

Perceptions of Barriers to Employment, Coping Efficacy, and Career Search Efficacy in People With Mental Illness

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The Barriers to Employment and Coping Efficacy Scale (BECES) and the Career Search Efficacy Scale (CSES) were designed to assist people in their work integration process. The BECES was specifically developed for people with mental illness. Although the CSES was not specifically designed for people with mental illness, its items appear relevant for such clients seeking work. This article reports the construct and convergent validities of these two questionnaires as well as the internal consistency pertaining to each of their subscales. The BECES and CSES demonstrated satisfactory results regarding their validity and reliability with people suffering from mental illness registered in vocational programs. Practical guidelines based on this experience are discussed.

Keywords: barriers to employment, coping efficacy, career search efficacy, mental illness, validation of questionnaires

The unemployment rate for people with mental illness greatly exceeds that of people with physical disabilities, with between 70% and 90% of individuals with severe mental illness (i.e., schizophrenia and other psychotic disorders) being unemployed worldwide (World Health Organization, 2000). Obtaining a job involves multiple planning and decision-making processes. These processes can be experienced as especially challenging for people with mental illness who might feel overwhelmed by the barriers to overcome and consequently feel less

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confident in their ability to meet their occupational goals (Bassett, Lloyd, & Bassett, 2001; Green, Kern, Braff, & Mintz, 2000). As such, Bassett et al. (2001) stressed the importance of people's self-esteem and confidence in their abilities to make decisions to achieve their vocational goals. Others (Banks, 1995; Eden & Aviram, 1993) have found that the longer the unemployment, the higher the perception of barriers to employment and the greater the erosion of self-efficacy and self-esteem.

When people perceive many or significant barriers to their work integration process, their planning and decision-making processes are necessarily altered. Albert and Luzzo (1999) corroborated that "the career-related barriers an individual believes currently exist or may encounter in the future are not necessarily grounded in reality or based on factual information" (p.431), yet these perceptions or beliefs strongly influence one's behaviors, self-efficacy, and overall work integration process. Therefore, potential barriers and their impact on work integration should not solely be assessed from an observable or objective perspective but also from a subjective one that includes individuals' perception in overcoming their barriers.

Currently, there is a paucity of information about clients with mental illness and their perceived barriers in obtaining work (McCrohan, Mowbray, Bybee, & Harris, 1994), not to mention their coping efficacy in overcoming such barriers and their self-efficacy in finding a job. Hence the need to validate with this clientele instruments assessing these work-related concepts. Furthermore, a thorough investigation of potential barriers to employment and coping efficacy in overcoming them is warranted.

Existing Theories and Scales

To better understand the planning and decision-making processes at play for people with mental illness seeking employment, we opted to follow Albert and Luzzo's (1999) suggestions and integrate Bandura's (1977, 1997) self-efficacy theory to the perceived barriers concept. The self-efficacy theory (Bandura, 1977, 1997) is based on the person's beliefs regarding his or her skills to perform a specific behavior. Self-efficacy expectations are either learned from the performance or accomplishment of specific behaviors, from observation (vicarious learning), from verbal persuasion such as encouragement and support from others, or from experiences of emotional arousal (e.g., anxiety or excitement). The self-efficacy theory has already been applied to the vocational domain (Albert & Luzzo, 1999; Betz, 2001; Betz & Hackett, 1981; Lent & Maddux, 1997) as well as to different populations (various ethnic groups, people with disabilities) involved in a work integration process (Lent et al., 2001; Luzzo & McWhirter, 2001; Strauser, 1995; Szymanski & Hershenson, 1998). Certain tools were conceived to assess people's efficacy in specific work-related situations, such as the Barriers-Coping Efficacy Scale (Lent et al., 2001; Lent, Hackett, & Brown, 1998; Luzzo & McWhirter,

2001), the Career Decision Making Self-Efficacy Scale (K. M. Taylor & Betz, 1983), or the Career Search Efficacy Scale (Solberg et al., 1994).

Regarding the Barriers-Coping Efficacy Scale, Luzzo and McWhirter (2001) defined coping efficacy as "the degree to which an individual possesses confidence in her/his ability to cope with or manage complex and difficult situations" (p. 62) and operationalized this concept by asking individuals to rate their degree of confidence in overcoming each barrier listed in the questionnaire. The coping efficacy concept introduces the dimension of how a person reacts or adapts to an unexpected obstacle (Lent et al., 1998). This concept is thus more applicable to the study of contextual factors or influences (e.g., external barriers to employment) that might interfere with goal attainment such as obtaining a job. However, there are also personal or individual barriers to employment. Ribeiro (1999) used the metaphor of the labyrinth to describe the multiple environmental and individual barriers encountered by people with serious mental disorders seeking a job. By taking into account results from studies carried out in different countries, Corbière, Bordeleau, Provost, and Mercier (2002) made a comprehensive list of barriers for people with mental illness seeking a job, including not only environmental elements but also the individual or internal level. In fact, the principal barriers to work integration found were stigmatization, poor socioeconomic state of the labor market, the methods and structures used by the governmental programs or vocational services, medication side effects, and stress.

