levels of the model. No further associations between these

variables were established. The predictive model outlining the complex pathways explaining the achievement of financial self-sufficiency among persons with psychiatric disabilities who have been recipients of Social Security cash benefits is presented at Figure 2.

-- Insert Figure 2 here --

Our findings about the predictors of financial self-sufficiency among persons with psychiatric disabilities, who have been recipients of Social Security disability benefits, emphasize the role of having a job with a higher occupational status, of maintaining physical wellness and of using a proactive style of coping with challenges in life. Since a higher occupational status in this sample was predicted only by the level of the person's education, it is evident that a special emphasis needs to be placed on supported education programs that will increase the chances of people with psychiatric disabilities to get better paying jobs that frequently provide health benefits as well. In addition, higher level jobs tend to be more meaningful and satisfying which in turn increases their sustainability. More attention is also needed for the assessment of the job-person fit for recipients of vocational rehabilitation services who had previous educational and vocational attainments. As our findings suggest a career change that requires the development of new professional skills is an important factor for the person's employment success. The evaluation of the job-person fit and the implementation of relevant career changes require a better integration of supported employment and supported education programs services individuals with psychiatric disabilities.

The negative impact of physical co-morbidity on the employment outcomes and capacity for financial self-sufficiency of people with psychiatric disabilities emphasizes

the need of expending the availability of wellness programs addressing the needs of this population. Such programs can increase the level of health education and of motivation to maintain healthy living styles which in turn might promote employment outcomes.

The importance of having a proactive style of coping with challenges in life appears as the most novel finding relevant to the predictors of financial self-sufficiency among people with psychiatric disabilities. Proactive coping is a relatively new concept introduced in the coping literature from the perspective of positive psychology (Schwarzer & Knoll, 2003; Greenglass, et al., 1999). Proactive coping is examined as an approach to life based on the belief that things will work out not because of luck or other uncontrollable factors, but because the individual takes responsibility for outcomes. Proactive coping is distinguished from other coping styles in that it incorporates a vision of success, uses positive emotional strategies and involves goal setting and tenacious goal pursuit. Our study confirms the hypothesis that proactive coping differs from other forms of coping, for instance preventive coping: we found no difference in the level of preventive coping when comparing past and current recipients of Social Security benefits. The most important finding of our study consists in the fact that the impact of all diagnostic, clinical, dispositional and vocational variables on financial self-sufficiency is mediated by the person's level of proactive coping. Furthermore, the impact of psychiatric diagnosis and mental stability undergoes two levels of mediation: it is mediated by resilience which in turn is mediated by proactive coping. This emphasizes the need of developing innovative interventions to foster proactive coping in this population. While such interventions most likely will have a positive impact on the person's overall level of recovery, modified version addressing proactive coping at the

workplace and in regards to exiting the disability rolls need to be incorporated into existing vocational rehabilitation programs.

READINESS FOR FINANCIAL SELF-SUFFICIENCY AMONG CURRENT RECIPIENTS OF SOCIAL SECURITY BENEFITS

In order to better understand what determines readiness to achieve financial self-sufficiency among recipients of disability benefits with psychiatric conditions, we explored whether the primary predictive model distinguishes between recipients who are at the pre-contemplation stage of readiness for self-sufficiency (n=29) and recipients who are at the contemplation/preparation stages of readiness for self-sufficiency (n=22). The results from the multiple regression where occupational status, proactive coping and physical co-morbidity were included as independent variables showed that only proactive coping was associated with the degree of readiness for financial self-sufficiency (p=0.0220). As expected, those with higher level of proactive coping were more likely to be at the contemplation/preparation stages of readiness for financial self-sufficiency. This finding further emphasizes the importance of proactive coping as a primary determinant of the ability of individuals with psychiatric disabilities to achieve financial self-sufficiency through gainful employment and the need of both vocational rehabilitation and mental health programs to foster skills for proactive coping.

