

# Work Accommodations and Natural Supports for Maintaining Employment

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**Objective:** Job tenure for people with severe mental disorders, even for those enrolled in supported employment programs, is typically brief. Few studies to date have investigated the relationship between accommodations and natural supports available in the workplace, and job tenure for this population. The main objectives of this study were to develop and to validate a new measure to describe work accommodations and natural supports available in the workplace and to determine which of them are significantly related to job tenure for participants enrolled in supported employment services. **Methods:** In total, 124 people with a severe mental disorder enrolled in supported employment programs and who obtained only one competitive employment at the 9-month follow-up answered the Work Accommodation and Natural Support Scale (WANSS). They also provided information regarding their disclosure (or non-) of mental disorders in the workplace and the length of their job tenure. **Results:** Confirmatory factor analysis conducted on the WANSS showed 40 items distributed on 6 dimensions (e.g., Schedule flexibility). Correlation results showed that disclosure was significantly related to the number of work accommodations and natural supports available in the workplace. Survival analyses indicated that one WANSS dimension was more salient in predicting job tenure: Supervisor and coworker supports. **Conclusion and Implication for Practice:** The WANSS is a valid and useful tool to assess work accommodations and natural supports available in the workplace that employment specialists could use in their practice.

**Keywords:** job tenure, severe mental disorder, work accommodation, natural support

Job tenure for people with a severe mental disorder is often brief, with studies showing that nearly half of all clients leaving or losing their supported employment positions within 6 months (Becker et al., 1998; Becker, Whitley, Bailey, & Drake, 2007; Corbière, Lanctôt, Sanguirgo, & Lecomte, 2009; Xie, Dain, Becker, & Drake, 1997). Although supported employment (SE) programs are efficient for job search and obtaining competitive employment, many participants appear to have difficulties maintaining their jobs (Mak, Tsang, & Cheung, 2006; McGurk & Mueser, 2006). To better understand this phenomenon, researchers have studied significant factors related to short job tenure or to job termination in people with severe mental disorders. Studies have

mostly documented individual characteristics that partially explain these less than optimal work outcomes such as older age (Wewiorski & Fabian, 2004), severity of psychiatric symptoms (Catty et al., 2008; Cook & Razzano, 2000; McGurk, Mueser, & Pascaris, 2005), having an external locus of control (Lanctôt, Bergeron-Brossard, Sanguirgo, & Corbière, 2013), poor self-esteem (Bassett, Lloyd, & Bassett, 2001), longer duration of unemployment before obtaining competitive employment (Xie et al., 1997) or a combination of the above (Burke-Miller et al., 2006).

Other authors have investigated the person-environment fit and have found that those who obtained employment matching their interests, preferences, or competencies had longer job tenure than

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those who did not obtain such good fit (Bégin & Corbière, 2012; Kukla & Bond, 2012). Finally, studies have also looked at programmatic variables, namely employment specialist competencies (or lack thereof) (Corbière & Lanctôt, 2011; Drake, Bond, & Rapp, 2006) or poor fidelity of some SE programs to the gold standard Individual Placement and Support (IPS) principles (Bond, Becker, & Drake, 2011; Bond, Peterson, Becker, & Drake, 2012) as potential explanations for short job tenure.

Although the variables mentioned above explain part of the variance regarding employment tenure, other important factors need to be considered, such as work environment factors, namely work accommodations and natural supports in the workplace. In fact, inclusion into a workplace is not simply related to the worker's personal characteristics and how they correspond with workplace policies and practices. It is also a function of the organization's response to these individuals as expressed through the attitudes and behaviors of key actors in the workplace, particularly from supervisors and coworkers (Gates & Akabas, 2011).

According to Schultz and Rogers (2011), people with severe mental disorders can and do perform in the workplace when they are provided with carefully constructed work accommodations that take into account social, organizational, and interpersonal issues in developing and implementing such supports. Indeed, people with a work disability, such as a severe mental disorder, may require work accommodations or work adjustments in their workplace (Bond & Meyer, 1999; Fabian, Waterworth, & Ripke, 1993; MacDonald-Wilson, Rogers, Massaro, Lyass, & Crean, 2002). It is important to note that some settings naturally offer many of the work accommodations asked for by clients with severe mental disorders; as such depending on the setting, some accommodations can be considered 'natural supports.' Natural supports are defined as human or technical resources that are available or easily offered in a setting to facilitate integration, acceptance, and satisfaction, and to promote the goals and interests of everyone in a given setting. These include supports at various levels, namely organizational, physical, social, training, services, and community (Trach & Mayhall, 1997). Authors have suggested that, when natural supports are not in place, employers as well as employees with a work disability should be supported to ensure that work accommodations are provided when the demand is reasonable and the accommodations feasible (MacDonald-Wilson et al., 2002). Authors describe reasonable accommodations as those that do not slow down the productivity of the enterprise, cause undue hardship, or generate excessive costs (Granger, 2000; Laflamme & Nadeau, 2011).