Notwithstanding the real difficulties met by people with mental illness seeking a job, Albert and Luzzo (1999) stressed that self-efficacy along with perceived barriers to employment are important determinants of a person's motivation to choose a specific career path and to obtain a job. In other words, improving one's self-efficacy and coping efficacy in overcoming potential barriers to employment can significantly facilitate the career decision-making process and result in concrete actions toward obtaining a job.

The Career Search Efficacy Scale (Solberg et al., 1994) can be applied to people of all ages involved in a career or job search process, such as students seeking a job after graduation or individuals hoping to change fields after years of employment. However, the Career Search Efficacy Scale has only been validated with student samples, limiting its generalization to other groups. Solberg et al. (1994) merged the Career Decision Making Self-Efficacy Scale (K. M. Taylor & Betz, 1983) and the Career Search Efficacy Scale along with other measures (interpersonal facility and personal attributes), carried out an exploratory factor analysis, and concluded that the scales of both instruments taken together explained a larger concept now titled *career search self-efficacy*.

Another conceptual model from Arns and Linney (1993) stipulates that a change in vocational status affects one's self-esteem via changes in feelings of self-efficacy. Indeed, on one hand, Regenold, Sherman, and Fenzel (1999) demonstrated in their study that people with severe mental illness who possessed a certain sense of self-efficacy in their job search, as measured by the Career Search Efficacy Scale, were more likely to attain their employment goal. On the other

hand, Betz and Klein (1996) mentioned positive and significant correlations ($p < .001$) between generalized self-efficacy and global self-esteem measures ($.37 < r < .53$). They also reported a positive correlation between the Career Decision Making Self-Efficacy Scale and a measure of global self-esteem irrespective of gender.

In brief, the different concepts such as barriers to employment, coping efficacy to overcome barriers, career search efficacy, and self-esteem reveal strong links at theoretical and empirical levels that allow us to better understand the vocational outcomes. These interrelations could easily be generalized to vulnerable populations such as people with mental illness. However, most of the concepts aforementioned either have not been operationalized or have not been validated with people suffering from mental illness in their work integration process. Consequently, the objectives of this study are threefold, (a) to validate the Barriers to Employment and Coping Efficacy Scale (BECES; Corbière, Laisné, & Mercier, 2000) and the Career Search Efficacy Scale (CSES; Solberg et al., 1994) with French Canadian individuals suffering from mental health problems and registered in vocational programs, (b) to assess the convergent validity of the BECES and the CSES with the Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965), and (c) to further investigate the construct validity of the two instruments in regard to the individuals' work history, namely, their length of absence from the workplace. With respect to the three objectives, we make the following assumptions: (a) The BECES will contain different subscales (external and internal barriers), whereas the CSES will show a similar factor structure to the one described by the authors; (b) a significant positive correlation will be found between the BECES, the CSES, and the RSES subscales as all three questionnaires overlap in terms of concepts assessed; and finally, (c) we expect a negative correlation between the CSES, the BECES, and the length of absence from the workplace.

METHOD

Participants and Procedure

The consenting participants were 254 individuals registered in one of eight vocational programs offered in the greater Montreal area (Quebec, Canada), all of which were taking part in a study involving people diagnosed with a mental disorder seeking a job and spoke and read French. Most of them were French Canadian ($N = 192$; 75.6%), 16 (6.3%) were English Canadian, 11 (4.3%) came from European countries, 13 (5.1%) came from other countries (United States, Africa, China, etc.), and 22 (8.6%) did not mention their culture of origin. The sample comprises 135 women and 119 men, average age of 38.02 years ($SD = 8.73$), with most of the sample ($N = 165$; 65%) being single. As for the educational level, 57 (22.4%) completed some high school or less, 66 (26%) complet-

ed a high school degree, 55 (21.7%) completed a collegial degree, and 71 (28%) attained a university-level education. In terms of mental illness, 93 (36.6%) suffered from a mood disorder, 47 (18.5%) had a diagnosis of schizophrenia or other psychotic disorders, 34 (13.3%) had an anxiety disorder, and 80 (31.7%) had other diagnoses (mainly personality disorders). Regarding the length of absence from the workplace (the number of years since the individual was last employed), 103 (41%) participants were without employment for 1 year or less, 44 (17%) from 1 to 2 years, 45 (18%) from 2 to 5 years, 38 (15%) more than 5 years, 8 (3%) have never worked in the past, and information was not available for 16 participants.

Counselors and job coaches from the eight participating vocational services were approached and asked to recruit participants who would be interested in the study. The three tools aforementioned were part of a battery of questionnaires and cognitive tests given in the context of a work integration study, evaluating participants' work path over the course of 9 months. Participants were physically healthy, able to read and speak French, and able to give informed consent. Once the participants read and signed the comprehensive consent form, a short explanation was given for filling out the questionnaires. When people presented with concentration or reading difficulties, the research assistant offered a break, reformulated the item, or read it out loud.