We also tested if the secondary level of the predictive model of financial self-sufficiency (that is predicting level of proactive coping) will hold true for the other stages of readiness. The results from the multiple regression showed that impulsivity was the only variable of the original predictive model that was associated with the degree of readiness for financial self-sufficiency among current recipients of disability benefits (p=

0.0220). Since the statistical power for these analyses is highly limited by the small sample size, it is possible that other elements of the predictive model may be confirmed in future studies with a larger end. At the same time, such future studies will help clarify if different sets of predictors might be associated with the different stages of readiness for financial self-sufficiency.

IMPACT OF DURATION OF DISABILITY BENEFITS RECEIPT ON READINESS OF FINACIAL SELF-SUFFICIENCY

Since we had a substantial variation in the duration of receiving Social Security benefits prior to exiting the disability roll, we decided to test if the primary predictive model might also explain how quickly individuals with psychiatric disabilities are able to exit the disability rolls. The outcome variable in this model was duration of Social Security benefits. It was defined as a categorical variable distinguishing between individuals who received benefits for five years or less (n=34) and those who received benefits for more than 5 years (n=33). None of the predictors (occupational status, proactive coping and physical co-morbidity) at the primary level of the overall predictive model were associated with duration of benefits receipt. While the limited statistical power might contribute to these findings, it is possible that other factors (i.e., level of mental stability) explain how long people remain on the disability rolls before embarking on a vocational recovery path.

CONCLUSIONS

This study charted a new territory in the understanding of the process of vocational recovery among people with psychiatric disabilities. It was conducted with a unique

sample that previously has not been reported in literature. The study informed the development of a conceptual model of the overall vocational recovery process that outlines the complex determination of the overall process of vocational recovery when accounting for the specificity of the different stages of this process. The study also identified novel predictors of the capacity of individuals with psychiatric disabilities to exit the disability rolls and achieve financial self-sufficiency through gainful employment. Study findings are expected to inform the development of innovative interventions that would foster the employment outcomes among persons with psychiatric disabilities.

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Table 1. *Demographic, clinical, vocational, and benefits characteristics of study participants* (n = 167)*

