

Work Values of People With Severe Mental Disorders Registered in Vocational Programs: Validation of the Work Values Questionnaire

Sara Zaniboni

University of Trento and University of Sherbrooke

Marc Corbière

University of Sherbrooke

Franco Fraccaroli

University of Trento

Jacques Perron

University of Montreal

ABSTRACT

Though several instruments have been developed for measuring work values in the general population, at present no instrument has been validated for people with mental disorders seeking a job. Employment specialists could use such a questionnaire to help people with severe mental disorders to get competitive employment, and consequently to maintain employment, as a pitfall for this population is job tenure. The Questionnaire de Valeurs de Travail (QVT), translated into English as the Work Values Questionnaire (WVQ), measures five work values: climate, status, risk, realization, and freedom. Our study's objectives were (a) to validate the QVT in individuals with mental disorders seeking a job; (b) to create a short

Sara Zaniboni, Department of Cognitive Sciences and Education, University of Trento, Rovereto, Italy, and School of Rehabilitation, University of Sherbrooke, Centre for Action in Work Disability Prevention and Rehabilitation, Longueuil, Quebec; Marc Corbière, School of Rehabilitation, University of Sherbrooke, Centre for Action in Work Disability Prevention and Rehabilitation, Longueuil, Quebec; Franco Fraccaroli, Department of Cognitive Sciences and Education, University of Trento, Rovereto, Italy; Jacques Perron, Department of Psychology, University of Montreal, Quebec.

Correspondence concerning this article should be addressed to Sara Zaniboni, Department of Cognitive Sciences and Education, University of Trento, Matteo del Ben 5/b, I-38068 Rovereto (TN), Italy. Email: sara.zaniboni@unitn.it

version of the QVT; (c) to classify people on the basis of their work-value patterns, and (d) to compare these profiles on the basis of work outcomes and related personal characteristics. Individuals with severe mental disorders ($N = 254$) registered in vocational programs filled in the QVT. The confirmatory factor analysis showed reasonable fit indices for the 58-item QVT and good fit indices for the 30-item QVT shortened form. People who placed a higher importance on work values were employed more often in competitive employment.

Because of the high potential risk of social and economic marginalization for people with severe mental disorders, there is increasing interest in integrating this population in the labour market (World Health Organization, 2001). However, obtaining competitive employment for people with severe mental disorders is still difficult, which translates to a high level of unemployment (Corbière, 2008). For example, a survey in Australia found that close to 90% of people with severe mental disorders were unemployed (Gureje, Herrman, Harvey, Morgan, & Jablensky, 2002). However, 47% of people registered in supported employment programs in Canada have obtained competitive employment (Latimer et al., 2006).

This population's low level of participation in the labour force does not mean that people with severe mental disorders are incapable of working or do not want to work (Corbière, 2008). Most do want to work (Shepherd, Murray, & Muijen, 1994), and work is important in improving personal well-being, self-concept, relational characteristics, and social functioning for people with severe mental disorders (Boardman, Grove, Perkins, & Shepherd, 2003; Burns et al., 2009).

Previous studies have considered a number of variables (positive and negative) that affect the ability of people with severe mental disorders to gain competitive employment. The most significant variables studied include severity of symptoms, previous work experience, motivational variables, financial aid, perceived barriers to obtaining competitive employment, cognitive deficits, stigma, and employers' attitudes (Bell, Tsang, Greig, & Bryson, 2009; Corbière, Mercier, Lesage, & Villeneuve, 2005; Rosenheck et al., 2006; Stuart, 2006).

Although previous research has recognized the importance of work for people with severe mental disorders and has explored the work characteristics of those who have attained competitive employment, to our knowledge no existing study takes the *work values* of people with severe mental disorders into consideration. This is surprising because supported employment programs put emphasis on the work preferences of people with severe mental disorders in helping them to obtain competitive employment. It is crucial for employment specialists to consider the concept of work values before offering support for integrating people with severe mental disorders into the workplace, in order to help secure employment that corresponds to people's values. This step should help these clients maintain employment, given that a pitfall for this population is job tenure (McGurk, Mueser, & Pascaris, 2005). Also, according to work experiences and work plans, people can present different work-value profiles; therefore, to establish work-value profiles for this population would be useful for employment specialists and their clients. The three functions of the value system defined by Rokeach (1973) are particularly relevant for individuals involved in a job search. Because values are directly related to (a) *self-presentation and perception of others* in a hiring context, (b) *conflict resolution* between evenly perceived attractive and unattractive job characteristics, and (c) *decision-making* for a personally

congruent and satisfying choice, they are important for regulating the psychological processes that lead to obtaining competitive employment.

The definitions and measures of work values vary considerably (Dose, 1997). Work values have been defined and conceptualized in different ways—as needs, levels of importance, preferences, personal values, and desirable modes of behaviour (George & Jones, 1997; Lofquist & Dawis, 1971; Meglino & Ravlin, 1998; Pryor, 1981; Super, 1970). Yet, Dose's review (1997) pointed out the lack of consensus over definitions of general values and work values. Based on logic and previous theory, Dose defined work values as evaluative standards for choosing goals or guiding action that are relatively stable over time and that relate to work or the work environment, whereas Brown (2002) defined work values as satisfactory outcomes a person expects to attain through his or her participation in a work role. Brown suggested that cultural and work values are determinants for the occupational choice-making process, the occupation chosen, and related satisfaction. These definitions suggest that work values are linked to job motivation, work satisfaction, work performance, organizational commitment, and vocational and career choice, all of which are significant work outcomes (Brown, 2002; Ben-Shem & Avi-Itzhak, 1991; Dose, 1997; Meglino & Ravlin, 1998; Roe & Ester, 1999) to take into account when assessing the process of obtaining and maintaining competitive employment for people with severe mental disorders.