Measures

Barriers to Employment and Coping Efficacy Scale. The BECES (Corbière et al., 2000), available in French and English languages, stemmed from the list of barriers to employment collected by different authors (Bachrach, 1991; Bassett et al., 2001; Braitman et al., 1995; Corbière et al., 2002; Hill et al., 1998; May & Vieceli, 1983; McCrohan et al., 1994; Rutman, 1994). The questionnaire initially consisted of 35 potential barriers to work integration mentioned by people with mental illness seeking a job. For each barrier, participants are first asked to what extent "in their current situation, could this item represent a barrier to employment?" They answer on a Likert scale (1 = *not likely at all* to 7 = *completely likely*). Second, if the participant does not score 1 to the first question, he or she is invited to evaluate to what extent he or she feels able to overcome this barrier (1 = *not able at all* to 7 = *completely able*). The first question corresponds to the perceptions of the barriers to employment, namely, Barriers to Employment subscale, whereas the second question reveals peoples' self-efficacy to cope with barriers to employment, namely, Coping Efficacy subscale. This first version of the questionnaire was piloted to assess the understanding of the BECES with 50 people with mental illness registered in vocational programs. Given their current experience in trying to integrate into the workplace, participants were also asked if they wished to add other barriers that they considered important to the list. The results from this study allowed the incorporation of

eight additional barriers, such as “difficulties in being punctual” or “pressure related to the job.” The final version thus consists of 43 items. The participants also commented on the presentation of the questionnaire that led to simplifications in its design.

Career Search Efficacy Scale. The CSES (Solberg et al., 1994) is designed to assess the degree of confidence a person has for performing a variety of career search tasks. The scale consists of 35 items; each item begins with the following question: “How confident are you in your ability to...?” Items are rated on a 10-point rating scale from 0 (*very little*) to 9 (*very much*). The authors conducted an exploratory factorial analysis that supported the following four dimensions: job search efficacy (14 items), interviewing efficacy (8 items), networking efficacy (8 items), and personal exploration efficacy (5 items). These scales were significantly correlated with the Career Decision Making Self-Efficacy Scale (K. M. Taylor & Betz, 1983), confirming the instrument’s convergent validity (Solberg et al., 1994). The internal consistency coefficients for each scale were all high, from .87 to .95 (Solberg et al., 1994). However, it is important to mention that many items from the CSES present significant loadings on different factors.

The CSES was independently translated into French by seven bilingual researchers and clinicians working in the psychiatric rehabilitation domain. All seven translations were brought to a meeting where each item was compared until consensus was met. The French version of the Career Search Efficacy Scale was administered at the same time as the BECES to 50 people with mental illness registered in vocational programs. During the data collection, we noticed that most people did not understand what certain terms meant, such as *career values*, *career preferences*, and *societal and personal barriers*, and consequently could not distinguish the nuances between these different terms. The authors of the CSES (Solberg et al., 1994) were contacted regarding Item 25 as well as the specific meaning of the terms aforementioned but to no avail. It was also necessary to adapt the initial version of CSES (Solberg et al., 1994) to Canadian culture and services—specifically Item 14, “join organizations that have a career emphasis,” by defining *organizations* as Human Resources and Development Canada or private and government career counseling programs.

Rosenberg Self-Esteem Scale. The RSES (Rosenberg, 1965) had already been translated and validated in English and French Canadian populations (Vallières & Vallerand, 1990). The RSES refers to the global self-worth of individuals. The participants respond along a 4-point scale ranging from *strongly disagree* (1) to *strongly agree* (4). For the five negatively formulated items, the scores obtained are reversed (4 becomes 1, 3 becomes 2, etc.). According to the validation study, the RSES presents alpha coefficients values between .83 and .90 (Vallières & Vallerand, 1990). The test-retest fidelity is appropriate with a correlation coefficient value of .84. Finally, the confirmatory factor analysis (CFA) results support a unidimensional factorial solution (Vallières & Vallerand, 1990).

Data Analyses

Preliminary descriptive analyses (mean and standard deviation) were carried out on the 43 items from the Barriers to Employment subscale to describe its items as a whole. The SPSS program principal components analyses (PCA) enabled us to undertake factor extraction from the 43 coping efficacy items. PCA with orthogonal (varimax) and oblique (promax) rotations were both applied to the BECES regarding the Coping Efficacy subscale. We chose to use the two types of rotation, orthogonal and oblique, because we made the assumption that the factors emerging from the PCA would be distinct in terms of content but also intercorrelated. Furthermore, Tabachnick and Fidell (1996) mentioned that "just as different methods of extraction tend to give similar results with a good data set, so also different methods of rotation tend to give similar results if the pattern of correlation in the data is fairly clear" (p. 666). If the pattern of correlation is similar using the two types of rotation, the solution from the PCA with varimax rotation will be retained because on one hand it is easier to interpret. On the other hand, "varimax also tends to reapportion variance among factors so that they become equal in importance" (Tabachnik & Fidell, 1996, pp. 666-667). Finally, different indices were considered such as scree plot, eigenvalues, percentage of total variance, and item loadings on each emerging dimension.