Variables	Off Social Security benefits (n=69) *n* (%) or Mean ± SD	On Social Security benefits (n=54) *n* (%) or Mean ± SD	Off/on Social Security benefits (n=14) *n* (%) or Mean ± SD	Off other disability benefits (n=20) *n* (%) or Mean ± SD	On other disability benefits (n=9) *n* (%) or Mean ± SD
Age	47.86 ± 8.00	48.76 ± 7.60	48.30 ± 5.37	45.16 ± 9.03	48.01 ± 8.74
Gender (female)	57 (83%)	41 (76%)	10 (71%)	16 (80%)	4 (44%)
Ethnicity (Caucasian)	64 (93%)	50 (93%)	14 (100%)	20 (100%)	9 (100%)
Marital status					
Single, never married	32 (46%)	22 (41%)	4 (29%)	1 (5%)	1 (11%)
Married or in serious relationship	16 (23%)	10 (19%)	5 (36%)	9 (45%)	5 (56%)
Divorced, separated, or widowed	21 (30%)	22 (41%)	5 (36%)	10 (50%)	3 (33%)
Education					
Graduate degree	33 (48%)	14 (26%)	4 (29%)	11 (55%)	5 (56%)
B.A. degree	25 (36%)	16 (30%)	6 (43%)	6 (30%)	2 (22%)
Some college	10 (15%)	15 (28%)	4 (29%)	3 (15%)	2 (22%)
High school diploma	1 (1%)	6 (11%)	--	--	--
Primary diagnosis					
Schizophrenia spectrum	22 (32%)	20 (37%)	2 (14%)	--	1 (11%)
Bipolar	28 (41%)	18 (33%)	9 (64%)	15 (75%)	6 (67%)
Major depression	14 (20%)	12 (22%)	1 (7%)	5 (25%)	2 (22%)
Other	5 (7%)	3 (6%)	1 (7%)	--	--
Trauma diagnosis	10 (15%)	10 (19%)	1 (7%)	1 (5%)	1 (11%)
History of substance abuse	23 (33%)	20 (37%)	7 (50%)	6 (30%)	3 (33%)
Age of first symptoms	22.65 ± 8.74	19.21 ± 7.90	15.93 ± 6.53	20.00 ± 11.78	20.33 ± 8.40
Age of onset	25.70 ± 9.05	23.87 ± 7.58	21.79 ± 6.84	26.65 ± 11.07	25.33 ± 6.14
Number of lifetime hospitalizations					
None	1 (1%)	3 (6%)	2 (14%)	1 (5%)	3 (33%)
One	6 (9%)	1 (2%)	1 (7%)	6 (30%)	2 (22%)
Two	6 (9%)	3 (6%)	--	5 (25%)	--
Three to five	21 (30%)	13 (24%)	4 (29%)	5 (25%)	2 (22%)
More than five	34 (49%)	33 (61%)	7 (50%)	3 (15%)	1 (11%)
Age of first psychiatric hospitalization	27.66 ± 9.15	26.66 ± 7.73	23.67 ± 5.45	30.84 ± 9.25	29.67 ± 5.16
Serious medical condition	33 (48%)	39 (72%)	10 (71%)	11 (55%)	3 (33%)
Prior work before illness onset	48 (70%)	32 (59%)	11 (79%)	9 (45%)	7 (78%)
Length of work before illness onset					
Less than one year	8 (12%)	8 (15%)	2 (14%)	--	2 (22%)
One to three years	12 (17%)	9 (17%)	6 (43%)	3 (15%)	1 (11%)
Three to five years	11 (16%)	7 (13%)	1 (7%)	--	--
More than five years	25 (36%)	12 (22%)	2 (14%)	6 (30%)	4 (44%)

Table 1. *Demographic, clinical, vocational, and benefits characteristics of study participants (n = 167)* (cont.)

Variables	Off Social Security benefits (n=69) *n* (%) or Mean ± SD	On Social Security benefits (n=54) *n* (%) or Mean ± SD	Off/on Social Security benefits (n=14) *n* (%) or Mean ± SD	Off other disability benefits (n=20) *n* (%) or Mean ± SD	On other disability benefits (n=9) *n* (%) or Mean ± SD
Length of job tenure before illness onset					
Less than one year	12 (17%)	12 (22%)	3 (21%)	1 (5%)	1 (11%)
One to two years	11 (16%)	7 (13%)	2 (14%)	--	1 (11%)
More than two years	31 (45%)	17 (32%)	6 (43%)	8 (40%)	5 (56%)
Receipt of vocational services	39 (57%)	28 (52%)	9 (64%)	3 (15%)	3 (33%)
Occupational setting					
Self-help/advocacy	11 (16%)	2 (4%)	--	2 (10%)	--
Mental health	15 (22%)	5 (9%)	1 (7%)	2 (10%)	--
Health/human services	14 (20%)	4 (7%)	--	3 (15%)	1 (11%)
Non-helping settings	24 (35%)	23 (43%)	8 (57%)	12 (60%)	7 (78%)
Availability of additional financial resources	56 (81%)	45 (83%)	12 (86%)	14 (70%)	7 (78%)
Type of disability benefits					
SSI	16 (23%)	7 (13%)	1 (7%)	--	--
SSDI	35 (51%)	43 (80%)	13 (93%)	--	--
SSI/SSDI	18 (26%)	4 (7%)	--	--	--

* Note: Since only one respondent constituted the group of individuals who were off and then back on other disability benefits, this sixth group is not included in the table.