In line with these definitions, several instruments have been developed to measure work values: the Work Values Inventory (WVI; Super, 1970); the Minnesota Importance Questionnaire (MIQ; Lofquist & Dawis, 1971); the Work Aspect Preference Scale (WAPS; Pryor, 1979, 1981); the Survey of Work Values (SWV; Wollack, Goodale, Wijting, & Smith, 1971); and the Work Values Questionnaire (WVQ; Elizur, 1984; Elizur, Borg, Hunt, & Beck, 1991; for a more exhaustive review, see Dose, 1997). However, no single work values instrument has been reported in the severe mental disorders literature and validated for this population. The Work Values Questionnaire, referred to here as the Questionnaire de Valeurs de Travail (QVT; Perron, 1986; St-Onge, 1979) presents three characteristics relevant to people with mental disorders seeking a job. First, the questionnaire has been used not only for research activities but also for counselling and guidance interventions. For people with mental disorders who are seeking a job, counselling support is important for providing vocational guidance (Corbière & Lecomte, 2009), especially when the objective of the vocational program is to reach the regular job market (Corbière et al., 2005). Since one of the principles of a supported employment program is to take into account the person's work values, preferences, and work interests, investigating work values with participants registered in supported employment programs would be beneficial. Second, the QVT tool has been validated in different Canadian target populations. The item wording of the QVT is appropriate and understandable for adolescents, adults, workers, and unemployed individuals with different sociodemographic and psychosocial characteristics (Perron, 1986, 1996, 1997, 2001). Third, the QVT tool was developed and validated in Quebec (Montreal area) and reflects the norms for work values in the Canadian population, the same cultural context in which the present study was conducted. Therefore, we hypothesized that the QVT tool would fit individuals with severe mental disorders and would allow us to compare results between different Canadian populations.

The overall objective of this study was to validate the QVT tool in individuals with severe mental disorders registered in vocational programs. Our objectives were (a) to assess the original factor structure

of the QVT tool (58 items) with individuals with severe mental disorders seeking a job; (b) to develop a shorter version of the QVT tool to make it easier to use for people with severe mental disorders, not only for research but also for professional or clinical purposes; (c) to classify people with mental disorders on the basis of their work-value profiles; and (d) to compare these profiles on the basis of work outcomes and related personal characteristics.

METHOD

Design

The study's aim was to evaluate the most significant variables (i.e., personal and social) for predicting the attainment of competitive employment by people with severe mental disorders registered in vocational programs. This process consisted of two phases. In Phase 1, people with severe mental disorders who were newly registered in vocational programs located in the greater Montreal area were informed about the study objectives. When a person agreed to participate in the study, we administered, among a battery of questionnaires (for a description, see Corbière et al., 2005), the QVT, the Barriers to Employment and Coping Efficacy Scale (BECES; Corbière, Mercier, & Lesage, 2004), and the Career Search Efficacy Scale (CSES; Solberg et al., 1994). In Phase 2, we contacted the same participants by telephone 9 months after they had registered in the program to collect information about their vocational path during the 9-month period. The telephone interviews were 20 to 30 minutes in length, and data collection complied with the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Human Subjects*. All ethical issues were explained in the consent form signed by the participants. We obtained ethics approval for this study from the Fernand Seguin Research Centre (Montreal) Research Ethics Board.

Participants

Vocational counsellors recommended clients to participate in this study using three criteria: disability, anticipated duration and/or current duration of the disability, and diagnoses (Ontario Ministry of Health and Long-Term Care, 1999). Disability refers to difficulties that interfere with or severely limit an individual's capacity to function in one or more major life activities. Anticipated and/or current duration refer to the acute and ongoing nature of the problems. More recently, duration has been defined and measured in relation to the amount of service utilization and has become an indicator of severity as well as chronicity (Ontario Ministry of Health and Long-Term Care, 1999). Diagnoses of predominant concern among these clients are schizophrenia, mood disorders, paranoid psychosis, and other psychoses. Clients with severe personality disorder, concurrent disorder, and dual diagnosis also participated.

In Phase 1, 254 French-speaking individuals with severe mental disorders who were seeking a job and registered in a vocational program completed the QVT. Among them, 53% ($n = 135$) were women, and the average age was 38 years ($SD = 8.73$; min = 18 to max = 58). With respect to education, 22.4% ($n = 57$) of the participants had completed primary school or some high school, 26% ($n = 66$) had completed high school, 21.7% ($n = 55$) had graduated from college, and 28% ($n = 71$) had attained a university-level education; educational information was not available for 2% of the participants. The psychiatric diagnosis (self-report)

found that 36.6% ($n = 93$) of the participants had a mood disorder, 18.5% ($n = 47$) had a diagnosis of schizophrenia or other psychotic disorders, 13.4% ($n = 34$) had an anxiety disorder, and 31.5% ($n = 80$) had other diagnoses (e.g., personality disorders). In terms of length of absence from the workplace, 40.6% ($n = 103$) of participants had been unemployed for 1 year or less, 17.3% ($n = 44$) from 1 to 2 years, 17.7% ($n = 45$) from 2 to 5 years, and 15% ($n = 38$) for more than 5 years; this information was not available for 9.4% of the participants.

In Phase 2, 202 participants completed the telephone interview (80% of the Phase 1 participants). In terms of vocational path (i.e., obtaining or not obtaining employment), 109 (54%) had found at least one job during the 9-month period. Of these, 61 participants (56%) were employed in a regular job (i.e., “sporadic or casual employment” and “independent competitive employment”), 24 (22%) were employed in a regular job with support (i.e., “job coach model” or “assisted competitive model”), and 24 (22%) were employed in a protected job (i.e., “transitional employment model” or “sheltered workshops”). There were no significant differences in demographic (e.g., age), clinical (e.g., diagnosis), and work-related variables (e.g., length of absence from the workplace) at the 9-month follow-up between those who had completed the study and those who had not.