CFA were also carried out on the French translation of the Career Search Efficacy Scale (Solberg et al., 1994), which consists of 35 items spread over the following four scales: (a) job exploration efficacy, (b) interviewing efficacy, (c) networking efficacy, and (d) personal exploration efficacy. CFA procedure permits the evaluation of the model's fit with the empirical data by taking into account various statistical indices. Using the EQS software (Bentler, 1995), the estimation method maximum likelihood-robust was carried out to evaluate the model with four subscales. This type of method was used to control the violation of the assumption of multivariate normality; the Satorra-Bentler scaled chi-square index integrates a scale that corrects chi-square statistics. When using CFA procedure in conjunction with the Wald test and the Lagrangian multiplier test (Bentler, 1995), it is possible that a new and more parsimonious model emerges from the empirical data. In this last case, the model that best fits the sample was considered the most valid and was retained (Bacher, 1987).

The internal consistency of each scale of BECES and CSES from PCA and CFA results was assessed using Cronbach's alpha (Cronbach, 1951). Pearson correlations were calculated between the total score of the Barriers to Employment subscale (addition of the 43 items scores, which is divided by 43, range from 1 to 7), all the scales of the Coping Efficacy subscale (Corbière et al., 2000), and all the scales of the CSES (Solberg et al., 1994). Moreover, Pearson correlations were conducted with the RSES to assess the instrument's convergent validity. Finally, by using a MANOVA with Sheffe's post hoc test, we evaluated the potential differences between four groups of participants according to the length of

absence from the workplace (less than 1 year, from 1 year to 2 years, from 2 to 5 years, and more than 5 years) on each subscale of the BECES and the CSES.

RESULTS

Descriptive analyses were carried out on the 43 items from the Barriers to Employment subscale (BECES). In Table 1, the results show mean scores varying from 1.80 (i.e., drug or alcohol consumption) to 4.79 (prolonged absence from the workplace).

A PCA was carried out on the coping efficacy items (BECES). The results indicated a value of 13.26 for the first eigenvalue and accounted for 44.21% of the total variance. Despite the important contribution of the first factor in terms of variance, the eigenvalues for the next four dimensions showed respective values of 1.52, 1.38, 1.09, and 1.01 and explained a substantial percentage of variance (16.7%), for 60.9% of the total variance. Regarding the scree plot, it was possible to observe a break after the first factor and another after the fifth factor. After varimax rotation, the five dimensions showed the following respective values of variance: 16.1, 12.4, 11.4, 10.6, and 10.4 (Table 2). In other words, the initial percentage of variance attributed to each of the factors was more evenly distributed as a result of the rotation (Pedhazur & Schmelkin, 1991). On the other hand, 13 items did not load significantly on one specific factor ($.30 <$) or loaded on more than two factors (see Table 2). These last results were similar with promax rotation and confirm the stability of the BECES factor structure whatever the type of rotation used. Due to space limitations it is not possible to present the complete promax results. More information is available on request from the first author. Consequently, we retained the solution with varimax rotation, which revealed the following five dimensions: self-competence/self-confidence (nine items), external factors (five items), anxiety/amotivation (five items), health (six items), and work adjustment (five items). Even though we noted double loading factors for five items, all others loaded significantly on their respective factor ranging from .42 to .77 (Table 2).

A confirmatory factor analysis was carried out on the following four CSES subscales: job search efficacy (14 items), interviewing efficacy (8 items), networking efficacy (9 items), and personal exploration efficacy (5 items). This first confirmatory analysis did not yield a satisfactory model adjustment (Table 3). In fact, the four adjustment indexes, Non-Normed Fit Index (NNFI), Comparative Fit Index (CFI), robust CFI, and Incremental Fit Index (IFI), were below the threshold of .90 (Bentler, 1995). These results can be explained by the weak loading of items on their respective factors, such as Items 31 and 2, or similar loading of items on different factors, such as Items 19, 35, 16, 28, 22, 8, 20, 7, and 1 (for a description of items, see Solberg et al., 1994, pp. 116-117). Keeping a parsimonious

Table 1
Means and Standard Deviations for the
Items From the Barriers to Employment Subscale

Item	<i>M</i>	<i>SD</i>
1. Physical health problems	2.88	2.05
2. Means of transport	2.89	2.06
3. Lack of motivation or self-determination	3.58	2.05
4. Anxiety or fears	4.35	2.02
5. Poor work experience or background	3.85	2.15
6. Indecision with respect to job opportunities	3.94	2.00
7. Lack of energy	3.81	2.06
8. Lack of education or training	3.43	2.03
9. Loss of unemployment benefits or financial support if you obtain a job	3.04	2.19
10. People think your work plans are unrealistic	2.76	2.00
11. Medication side effects (e.g., hand shaking or tremors)	2.92	2.14
12. Drugs or alcohol consumption	1.80	1.71
13. Lack of work skills	3.79	1.98
14. Lack of social support (e.g., friends, family)	2.96	2.04
15. Lack of self-confidence	4.52	2.05
16. Lack of available jobs in your field	3.74	2.12
17. Low productivity in workplace	3.38	2.04
18. Employers' prejudices about hiring people with mental illness	4.44	2.20
19. Difficulties working with others	3.14	1.98
20. Lack of sleep	3.64	2.24
21. Frequent mood changes	3.27	2.06
22. High unemployment rate	3.92	2.10
23. Difficulties interacting with others	3.24	2.01
24. Difficulties adapting to the demands of a new job	3.65	1.88
25. Lack of employer flexibility (e.g., schedule, productivity)	4.23	2.04
26. Stress related to job search	4.53	1.96
27. Difficulties coping with frequent changes (e.g., schedule) in your future job	3.64	2.09
28. Stressful events (e.g., bereavement, break up)	4.55	2.15
29. Working conditions (e.g., responsibility, tasks)	3.51	2.04
30. Low success rate at previous work experience (e.g., job loss)	3.91	2.18
31. Lack initiative in seeking a job (lack of driving ambition, resourcefulness)	3.45	2.11
32. Job market instability	3.98	2.14
33. Competition in workplace	4.43	2.19
34. Parental obligations (e.g., children, family member)	1.97	1.78
35. Lack of follow-up or therapeutic help when obtaining a job	3.63	2.23
36. Prolonged absence from the workplace	4.79	2.09
37. Interruption in medication	3.90	2.55
38. Lack of coworker support when obtaining a job	4.01	2.10
39. Difficulties in being punctual	2.31	1.95
40. Asserting oneself with coworkers	4.03	2.04
41. Have a good appearance in your job (well groomed)	2.19	1.94
42. Be autonomous in your job	2.82	1.99
43. Pressure related to the job	4.54	1.92