The implementation of work accommodations can at times be complicated by the nature of the accommodations required, such as flexibility in working hours, or modifying work assignments (Mancuso, 1995). The work accommodations for mental disorders are distinctly different than those for physical disabilities (Paetzold, 2005). To have a mental disorder implies a complex cluster of impairments that are not physically apparent. In fact, little is known about the nature of work accommodations and natural supports that should be offered to people with severe mental disorders to facilitate their work maintenance. However, several authors suggest considering the following categories of work accommodations or natural supports recognized as useful for people with severe mental disorders: modified or part time schedule because of medication side effects or visits with mental health

professionals during work hours, job restructuring (e.g., redistributing tasks in the work team), adjusting supervisory methods (e.g., communicating assignments or giving some feed-back or support), modified training (e.g., modification of the manner in which training is provided), social skills training (e.g., stress management, assertiveness training), accommodation for memory deficits (e.g., assistive technologies to remind tasks or meetings), working from home (e.g., part time), environmental changes (e.g., reducing noise or other external stimulation) (Banks, Novak, Mank, & Grossi, 2007; Center, 2011; Gates & Akabas, 2011; Schultz, Duplassie, Hanson, & Winter, 2011; Trach & Mayhall, 1997). To our knowledge, no standardized measure of work accommodations and natural supports for people with severe mental illness has yet been developed or validated. Several studies examined work accommodations or natural supports in the workplace for helping people with severe mental disorders maintain their competitive employment (e.g., Fabian et al., 1993; Mancuso, 1993), but a paucity of them have investigated the relationship between work accommodations, natural supports, and job tenure (Fabian et al., 1993; Rollins, Bond, Jones, Kukla, & Collins, 2011). Authors stress that more quantitative research on the efficacy of work accommodations and natural supports in facilitating integration into the workplace is warranted (Rollins et al., 2011; Schultz, Winter, & Wald, 2011).

An important issue related to work accommodation is disclosure of a mental disorder in the workplace. A person with a severe mental disorder needs to disclose, at least somewhat, his or her disability to an employer to initiate a discussion about obtaining work accommodations (Granger, 2000). Several authors found in their reviews that one of the reasons most often cited by professionals and advocates for disclosure as well as people with mental disability is to request job accommodations (Brohan et al., 2012; Jones, 2011; MacDonald-Wilson et al., 2011). The decision whether or not to disclose a disability in the workplace is certainly a dilemma given the multiple potential consequences, both positive and negative (Allen & Carlson, 2003; Kirsh, 2000). MacDonald-Wilson et al. (2011) proposed a long list of consequences to help people make an informed decision before deciding to disclose or not their mental disability in the workplace. For instance, many people prefer not to disclose their mental disorder because of stigma or because their coworkers or supervisor are perceived as unsupportive (e.g., Allen & Carlson, 2003). MacDonald-Wilson et al. (2011) further added that individuals may be able to obtain needed accommodations without disclosing their disability status, if natural supports are present in the workplace. Dalgin and Gilbride (2003) observed that when there is a good person-work environment fit, natural supports tend to be present in the workplace. Banks, Charleston, Grossi, and Mank (2001) mention how social interactions with coworkers and natural supports are critical components of successful supported employment strategies for helping people with severe mental disorders maintain their jobs. Thus, work accommodations should not simply be considered according to their legal definition but rather include a large array of system and individually oriented interventions, as well as natural supports in the workplace.

Work accommodations and natural supports in the workplace for people with severe mental disorders are increasingly being investigated, although no current validated instrument exists and only a paucity of studies have looked at their role in the work

integration in the regular market, and more particularly in facilitating work tenure. Consequently, the goal of this study is to validate a work accommodation and natural supports questionnaire developed by our team for people with severe mental disorders receiving SE services, and to use it to document the accommodations and natural supports used the most and which ones significantly predict job tenure. These will be investigated while considering individual variables as well as the decision of disclosure or not in the workplace.

## Method

### Procedure

Data were collected from a larger Canadian study concerning the work integration of people with severe mental disorders registered in SE programs, located in the Greater Vancouver area in Canada (Corbière et al., 2004). The original study consisted of two phases. Phase 1: all participants answered a battery of questionnaires at their entry into SE programs. Phase 2: participants were interviewed by telephone on their work outcomes 9 months after their Phase 1. Eligibility criteria for participants were as follows: being a registered participant of a SE program, looking for a job, having a psychiatric diagnosis, being 18 years or older, having basic written and spoken English. Participants received compensation for their time and were recruited through their employment specialist, who briefly presented the study to individuals who matched the research criteria. The research project was reviewed and approved by the ethic boards of the University of British Columbia as well as by Vancouver Coastal and Providence Health Authorities and several Hospitals in British Columbia.