Table 2. Additional financial resources available to past and current recipients of disability benefits

Type	Current Recipients n=78	Past Recipients n=89
1. Personal savings/investments	21 (26.9 %)	31 (34.8 %)
2. Financial resources of spouse/partner	15 (19.2 %)	17 (19.1 %)
3. Financial resources of parents	12 (15.4 %)	24 (27.0 %)
4. Financial resources of other family members	5 (6.4 %)	4 (4.5 %)
5. Financial resources of friends	4 (5.1 %)	2 (2.2 %)
6. Income from odd jobs	12 (15.4 %)	22 (24.7 %)
7. Food stamps	7 (9.0 %)	16 (18.0 %)
8. Housing subsidy	20 (25.6 %)	10 (11.2 %)
9. Unemployment income	1 (1.3 %)	4 (4.5 %)
10. Retirement income	4 (5.1 %)	3 (3.4 %)
11. Trusts	4 (5.1 %)	2 (2.2 %)
12. Inheritance	6 (7.7 %)	3 (3.4 %)
13. Lottery winnings	0 (0.0 %)	1 (1.1 %)
14. Other	3 (3.8 %)	9 (10.1 %)

Table 3. Facilitators of vocational recovery

Types of Facilitators	Return to Work	Sustained Employment	Financial Self-Sufficiency
Functional			
Symptom remission/mental stability	X	X	X
Functional capacity	X		
Efficient work self-regulation	X	X	X
Improved physical fitness prior to return to work	X		
Positive impact of work on overall recovery		X	
Overcoming attendance problems		X	
Improved coping capacity			X
Motivational			
Determination to work	X	X	X
Sense of readiness to work	X		
Determination to get better	X		X
Desire to do more with one's own life	X		
Reluctance to continue living in poverty	X		
Desire to increase own income	X		
Desire to avoid homelessness	X		
Fear of continuous dysfunction	X		
Awareness of positive impact of work on self-esteem	X		
Awareness of the work success of other consumers	X	X	
Need to support family/children	X	X	
Desire to contribute to society	X		
Desire to be respected by children	X		
Persistence in searching for a job with a better fit		X	
Interest in job content		X	
Feeling recognized at work		X	
Finding meaning in work		X	
Not afraid of losing the job in case of hospitalization		X	
Earning decent income		X	
Healthy shame		X	X
Motivation to discontinue disability benefits			X
Frustration with SSA bureaucracy			X
Need to increase income			X
Motivation to increase quality of life			X

Table 3. Facilitators of vocational recovery (cont.)

Types of Facilitators	Return to Work	Sustained Employment	Financial Self-Sufficiency
Dispositional			
Personal drive	X	X	X
Resilience	X	X	X
Active approach in getting a job	X		
Feeling hopeful about the future	X		
Risk taking capacity	X		X
Strong work ethic	X		
Capacity to contain the fear of losing disability benefits	X		
Readiness to accept any kind of work and wage	X		
Building work-related self-confidence		X	X
Feeling good about one's self after initial work success		X	
Burn out from employment prior to disability			X
Stable life style			X
Treatment/Services related			
Effective psychiatric medications, including PRN	X	X	X
Psychotherapy	X	X	X
Vocational rehabilitation services	X	X	
Involvement in a self-help/advocacy group	X		X
Help of mental health provider to get a mental health job	X		
Counseling to figure out SSA policies		X	
Vocational			
Acquiring new or additional professional training	X	X	X
Job-person fit (interest in job; functional capacity and vulnerabilities	X	X	X
Employment requiring consumer status	X	X	X
Volunteering	X		
Work opportunity	X		
Being given a chance to work	X		
Internal recommendation for position	X		
Persistent job search	X		
Prior receipt of services at the same agency	X		
Prior work experience	X		
Career change	X	X	X

Table 3. Facilitators of vocational recovery (cont.)