Table 2
Factor Structure (Rotation Varimax) of the Coping Efficacy Subscale

Dimensions	1	2	3	4	5
Self-competence/self-confidence					
Difficulties interacting with others	.71				
Lack of occupational skills	.66				
Difficulties working with others	.64				
Asserting oneself with coworkers	.59				
Poor work experience or background	.59				
Difficulties adapting to the demands of a new job	.58				
Lack of self-confidence	.56		.42		
Low productivity in workplace	.55			.43	
Working conditions (e.g., responsibilities, tasks)	.52				.45
External factors					
Job market instability		.72			
Lack of job opportunities in your field		.72			
High unemployment rate		.72			
Competition in workplace		.59			
Employers' prejudices about hiring people with mental illness		.52			
Anxiety/amotivation					
Anxiety or fears			.76		
Lack of motivation or self-determination			.69		
Indecision with respect to job opportunities			.64		
Stress related to job search			.50		
Low success rate at previous work experience (e.g., job loss)			.44		
Health					
Interruption in medication				.77	
Medication side effects				.67	
Lack of follow-up or therapeutic help when obtaining a job				.53	
Lack of sleep				.52	
Stressful events (bereavement, break up)				.46	
Lack of energy				.43	
Work adjustment					
Difficulties coping with frequent changes (schedule, tasks) in your future job		.42			.66
Be autonomous in your job	.43				.58
Pressure on the job				.57	
Lack of employer flexibility (schedule, productivity, etc.)				.52	
Lack of coworkers support when obtaining a job					.42
Eigenvalues	13.3	1.5	1.4	1.1	1.0
Variance after rotation	16.1	12.4	11.4	10.6	10.4

Note. Saturation rates below .40 were excluded from the table.

Table 3
Results From the Confirmatory Factor
Analysis of the Career Search Efficacy Scale

Models	Adjustment Fit Indices							
	<i>df</i>	χ^2	χ^2/df	NNFI	CFI	Robust CFI	IFI	RMSEA
1. Four factor (35 items)	554	1900.2	3.4	.77	.79	.85	.79	.10
2. Four factor (24 items)	246	650.6	2.6	.88	.90	.94	.90	.08

Note. NNFI = Non-Normed Fit Index; CFI = Comparative Fit Index; Robust CFI = Robust Comparative Fit Index; IFI = Bollen Incremental Fit Index; RMSEA = root mean square error of approximation.

monious model in mind—which considers the Wald test and the Lagrangian multiplier test—a second confirmatory factor analysis was carried out after withdrawing 11 items from the model suggested by Solberg and collaborators (1994). The resulting four-dimension model is composed of the same aforementioned dimensions but with only 24 items (Figure 1) and presents significant adjustment coefficients (Table 3) ranging from .88 to .94 for the NNFI, CFI, CFI robust, and IFI indexes (Joreskog & Sörbom, 1993; Mueller, 1996). The respective values for root mean square error of approximation (RMSEA) (.08) and chi-square/dl (2.6) are also satisfactory (Byrne, 1989; Hofmann, 1995).

The internal consistency coefficients for each scale pertaining to BECES, CSES, and RSES questionnaires are all satisfactory and vary from .73 to .97 (Table 4). For the five dimensions of the Coping Efficacy scale, the correlations were over .60 ($p < .001$) and negative with the Barriers to Employment scale. As for the four dimensions of the CSES, the correlation coefficients were also over .60 and ranging from .26 to .53 ($p < .001$) with the five dimensions of the Coping Efficacy scale and negatively (from $r = -.32$ to $r = -.37$, $p < .001$) with the Barriers to Employment scale. In terms of convergent validity, the self-esteem global score was significantly and positively correlated with the CSES and the Coping Efficacy subscale (from $r = .21$ to $r = .50$, $p < .001$).