Measures

Questionnaire de Valeurs de Travail (Work Values Questionnaire). The QVT (Perron, 1986) consists of 58 items that assess the degree of importance of work values. The questionnaire is composed of five subscales assessing work characteristics: Status – 14 items (personal successes and social recognition); Realization – 11 items (creativity, utilization of personal resources, and self-expression); Climate – 10 items (acceptance and understanding by others); Risk – 12 items (competition and possible difficulties and obstacles to overcome); and Freedom – 11 items (independence, self-determination, and autonomy). The items were scored on a 6-point Likert scale ranging from 1 (*almost no importance*) to 6 (*very great importance*). The coefficients of internal consistency (Cronbach’s alpha) varied from .78 to .89 (Perron, 1986).

Obstacles à l’Insertion au Travail et du Sentiment d’Efficacité pour les Surmonter (Barriers to Employment and Coping Efficacy Scale). The BECES (Corbière et al., 2004) consists of 43 items measuring the potential barriers to obtaining competitive employment (Barriers to Employment subscale) and self-efficacy for coping with these barriers (Coping Efficacy subscale). We scored the Barriers to Employment items on a 7-point Likert scale ranging from 1 (*not likely at all*) to 7 (*completely likely*), and the Coping Efficacy items on a 7-point Likert scale ranging from 1 (*not able at all*) to 7 (*completely able*). This study used only the global score of the Coping Efficacy subscale. The coefficient of internal consistency (Cronbach’s alpha) varied from .77 to .96 (Corbière et al., 2004).

Échelle d’Efficacité dans la Recherche de Carrière (Career Search Efficacy Scale). The CSES (Solberg et al., 1994) consists of 35 items assessing a person’s degree of confidence in performing a variety of career search tasks. The items were scored on a 10-point rating scale from 0 (*very little*) to 9 (*very much*). The scale was composed of four dimensions and a global score. In this study, only the global score was used. The coefficients of internal consistency (Cronbach’s alpha) varied from .87 to .95 (Solberg et al., 1994).

Data Analyses

We conducted the confirmatory factor analysis (CFA) to (a) evaluate the usefulness of the original factor structure of the 58-item QVT in assessing the work values of a targeted population of individuals with severe mental disorders; and (b) obtain a parsimonious version of the QVT (QVT-SF) and validate it for people with severe mental disorders. We performed CFAs using LISREL 8.7 (Jöreskog & Sörbom, 2004), with the covariance matrix as input and maximum likelihood as the estimation method. We employed the reduced form of the QVT tool using the CFA procedure, considering the square of the t value and the modification indices to favour a more parsimonious model from the data. We based the assessment of fit on several indices: chi-square test, normed chi-square (χ^2/df), Comparative Fit Index (CFI), Non-Normed Fit Index (NNFI), and Root Mean Square Error of Approximation (RMSEA). The fit was deemed satisfactory when the chi-square test was non-significant, but given the dependence of the chi-square test on sample size, we also used other indices (Bollen & Long, 1993). The χ^2/df for values between 1.0 and 5.0 fell within acceptable levels (Schumacker & Lomax, 1998). The CFI and NNFI indicated an acceptable fit of the model to the data if the values were $\geq .90$. RMSEA index values in the range of .05 to .08 indicated a fair fit (Browne & Cudeck, 1989). Nevertheless, Hu and Bentler (1999) proposed more stringent criteria in which a model would be accepted only when the NNFI and the CFI are $\geq .95$ and the RMSEA is $< .06$. We examined convergent and discriminant validity in accordance with Anderson and Gerbing (1988) and assessed the reliability of each construct using the composite reliability (CR) formula suggested by Fornell and Larcker (1981).

To address the third objective of the study, we used cluster analysis procedures to define profiles of work values in people with severe mental disorders. We first conducted agglomerative hierarchical cluster analysis to establish the number of clusters in the sample and then used k -means cluster analysis procedures to group individuals. We examined the reliability/stability of this cluster solution using a split-half test (Luke, Rappaport, & Seidman, 1991). Cluster procedures were repeated on the data of half the participants, randomly selected, to confirm the validity of the results.

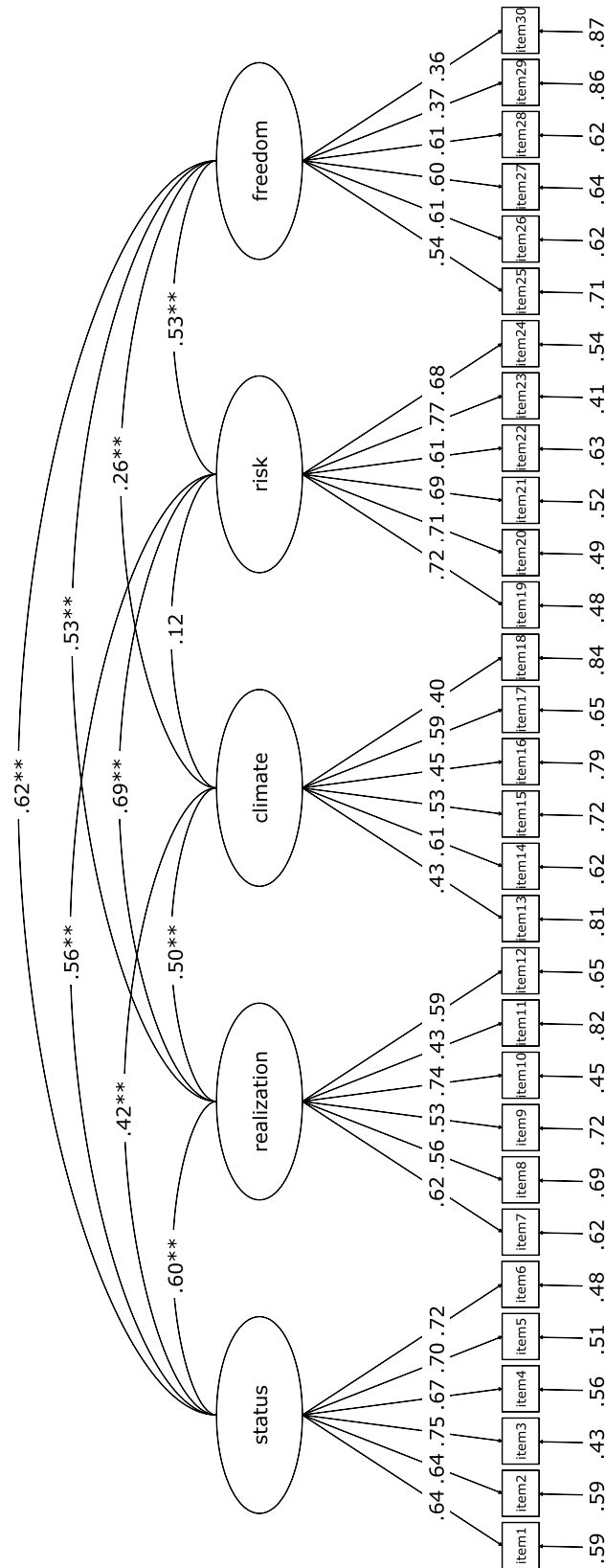
Finally, we investigated differences between cluster profiles and other variables (i.e., sociodemographic, clinical, personal, and work-related variables) using t tests for independent samples and the chi-square test of independence (using the Pearson chi-square coefficient).