Types of Facilitators	Return to Work	Sustained Employment	Financial Self-Sufficiency
Vocational (cont.)			
Flexible working hours		X	
Initial reduced workload		X	
Gradual increase of work responsibilities		X	
Accommodations		X	X
Disclosure/non-disclosure		X	
Having autonomy at work		X	
Built-in flexibility of the job			X
Employer's openness to a gradual transition to full-time work			X
Starting own business			X
Support			
Support/encouragement of mental health providers	X	X	X
Support of peers	X		X
Support of friends	X		
Support of family	X	X	X
Having a mentor	X		
Spirituality	X	X	X
Support of supervisor		X	X
Support of co-workers		X	
Family members proud of the person's success		X	
Using Internet support at the job		X	
Resources			
Transportation		X	
Earning a decent income		X	X
Having health benefits			X
Finding a job providing health benefits			X
Having affordable housing			X
Financial support from family			X
Having a trust fund			X
Employer long-term disability insurance		X	
Disability Benefits Provisions			
Types of disability benefits			X
Provisions for safe return to benefit			X

Table 4. Barriers of vocational recovery

Types of Facilitators	Return to Work	Sustained Employment	Financial Self-Sufficiency
Functional			
Fluctuating psychiatric symptoms	X	X	X
Residual psychiatric symptoms	X		
Lack of concentration	X		
Difficulty getting up in the morning	X		
Limited interpersonal skills	X		
Anxiety about interacting with co-workers	X		
Anxiety about having to explain gaps in employment	X	X	
Difficulty working a whole day	X		X
Physical problems		X	X
Impulsivity		X	
Less time for recovery activities		X	X
Motivational			
Fear of relapse	X		X
Fear of work related stress	X		
Fear of failure	X		
Fear of losing benefits	X		X
Fear of criticism		X	
Fear of not being able to measure up at work		X	
Fear of losing the job in the future			X
Dispositional			
Lack of vocational self-confidence	X		
Feelings of incompetancy	X		
Self-doubts about own capacity to handle stress	X		
Lack of direction in life	X		
Self-stigma	X		
Not able to recognize personal limitations	X		
Authority issues	X		
Difficulty accepting downward change of level of job/pay	X		
Self-doubt about own functional capacity		X	X
Sense of vulnerability at work		X	
Loss of status due to working at low level jobs after professional career		X	
Unexpressed grief over previous professional losses		X	
Age related concerns about getting a full-time job			X

Table 4. Barriers of vocational recovery (cont.)

Types of Facilitators	Return to Work	Sustained Employment	Financial Self-Sufficiency
Treatment/Services related			
Inconsistent intake of psychiatric medications		X	
Side effects from psychiatric medications		X	X
Not being able to get vocational training for a less stressful job			X
Vocational			
Negative impact of loss of previous job(s)	X	X	X
Lack of vocational opportunities	X		
Unsupportive work environment		X	
Insufficient supervision		X	
Conflict with supervisor		X	
Problematic job-person fit		X	
Returning to full-time work too soon		X	
Attempting too much work at once		X	
Disclosure		X	
Lack of more advanced professional skills		X	
Change of jobs due to a move		X	
Burn out effect from previous employment			X
Unavailability of a well-paying job			X
Negative Interpersonal Influences			
Pessimism of family members	X		
Discouragement by mental health providers	X	X	
Psychiatric stigma	X		
Lack of family support		X	
Problematic marriage		X	
Unfriendly co-workers		X	
Resources			
Lack of transportation	X		
Lack of suitable clothing		X	
Anticipated decrease in income			X
Fear of losing health insurance			X
Fear of losing subsidized housing			X
Disability Benefits Provision			
Insufficient accommodations			X
Provisions not allowing more gradual increase of hours			X
Insufficient number of months for trial period			X