The construct validity of the BECES and CSES was further investigated by considering the length of absence from the workplace (less than 1 year, from 1 year to 2 years, from 2 to 5 years, and more than 5 years). MANOVA results showed significant differences between the groups on all subscales from BECES (except on the Anxiety/Amotivation subscale). The tests of between-subjects effects indicated F values ranging from 2.88 ($p < .04$, $df = 3$) to 4.30 ($p < .01$, $df = 3$). With regards to Sheffe post hoc test results, it was possible to observe a significant difference ($p < .02$) between two groups, namely, individuals who were without a job for a longer duration (5 years and more) scored significantly higher on the Barriers to Employment subscale compared to those who were without a job for a shorter duration (from 1 to 2 years). Sheffe post hoc results

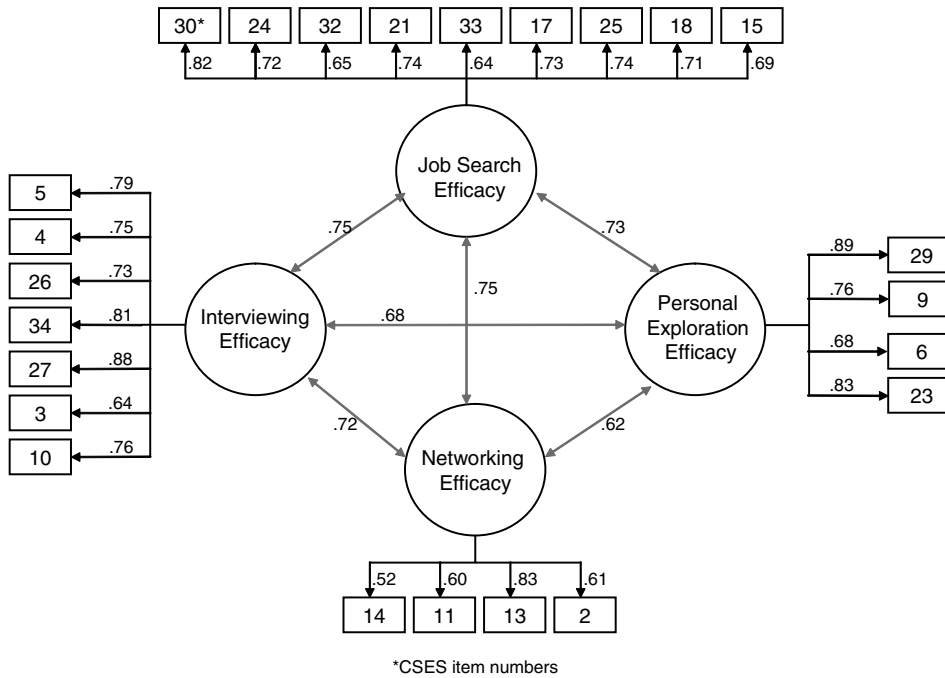


Figure 1. Confirmatory factorial analysis results of the Career Search Efficacy Scale.

also indicated a significant inverse direction ($p < .03$) with the Health subscale from BECES. In other words, individuals who were without a job for a shorter duration (from 1 to 2 years) scored significantly higher on the Coping Efficacy subscale to overcome barriers to health than those without job for the longest duration (Figure 2). As for the CSES, MANOVA results indicated no significant differences between the groups.

DISCUSSION

This study provides initial data on the validity and reliability of the Barriers to Employment and Coping Efficacy scales (BECES; Corbière et al., 2000) and the Career Search Efficacy Scale (Solberg et al., 1994) when used with people presenting with mental illness involved in a work integration process.

The first objective of this study was to validate the BECES and the CSES with French Canadian individuals with mental health problems who were registered in vocational programs. The BECES was conceived specifically for individuals with mental health problems seeking a job. All of the 43 potential barriers to employment stemming from the literature and from client interviews were considered fairly problematic for the participants in this study, with lower mean scores for the item "drugs or alcohol consumption" and higher mean scores for "prolonged absence from the workplace." Regarding the items from the Coping

Table 4
Correlations, Means, Standard Deviation, and Internal Consistency Among the Barriers to Employment and Coping Efficacy Scale (BECES), Career Search Efficacy Scale (CSES), and Rosenberg Self-Esteem Scale (RSES) Questionnaires

Scales	BECES						CSES				RSES	
	BE	SC/SC	EF	A/A	H	WA	GCS	JE	I	N	PE	GS
BECES-BE	.93											
BECES-SC/SC	-.63	.90										
BECES-EF	-.59	.72	.85									
BECES-A/A	-.55	.76	.66	.83								
BECES-H	-.58	.63	.59	.61	.77							
BECES-WA	-.64	.76	.70	.71	.65	.79						
BECES-GCS	-.70	.92	.84	.86	.79	.85	.96					
CSES-JE	-.34	.50	.38	.53	.29	.47	.48	.90				
CSES-I	-.37	.47	.36	.53	.30	.44	.47	.75	.91			
CSES-N	-.32	.48	.33	.50	.27	.42	.45	.75	.72	.73		
CSES-PE	-.34	.38	.26	.40	.29	.38	.38	.73	.68	.62	.87	
CSES-GS	-.38	.52	.39	.56	.33	.48	.51	.94	.88	.85	.84	.97
RSES-GS	-.36	.44	.32	.39	.28	.39	.21	.50	.44	.40	.46	.32
Means	3.57	5.21	4.89	5.07	5.05	4.99	5.26	5.30	5.28	5.38	5.86	5.42
Standard deviations	1.03	1.22	1.46	1.26	1.27	1.28	1.02	1.85	2.00	1.78	1.96	1.65
												6.00