RESULTS

The first CFA was conducted on the 58-item QVT. The CFA model showed a reasonable fit. The chi-square was significant, and all other indices were acceptable, $\chi^2 (1585, N = 254) = 3750.99, p = .00; \chi^2/df = 2.37; NNFI = .92; CFI = .93; RMSEA = .07$. Both the factor loadings (standardized λ between .34 and .80, $p < .01$) and errors (standardized δ between .36 and .88, $p < .01$) were significant.

To favour a more parsimonious model using the results obtained from the first CFA, we performed an instrument reduction procedure. The CFA model with 30 items showed a good fit. The chi-square was significant, and all other indices were good, $\chi^2 (395, N = 254) = 701.34, p = .00; \chi^2/df = 1.77; NNFI = .95; CFI = .95; RMSEA = .05$. Both factor loadings were significant (standardized λ between .36 and .77, $p < .01$) and the errors were standardized (δ between .41 and .87, $p < .01$; see Figure 1).

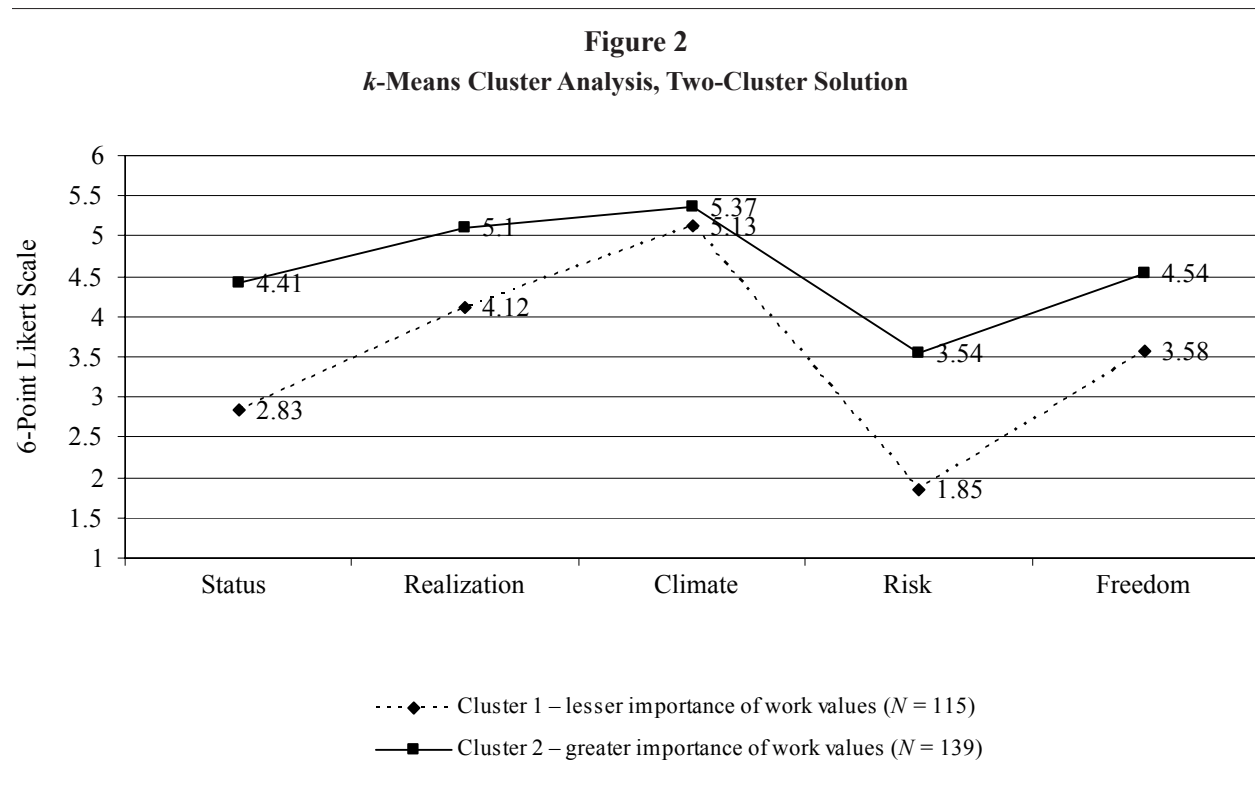
Figure 1
Confirmatory Factor Analysis Model of the Questionnaire de Valeurs de Travail – Short Form (30 Items)



Note. ** $p < .01$.

Convergent validity was achieved by significant ($p < .01$) and high factor loadings. The computed reliabilities ranged from .67 to .85. Discriminant validity analyses showed that none of the numbers in the confidence interval around the correlation estimate included 1.00, providing support for discriminant validity.

We performed a hierarchical cluster analysis to classify individuals with severe mental disorders into groups on the basis of their work-values profiles, while considering the five dimensions of the QVT-SF. On examining the agglomeration schedule, dendrogram, and percentages of individuals in each cluster for each solution, we determined that a two-cluster solution provided the most interesting pattern/profile of work values. We performed a k -means cluster analysis using a two-cluster solution. The means for both clusters on the five work values are presented in Figure 2.