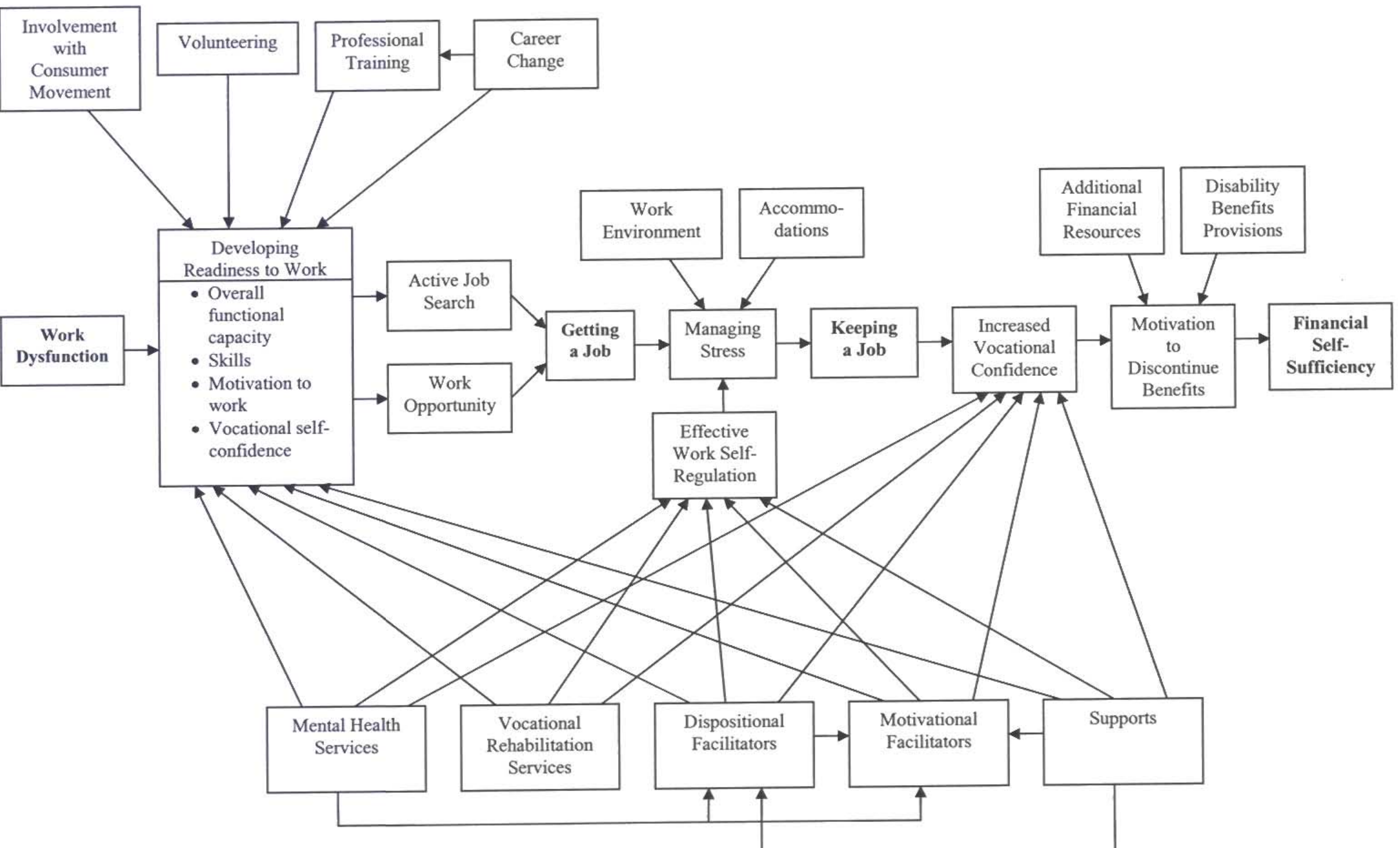

Figure 1. Conceptual model of the process of vocational recovery of persons with psychiatric disabilities.