Note. BE = Barriers to Employment; SC/SC = Self-Competence-Self-Confidence; EF = External Factors; A/A = Anxiety/Amotivation; H = Health; WA = Work Adjustments; GCS = Global Coping Scale; JE = Job Exploration; I = Interviewing; N = Networking Efficacy; PE = Personal Exploration; CSES-GS = CSES Global Score; RSES-GS = RSES Global Score. All correlation coefficients are significant at $p < .001$. Bold numbers on the diagonal are alpha coefficients.

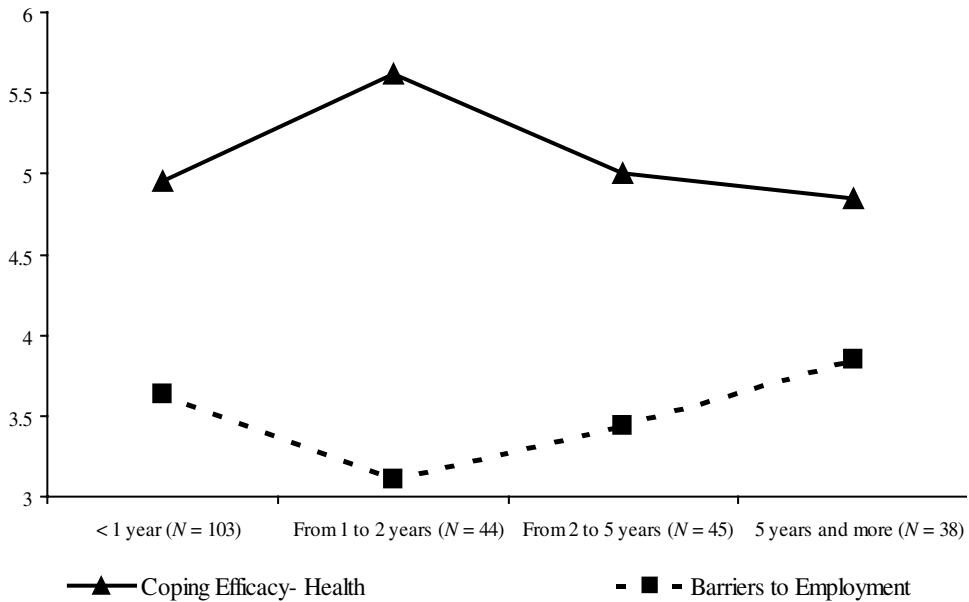


Figure 2. Barriers to Employment and Coping Efficacy Scale means according to the absence from the workplace.

Efficacy subscale, 30 were retained and were significantly spread out on five dimensions, which are as follows: self-competence/self-confidence, external factors, anxiety/amotivation, health, and work adjustment. The PCA results explained approximately 61% of total variance from the five extracted scales, which represent preoccupations specific to this population in their work integration process. Chima (1998) revealed in his study that the main intrapersonal barriers to employment of people with different kinds of disabilities pertain to self-doubt concerns (e.g., feeling inadequate, afraid of mistakes). Interestingly, on one hand, lack of self-confidence and lack of assertiveness with coworkers emerge as important barriers to employment for people with mental illness; on the other hand, the first dimension from the Coping Efficacy subscale gathers together items inherent to intrapersonal and interpersonal self-competence/self-confidence, whereas Chima (1998) differentiated these two dimensions. In the present study, it appears that a comprehensive self-concept transcends the people skills dimension, whether they are intrapersonal or interpersonal.

Furthermore, L. C. Taylor (2001) underlined the lack of experience or lack of education and the shortage of available jobs as the principal barriers to employment for people with mental illness. The same items appeared within the Self-Competence/Self-Confidence and External Factors scales, such as lack of occupational skills and lack of job opportunities in your field, respectively. Mercier, Provost, Denis, and Vincelette (1999) confirmed these results and brought additional information related to the two following subscales: health and work adjustment. The authors identified in their study that problems related to psychiatric

medication and to pressure on the job are often mentioned by different groups (job coaches, employers, and services consumers) involved in the work integration of people with mental illness. In terms of medication, Rutman (1994) stated a variety of side effects that can "detract from the individual's appearance, behaviours and attractiveness as a possible job candidate" (p. 19) or cause stiffness, difficulties in concentration, or tremors in the workplace (Peckham & Muller, 1999). Regardless of the initial situation of people with severe mental illness seeking work, namely, unemployed or employed, Braitman et al.'s (1995) study showed that one of the major obstacles was medication side effects.