The two clusters had the same pattern and corresponded to two distinct profiles related to the level of importance of work values for people with severe mental disorders. Accordingly, they were termed Cluster 1 – lesser importance of work values ($N = 115$); and Cluster 2 – greater importance of work values ($N = 139$). Even though the level of importance was different, for both profiles “Climate” was the highest work value, while “Risk” was the lowest.

We conducted a split-half test to examine the reliability/stability of the two-cluster solution. The participant sample was randomly divided into two subsamples (Sample A = 118 and Sample B = 136), and the cluster procedures were repeated for the two subsamples. A two-cluster solution emerged with the same conceptual pattern, suggesting that the clusters represented a stable organization of the work values.

We conducted chi-square tests of independence to verify the relationships between gender, age, educational level, psychiatric diagnosis, and the two work-values profiles. The results from these tests did not detect significant differences between gender, $\chi^2 (1, N = 254) = 1.52, p = .22$; age, $\chi^2 (2, N = 243) = .03, p = .98$; educational level, $\chi^2 (2, N = 249) = 3.73, p = .15$; and psychiatric diagnosis, $\chi^2 (2, N = 174) = 4.42, p = .11$ for the two work-values clusters. Subsequently, we considered the relationships between some characteristics related to work (i.e., length of absence from the labour market, getting or not getting a job, type of job obtained – protected vs. competitive employment) and the two work-values profiles. The chi-square test of independence did not show significant differences between the length of work absence, $\chi^2 (3, n = 230) = 2.79, p = .42$; the vocational path (obtaining or not obtaining employment) 9 months after registration in a vocational program, $\chi^2 (1, n = 193) = .35, p = .55$; and the two work-values profiles. The results from these tests detected a significant difference between clusters only for the type of job obtained 9 months later, $\chi^2 (2, n = 109) = 6.07, p = .05$, indicating that people from Cluster 2 who placed a greater degree of importance on work values had more “regular jobs” (30.3%) as well as “regular job with support” (13.8%) compared to people from Cluster 1 who placed a lesser degree of importance on work values (25.7% and 8.3%, respectively). Furthermore, people who placed a lesser degree of importance on work values had more “protected jobs” (15.6%) compared to people who placed a greater degree of importance on work values (6.4%).

Independent samples *t* tests allowed us to verify the relationships between Coping Efficacy, $t(252) = -2.26, p = .02$, and Career Search Efficacy, $t(252) = -5.39, p = .00$, and the two work-values profiles. Participants ($N = 139$) belonging to Cluster 2 presented significantly higher Coping Efficacy scores ($M = 5.21, SD = 1.03$) and Career Search Efficacy scores ($M = 5.89, SD = 1.61$) compared to the participants ($N = 115$) belonging to Cluster 1 ($M = 4.89, SD = 1.19$; and $M = 4.8, SD = 1.63$, respectively).

DISCUSSION AND CONCLUSIONS

The purpose of this study was to validate the QVT (Perron, 1986) that will be used by researchers and clinicians to better understand the work values of people with severe mental disorders during their work integration process. To validate the QVT with individuals with severe mental disorders, we analyzed several steps in the process, as outlined below.

First, we conducted a confirmatory factor analysis to evaluate the original factor structure of the 58-item QVT when applied to individuals with severe mental disorders registered in vocational programs. We obtained reasonable indices of fit for the results from the CFA of the QVT—the 58 items, and the factor loadings and errors, were acceptable. We performed a questionnaire reduction to develop a more parsimonious model and to facilitate the administration of the QVT to people with mental disorders. The results obtained from the CFA of the 30-item QVT-SF showed a good fit using the most stringent criteria (Hu & Bentler, 1999), and we achieved convergent and discriminant validities as well as satisfactory coefficients of reliability. We used this short version of the QVT for subsequent statistical analyses.

Second, the cluster analysis results showed two profiles related to the level of importance placed on work values for people with severe mental disorders: Cluster 1, lesser importance of work values; and Cluster 2, greater importance of work values.

The two profiles presented a similar pattern for all work values, except for the level of importance. Chi-square test results showed that relationships did not exist between sociodemographic (i.e., gender, age, and educational level), clinical (i.e., psychiatric diagnosis), and work-related variables (i.e., length of work absence, obtaining or not obtaining employment after registration in a vocational program) and the two work-values profiles, thus supporting the absence of links between these variables and the level of importance of work values. However, taking work-related characteristics into consideration, people with severe mental disorders who placed a greater degree of importance on work values were more often employed in the open labour market than people who placed less importance on work values. Also, the latter group usually obtained more protected jobs compared to people in the higher work-values group. Otherwise, the level of importance was related more to the type of future work environment obtained (protected vs. competitive) and not to other variables, as mentioned above.

Furthermore, the results from independent samples *t* tests showed that people with severe mental disorders placing a greater level of importance on work values reported having more personal resources to cope with barriers to employment, as well as increased self-efficacy for performing a variety of career search tasks. These results suggest that the importance a person places on valued aspects of work is related to his or her ability to manage difficulties in getting employment, to increased self-efficacy in executing job search actions, and to predicting work outcomes. As suggested by the self-efficacy and planned behaviour theories (Ajzen, 1996; Bandura, 1997), these active ingredients—attitude, coping with barriers, and self-efficacy—are essential for predicting work outcomes (or behavioural outcomes). In this vein, Baron (2000) suggested that to gain a better understanding of the vocational path of individuals, it is important to evaluate not only the presence or the duration of previous work experience, but also the subjective perception and the values that a person gives to past work experiences (e.g., mastery experience and emotional state).