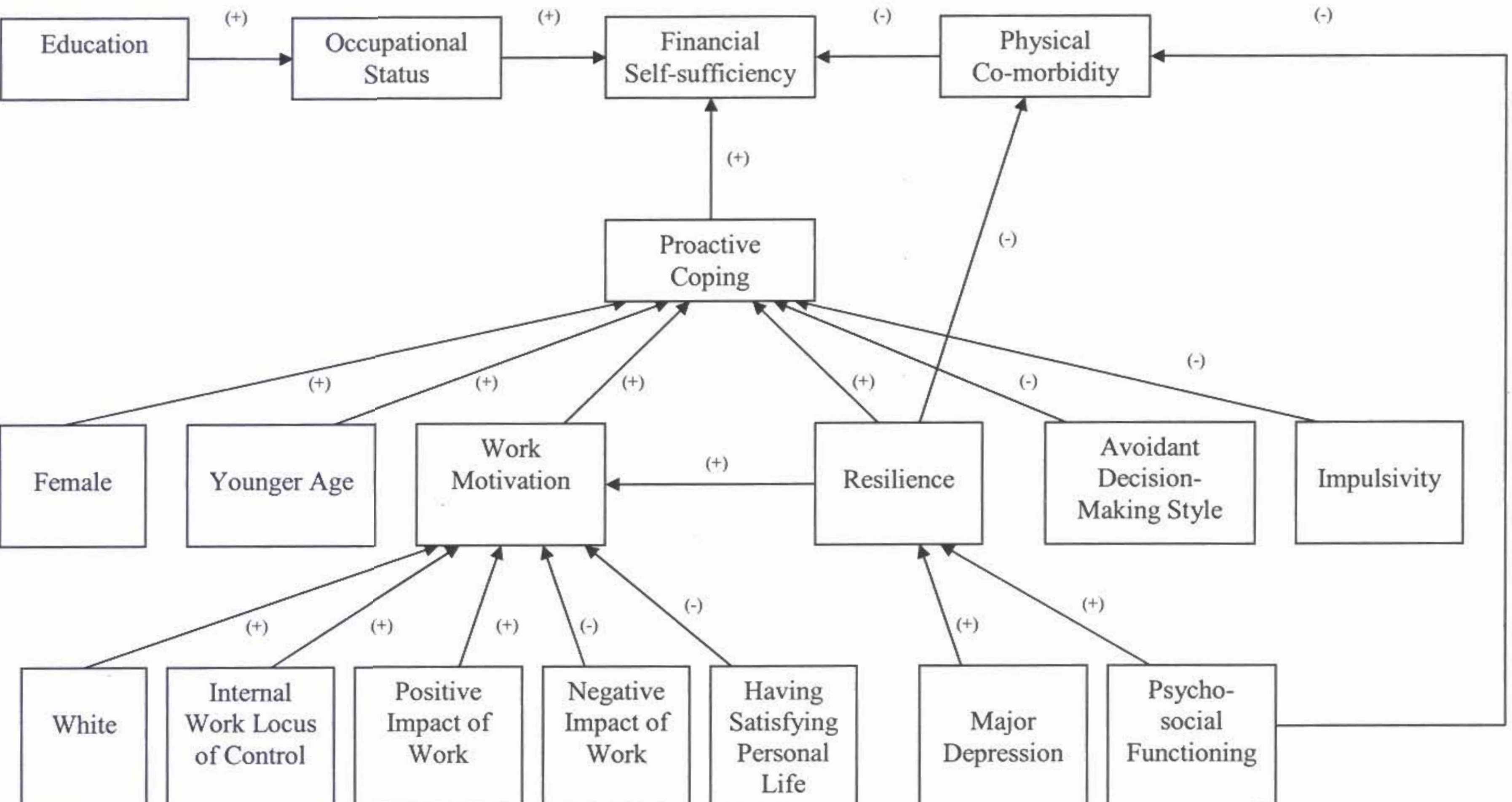

Figure 2. Predictive pathways for financial self-sufficiency among persons with psychiatric disabilities.