In this study, we also aimed at validating the Career Search Efficacy Scale (Solberg et al., 1994) with people with mental illness. Results from the confirmatory factor analysis supported the construct validity of the four subscales, which are as follows: job exploration efficacy, interviewing efficacy, networking efficacy, and personal exploration efficacy. However, a few adjustments were necessary to fit the model to the sample. A total of 11 items were dropped out of the questionnaire. The items that were eliminated had weak factor loadings or several loadings on different factors, as also found in Solberg et al.'s (1994) study. In other words, in spite of the French translation, the items retained in this study correspond to the best factor loadings of Solberg et al.'s study. These results have the advantage of proposing a shorter version of the Career Search Efficacy Scale while still keeping the four conceptual dimensions. Regarding the utilization of the long version (35 items), we suggest that further explanations be attached to the unusual/unknown terms of the CSES (Items 1, 6, 31, and 33). For instance, Item 6, "Identify and evaluate your career preferences," could include the following explanation: "for example, working alone or with a team, outside or in a office, with animals or human beings, and so on."

The two other objectives of this study were to assess the convergent validity of the BECES and the CSES with RSES (Rosenberg, 1965) and to further investigate the construct validity of the two instruments in regard to individuals' work history. As hypothesized, the intercorrelations between the CSES and the Coping Efficacy subscale were significantly positive ($r = .26$ to $r = .53$, $p < .001$), sustaining the convergent validity of the two concepts, coping efficacy to overcome barriers to employment and career search efficacy. Moreover, the CSES and BECES scales were significantly correlated to the Self-Esteem scale, which reinforces the convergent validity of the three tools. With respect to the links between the BECES and the length of absence from the workplace, the results showed that the decline of coping efficacy was also proportional to the length of absence from the workplace. However, we also noticed a higher coping efficacy for participants who had been absent from the workplace between 1 to 2 years compared to those having lost their jobs less than 1 year ago. Even though it is not a longitudinal study, a possible interpretation for these results could be that when people lose their job, their sense of vocational identity decreases as long as they become more socially isolated (Roques, 1993). Afterward, a boost in confidence and optimism might be experienced and new strategies and resources for

finding a job could explain the temporary increase in coping efficacy. If the length of absence from the workplace exceeds 2 years, discouragement appears along with more perceptions of barriers to employment and less confidence in overcoming them. Despite the high correlation coefficients between the CSES and the BECES subscales, it is surprising that no significant mean differences on the CSES were found between individuals with varying lengths of absence from the workplace. These results suggest that the BECES subscales are more sensitive to people's work history compared to CSES subscales.

The main limitation of this study concerns the nature of the sample. The next step in the validation process would be to compare these results using the English version of the BECES and the CSES and assess the predictive validity of the two questionnaires for individuals with mental illness seeking a job. However, we wish to stress the important contribution of theoretical models such as barriers to employment and coping efficacy, which can help further the understanding of the underlying mechanisms behind the work integration process for people with mental illness seeking a job. Indeed, people can perceive barriers to employment and yet feel able to overcome them. When clients encounter difficulties in overcoming barriers, the job coach or counselor can intervene by guiding them toward solutions or strategies. As such, Amundson (2003) suggested the use of the "mind mapping" technique (e.g., brainstorming or clustering) to help clients identify their strengths and barriers related to the attainment of their vocational goals and when needed, to choose effective coping strategies. Lent et al. (1998) proposed five important questions that a counselor or job coach could ask when helping people in the work integration process, such as "If your plan goes awry, what might you do? And how confident are you that you could do it?" (p. 305). After identifying barriers to employment for people with severe mental illness, several authors mention strategies for overcoming them. For instance, Peckham and Muller (1999) asked people with schizophrenia, "What coping strategies have you implemented for entering the workforce?" Some opted for disclosure to their employers regarding their mental illness, others recommended taking everything step by step, using positive self-talk, and accessing social support. In the same vein, Strauser (1995), inspired by Bandura's (1977, 1997) self-efficacy theory, suggested the utilization of sources of efficacy expectations to develop or reinforce the barriers-coping efficacy and career search efficacy. For instance, by observing people with mental illness successfully working in a vocational domain of interest (vicarious experience), people in the work integration process could feel more confident in their abilities and seek a job in a similar domain. In this vein, other studies could be conducted to identify how barriers, coping efficacy, and self-efficacy constructs are interrelated conceptually and empirically for better understanding vocational outcomes.

In this article, we presented evidence of the factorial solution of the BECES and CSES questionnaires administered to individuals with mental illness registered in vocational programs. The reliability, construct, and convergent validities for both questionnaires were demonstrated. With respect to the links between the

length of absence from the workplace and the two aforementioned questionnaires, the results were stronger with the BECES questionnaire than with the CSES. Finally, we proposed guidelines for improving the understanding of the CSES as well as how to use these tools in counseling or vocational settings. The practical applications of the BECES and CSES are very promising: They should help individuals with mental illness seeking a job by providing them with relevant tools and strategies during their work integration process.

Possible avenues for future research could involve assessing individuals with the BECES and CSES prior to beginning a vocational program and at different time intervals to observe changes in coping efficacy and self-efficacy skills. A study assessing the predictive validity of BECES and CSES questionnaires on job acquisition that could also integrate relevant theoretical models such as the planned behavior theory and related concepts (Ajzen, 1991; Millar & Shevlin, 2003) would certainly be warranted.

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