Our results show that different degrees of importance in work values (lesser and greater) are mainly related to the type of work environment (protected vs. competitive) preferred by people with severe mental disorders as well as their subjective perceptions on barriers and self-efficacy to integrate into the workplace. Additional clinical interventions offered to people registered in vocational programs could help improve their self-efficacy and perceptions about the open labour market. To address these goals, Lecomte, Corbière, Lysaker, and Titone (2009) recently tailored a cognitive-behaviour therapy method to people with severe mental disorders registered in supported employment programs to help them identify the beliefs affecting their perceptions—and their potentially erroneous perceptions—about competitive employment, and to overcome those perceived obstacles to employment.

Regardless of the low or high importance placed on work values, both groups considered the Risk work value—the characteristics inherent to competition and the possible difficulties to overcome on the job—the least important of the five QVT-SF values. A possible explanation is that this population must manage many difficulties related to their illness and they therefore prefer to not take on difficult or challenging work. Consistent with this consideration, it has been widely demonstrated that people with severe mental disorders usually require work accommodations (e.g., introducing tasks gradually, creating a flexible

schedule for work start and finish times) to facilitate obtaining and maintaining competitive employment. These accommodations have the effect of reducing obstacles to and difficulties in accomplishing the work (Bond & Meyer, 1999; MacDonald-Wilson, Rogers, Massaro, Lyass, & Crean, 2002). Therefore, additional challenges for this population will probably be too demanding, and could discourage clients from seeking competitive employment *per se*.

In contrast with their avoidance of the Risk work value, people with severe mental disorders paid great attention to the Climate value. In fact, both study groups (people placing lesser and greater levels of importance on work values) declared that being readily accepted by their co-workers was an important consideration in the workplace, supporting results from other studies in which the relationships dimension and the absence of stigma were found to be crucial for people with severe mental disorders (Davidson et al., 1999; Yanos, Rosenfield, & Horwitz, 2001). Yet, this result is also convergent with the Risk value, in the sense that people with severe mental disorders could present difficulties in undertaking initiatives even though they risk being blamed (see the Appendix, QVT-SF, Item 22), and they might then perceive their workplace as a stigmatizing environment.

These results are relevant for employment specialists working in supported employment programs, which are considered to be “evidence-based practices” for helping people with severe mental disorders to obtain competitive jobs (Bond et al., 2001; Mueser, Torrey, Lynde, Singer, & Drake, 2003). In fact, one of the seven principles of supported employment programs (Corbière & Lecomte, 2009) is comprehension of personal work preferences, and the QVT-SF could be a useful tool for assessing work preferences/values in this population. Before people register in a supported employment program, we could evaluate their work values by level of importance. In the case of a lesser degree of importance placed on work values, employment specialists could help the participant better define his or her work values or better understand their reasons for the low importance of work values. In addition, employment specialists could help clients obtain competitive employment quickly (the other principle of supported employment programs) in order to test their work values, to take advantage of this work experience and, finally, to refine their work values. Corbière, Lesage, Villeneuve, and Mercier (2006) showed that people improved their work situation (e.g., salary, autonomy) after just one or two work experiences.

This study’s main limitation is the heterogeneity of the participant sample. The age range, psychiatric diagnosis, and the length of absence from the workplace owing to severe mental disorders varied significantly, regardless of the criteria for participation in vocational programs. These variables, however, could not explain the specific clusters of work values arising from the study population. Another limitation of this study is the absence of repeated measures of the QVT-SF that would enable us to determine if the tool is sensitive to changes over time and, more particularly, sensitive to new work experiences.

In conclusion the QVT-SF is an interesting and useful instrument for studies addressing work values in people with severe mental disorders because it is easily understandable by individuals with different functioning and psychopathology levels. For this reason, it could be used in both research and rehabilitation settings. Furthermore, the QVT-SF has adequate psychometric properties and takes only a few minutes to complete. The practical applications of the QVT-SF are very promising and, in future research, we could assess individuals with the QVT-SF prior to their participation in a vocational program.

RÉSUMÉ

Bien qu'il existe plusieurs instruments qui ont été développés pour mesurer les valeurs de travail, il n'y a pas actuellement de questionnaires validés pour les personnes aux prises avec un trouble mental en recherche d'emploi. En considérant les valeurs de travail des personnes aux prises avec un trouble mental grave, le conseiller spécialisé ou la conseillère spécialisée en emploi sera en mesure de faciliter l'obtention d'un emploi régulier chez son client ou sa cliente et, en conséquence, d'aider celui-ci ou celle-ci à maintenir son emploi, l'écueil du processus de réinsertion au travail pour cette population. Le Questionnaire de Valeurs de Travail (QVT)—en version anglaise *Work Values Questionnaire* (WVQ)—évalue 5 valeurs de travail (c-à-d., climat, statut, risque, réalisation et liberté). Les objectifs de l'étude étaient comme suit: (a) Valider le QVT chez les personnes ayant un trouble mental grave en recherche d'emploi; (b) créer une version abrégée du QVT; (c) profiler les personnes sur la base de leur configuration de valeurs et (d) comparer ces profils selon leurs résultats de travail et leurs caractéristiques personnelles. Les personnes avec un trouble mental grave ($N = 254$) inscrites dans un programme de réinsertion au travail remplissaient le QVT. Les analyses factorielles confirmatoires montraient des indices d'ajustement acceptables pour la version à 58 items du QVT, et de bons indices d'ajustement pour la version brève à 30 items. Les personnes qui accordaient un niveau d'importance élevé à propos des valeurs de travail étaient plus souvent employées sur le marché régulier du travail.

REFERENCES

- Ajzen, I. (1996). The directive influence of attitudes on behavior. In P.M. Gollwitzer & J.A. Bargh (Eds.), *The psychology of action: Linking motivation and cognition to behavior* (pp. 385–403). New York: Guilford Press.
- Anderson, J.C., & Gerbing, D.W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103, 411–423.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W. H. Freeman & Company.
- Baron, R. (2000). *The past and future career patterns of people with serious mental illness: A qualitative inquiry*. Switzer Fellowship Grant, Grant Award H133F980011, National Institute on Disability and Rehabilitation Research.
- Bell, M., Tsang, H.W., Greig, T.C., & Bryson, G.J. (2009). Neurocognition, social cognition, perceived social discomfort, and vocational outcomes in schizophrenia. *Schizophrenia Bulletin*, 35(4), 738–747.
- Ben-Shem, I., & Avi-Itzhak, T.E. (1991). On work values and career choice in freshman students: The case of helping vs. other professions. *Journal of Vocational Behavior*, 39, 369.
- Boardman, J., Grove, B., Perkins, R., & Shepherd, G. (2003). Work and employment for people with psychiatric disabilities. *British Journal of Psychiatry*, 182, 467–468.
- Bollen, K.A., & Long, J.S. (1993). *Testing structural equation models*. Newbury Park, CA: Sage Publications.
- Bond, G.R., Becker, D.R., Drake, R.E., Rapp, C.A., Meisler, N., Lehman, A.F., ... Blyler, C.R. (2001). Implementing supported employment as an evidenced-based practice. *Psychiatric Services*, 52, 313–322.
- Bond, G.R., & Meyer, P.S. (1999). The role of medications in the employment of people with schizophrenia. *Journal of Rehabilitation*, 65(4), 9–16.
- Brown, D. (2002). The role of work and cultural values in occupational choice, satisfaction, and success: A theoretical statement. *Journal of Counseling and Development*, 80, 48–55.
- Browne, M., & Cudeck, R. (1989). Simple sample cross-validation indices for covariance structures. *Multivariate Behavioral Research*, 24, 445–455.
- Burns, T., Catty, J., White, S., Becker, T., Koletsis, M., Fioritti, A., . . . Lauber, C. (2009). The impact of supported employment and working on clinical and social functioning: Results of an international study of individual placement and support. *Schizophrenia Bulletin*, 35(5), 949–958.
- Corbière, M. (2008). Le point sur la situation socioprofessionnelle des personnes atteintes de schizophrénie et autres troubles mentaux graves. *Revue Québécoise de Psychologie*, 29(1), 95–110.
- Corbière, M., & Lecomte, T. (2009). Vocational services offered to people with severe mental illness. *Journal of Mental Health*, 18(1), 38–50.

- Corbière, M., Lesage, A., Villeneuve, K., & Mercier, C. (2006). Le maintien en emploi des personnes souffrant d'une maladie mentale. *Santé Mentale au Québec*, 31(1), 9-36.
- Corbière, M., Mercier, C., & Lesage, A. (2004). Perceptions of barriers to employment, coping efficacy, and career search efficacy in people with mental health problems. *Journal of Career Assessment*, 12(4), 460-478.
- Corbière, M., Mercier, C., Lesage, A., & Villeneuve, K. (2005). Professional integration of individuals with a mental illness: An analysis of individual characteristics. *Canadian Journal of Psychiatry – Revue Canadienne de Psychiatrie*, 50(11), 722-733.
- Davidson, L., Chinman, M., Kloos, B., Weingarten, R., Stayner, D., & Tebes, J. (1999). Peer support among individuals with severe mental illness: A review of the evidence. *Clinical Psychology: Science and Practice*, 6(2), 165-187.
- Dose, J.J. (1997). Work values: An integrative framework and illustrative application to organizational socialization. *Journal of Occupational and Organizational Psychology*, 70, 219-240.
- Elizur, D. (1984). Facet of work values: A structural analysis of work outcomes. *Journal of Applied Psychology*, 69, 379-389.
- Elizur, D., Borg, I., Hunt, R., & Beck, I.M. (1991). The structure of work values: A cross-cultural comparison. *Journal of Organizational Behavior*, 12(1), 21-38.
- Fornell, C., & Larcker, D.F. (1981). Evaluating structural equation models with observable variables and measurement error. *Journal of Marketing Research*, 18, 39-50.
- George, J., & Jones, G. (1997). Experiencing work: Values, attitudes, and moods. *Human Relations*, 50(4), 393-416.
- Gureje, O., Herrman, H., Harvey, C., Morgan, V., & Jablensky, A. (2002). The Australian national survey of psychotic disorders: Profile of psychosocial disability and its risk factors. *Psychological Medicine*, 32(4), 639-647.
- Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55.
- Jöreskog, K.G., & Sörbom, D. (2004). LISREL 8.71 [Computer software]. Chicago: Scientific Software International.
- Latimer, E.A., Lecomte, T., Becker, D.R., Drake, R.E., Duclos, I., Piat, M., . . . Xie, H. (2006). Generalisability of the individual placement and support model of supported employment: Results of a Canadian randomised controlled trial. *The British Journal of Psychiatry: The Journal of Mental Science*, 189, 65-73.
- Lecomte, T., Corbière, M., Lysaker, P., & Titone, D. (2009). *Tailored cognitive-behaviour therapy for individuals with severe mental illness in supported employment programs: Effects on work outcomes and related variables*. Grant Award CIHR, 2009–2012.
- Lofquist, L.H., & Dawis, R.V. (1971). Values as second-order needs in the theory of work adjustment. *Journal of Vocational Behavior*, 12, 12-19.
- Luke, D.A., Rappaport, J., & Seidman, E. (1991). Setting phenotypes in a mutual help organization: Expanding behavior setting theory. *American Journal of Community Psychology*, 19(1), 147-167.
- MacDonald-Wilson, K.L., Rogers, E.S., Massaro, J.M., Lyass, A., & Crean, T. (2002). An investigation of reasonable workplace accommodations for people with psychiatric disabilities: Quantitative findings from a multi-site study. *Community Mental Health Journal*, 38(1), 35-50.
- McGurk, S.R., Mueser, K.T., & Pascaris, A. (2005). Cognitive training and supported employment for persons with severe mental illness: One-year results from a randomized controlled trial. *Schizophrenia Bulletin*, 31(4), 898-909.
- Meglino, B.M., & Ravlin, E.C. (1998). Individual values in organizations: Concepts, controversies, and research. *Journal of Management*, 24(3), 351-389.
- Mueser, K.T., Torrey, W.C., Lynde, D., Singer, P., & Drake, R. (2003). Implementing evidence-based practices for people with severe mental illness. *Behavior Modification*, 27(3), 387-411.
- Ontario Ministry of Health and Long-Term Care. (1999). *Making it happen: Operational framework for the delivery of mental health services and supports*. Toronto: Queen's Printer.
- Perron, J. (1986). *Questionnaire de Valeurs de Travail* [Manuel technique]. Montreal : Université de Montréal.
- Perron, J. (1996). Valeurs de Travail et motivations aux études : Prédiction de la réussite et de l'orientation scolaires. *Psychologie du Travail et des Organisations*, 2, 43-54.
- Perron, J. (1997). Présentation d'ensemble du projet d'étude et valeurs de travail des lycéens et des adultes. *L'Orientation Scolaire et Professionnelle*, 26, 3-31.
- Perron, J. (2001). *Questionnaire de Valeurs de Travail: Version lycée 2001* [Manuel technique]. Montreal : Université de Montréal.

- Pryor, R.G. (1979). In search of a concept: Work values. *Vocational Guidance Quarterly*, 27, 250-256.
- Pryor, R.G. (1981). Tracing the development of the work-aspect preference scale. *Australian Psychologist*, 16(2), 241-257.
- Roe, R.A., & Ester, R. (1999). Values at work: Empirical findings and theoretical perspective. *Applied Psychology: An International Review*, 48(1), 1-21.
- Rokeach, M. (1973). *The nature of human values*. New York: Free Press.
- Rosenheck, R., Leslie, D., Keefe, R., McEvoy, J., Swartz, M., Perkins, D., . . . Lieberman, J. (2006). Barriers to employment for people with schizophrenia. *American Journal of Psychiatry*, 163(3), 411-417.
- Schumacker, R.E., & Lomax, R.G. (1998). *A beginner's guide to structural equation modelling*. Hillsdale, NJ: Erlbaum.
- Shepherd, G., Murray, A., & Muijen, M. (1994). *Relative values: The differing views of users, family carers and professionals on services for people with schizophrenia in the community*. London: Sainsbury Centre for Mental Health.
- Solberg, V.S., Good, G.E., Nord, D., Holm, C., Hohner, R., & Malen, A. (1994). Assessing career search expectations: Development and validation of the Career Search Efficacy scale. *Journal of Career Assessment*, 2, 111-123.
- St-Onge, L. (1979). *Représentations axiologique du travail et biculturalisme québécois : profil d'étudiants du niveau collégial*. Thèse de doctorat inédite, Université de Montréal.
- Stuart, H. (2006). Mental illness and employment discrimination. *Current Opinion in Psychiatry*, 19(5), 522-526.
- Super, D.E. (1970). *Work values inventory*. Boston, MA: Houghton-Mifflin.
- Wollack, S., Goodale, J.G., Wijting, J.P., & Smith, P.C. (1971). Development of a survey of work values. *Journal of Applied Psychology*, 55, 331-338.
- World Health Organization. (2001). *The world health report 2001: Mental health – New understanding, new hope*. Geneva: Author.
- Yanos, P.T., Rosenfield, S., & Horwitz, A. (2001). Negative and supportive social interactions and quality of life among persons diagnosed with severe mental illness. *Community Mental Health Journal*, 37(5), 405-419.

APPENDIX

Items de Questionnaire de Valeurs de Travail – version abrégée

Items of the Work Values Questionnaire – Short Form

Status

1. Etre reconnu(e) à cause de vos réussites; *Achieve recognition through your success*
2. Détenir un poste qu'on accorde à peu de personnes; *Have a position held by a few persons*
3. Faire des choses remarquables; *Do noteworthy things*
4. Vous faire un nom; *Create a name for yourself*
5. Vous retrouver dans l'entourage de gens importants; *Be among important people*
6. Exercer une grande influence sur les autres; *Exert a great influence on others*

Realization

7. Découvrir des choses nouvelles; *Discover new things*
8. Participer activement aux réalisations de votre milieu; *Take an active part in your environment's achievements*
9. Poursuivre votre action malgré des obstacles de toutes sortes; *Carry on in spite of all sorts of obstacles*
10. Vivre des expériences nouvelles; *Experience new situations*
11. Tirer au clair des situations confuses; *Clarify obscure situations*
12. Mettre en application ce que vous avez découvert; *Apply what you have discovered*

Climate

13. Avoir affaire à un patron compréhensif; *Have an understanding boss*
14. Etre dans un milieu bien organisé et bien équipé; *Be in a well-organized and well-equipped setting*
15. Savoir clairement ce qu'on attend de vous; *Know exactly what is expected of you*
16. Evoluer dans un milieu physique plaisant; *Be in pleasant surroundings*
17. Participer à des activités bien organisées; *Participate in well-organized activities*
18. Etre accepté(e) facilement par les gens avec qui vous travaillez; *Be readily accepted by the people you work with*

Risk

19. Affronter des situations dangereuses; *Face dangerous situations*
20. Vous retrouver dans des situations qui comportent beaucoup d'imprévu; *Find yourself in many unexpected situations*

21. Vous attaquer à des problèmes qui semblent sans solution; *Grapple with problems that seem unsolvable*
22. Entreprendre une action au risque d'en être blâmé(e); *Undertake to act even though you risk being blamed*
23. Prendre beaucoup de risques; *Take many chances*
24. Etre placé(e) dans des situations menaçantes; *Be placed in threatening situations*

Freedom

25. Agir comme vous l'entendez; *Do as you please*
26. Etre votre propre patron; *Be your own boss*
27. Etablir vos propres règles de conduite; *Establish your own rules of conduct*
28. Jouir d'une grande liberté individuelle; *Enjoy great personal freedom*
29. Poursuivre seul(e) les buts que vous vous êtes fixés; *Work alone toward the goals you have set for yourself*
30. Etre indépendant(e) des autres; *Be independent*

Note. Echelle d'évaluation : 1 = presque pas de importance, 6 = très grande importance.
Rating scale: 1 = almost no importance, 6 = very great importance.