### Participants

In total, 366 participants, approached by their employment specialist, accepted and signed a consent form to participate in the study and 82.5% of them agreed to complete the Phase 2 phone interview. Of these, 178 (59%) obtained at least one job. Description of the original sample and the Phase 2 subsample ( $N = 302$ ) are provided elsewhere (see Corbière et al., 2011). For the purpose of this article, we will focus on the 124 (41% of Phase 2 sample) participants who obtained only one competitive job during the 9 month follow-up period. The reason for this is that our intention was to increase our understanding of the role played by work accommodations in helping people with severe mental disorders maintain their first competitive employment. Thus, people who obtained transitional employment ( $n = 21$ ) or who worked at more than one job ( $n = 33$ ), were excluded from analyses. Participants in our study ranged in age from 21 to 60 years ( $M = 39.70$ ;  $SD = 10.84$ ). The participants' level of education included 22 (19.3%) people who had completed middle school or less, 26 (22.8%) who had completed high school, 37 (32.5%) who had attended collegial studies, and 29 (25.5%) who had attended or completed an university-level education. Psychiatric diagnoses were self-reported and grouped into four categories: mood disorders, schizophrenia, anxiety disorders, and other disorders. In particular, 67 (59.8%) reported a diagnosis of mood disorder (e.g., major depression, bipolar disorder), 27 (24.1%) reported a disorder in the schizophrenia spectrum, 9 (8%) reported a diagnosis of anxiety

disorder, and 9 (8%) reported other disorders (e.g., personality disorder, substance related disorder). At Phase 2, 47 participants (37.9%) were no longer employed, whereas 77 individuals (62.1%) had kept their first job. The duration of employment of participants ranged from 1 week to 39 weeks, with an average of 23 weeks ( $SD = 12.33$ ).

## Measures

### Phase I: Baseline Evaluation

**Sociodemographic questionnaire.** A sociodemographic questionnaire was used to gather data on gender, age, educational level, and psychiatric diagnosis.

**Severity of symptoms.** The Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) was used to identify self-reported clinically relevant psychological symptoms. It consists of 53 items covering nine symptom constructs (e.g., Depression, Anxiety, and Paranoid Ideation). For the purpose of the study, we used data collected using the Global Symptom Index, which provides a summary of the severity of the symptoms perceived (global score). Items are rated on a 5-point Likert scale ranging from 0 (*not at all*) to 4 (*extremely*). Coefficient alpha in this study was .97.

### Phase 2: Follow-Up Interview

**Disclosure.** Disclosure was assessed through a single dichotomous item, in which participants were asked if they had, at some point during the work entry process, disclosed their mental illness to the employer.

**Work accommodations and natural supports.** To assess the various work accommodations and natural supports offered to people, we used the Work Accommodation and Natural Support Scale (WANSS) developed by Corbière and Ptasinski (2004). Based on diverse studies and publications (e.g., Bond & Meyer, 1999; Fabian et al., 1993; MacDonald-Wilson et al., 2002), the WANSS consists of 40 items covering various types of supports and work adjustments that may be present in the work environment or that may be provided naturally by the workplace. Considering publications in the domain (Center, 2011; Gates & Akabas, 2011; House, 1981; Rollins et al., 2011; Schultz, Duplassie, et al., 2011), WANSS items have been grouped into six categories: Support from different stakeholders; Presence of a job-coach in the work environment; Supervisor and coworker supports; Training; Schedule flexibility; and Support from the work environment. A complete list of items within each category is provided in Table 1. Items were dichotomous with possible answer as follows: 0 (*no, this accommodation/support is not available at my workplace*) and 1 (*yes, this accommodation/support is available at my workplace*). Participants who answered "yes" were asked to answer another question: "If yes, is it helpful?" Possible answers were 0 (*no, it is not helpful*) and 1 (*yes, it is helpful*). The checklist was designed to be simple, with the intent that it would be more readily adopted by practitioners.

### Data Analysis

Descriptive statistics were used to examine WANSS items and disclosure. Confirmatory factor analysis (CFA) was conducted to

Table 1

*Descriptive Statistics of the Work Accommodation and Natural Support Scale: Dimensions, Items, Availability, Helpfulness, and Correlations With Job Tenure and Disclosure Data (N = 124)*

Work Accommodation and Natural Support Scale		Is this accommodation/support available at your workplace?			If yes, is it helpful?
		Yes	Correlation ( $\phi$ coefficient)		Yes
Items		N (%)	Job tenure (weeks)	Disclosure	N (%)
Support from different stakeholders	(30) Do your coworkers/supervisor provide you with emotional support?	66 (57.4)	.12	.18	57 (84.4)
	(32) Are you provided with a mentor?	33 (28.7)	.06	.11	31 (93.9)
	(37) Do you receive support from your peers?	43 (37.4)	.08	.16	38 (88.4)
	(38) Do you receive support from your family?	79 (69.3)	.07	.12	61 (77.2)
	(39) Do you receive support from your friends?	89 (77.4)	.03	.18	76 (85.4)
	(18) Do you have phone access to your employment specialist during working hours?	54 (49.1)	.03	.10	35 (64.8)
Presence of Job coach	(27) Was your employment specialist present when you were hired?	22 (19.3)	.22*	.19*	18 (81.8)
	(28) Does your employment specialist visit you on the job?	19 (16.7)	.20*	.09	15 (78.9)
	(29) Are there meetings with your employment specialist, your supervisor and yourself?	17 (14.9)	.11	.20*	15 (88.2)
Supervisor and coworker supports	(2) Do your coworkers or supervisor take time in order to assist/ orient you?	87 (76.3)	.12	.07	74 (85.1)
	(12) Does your employer modify his/her expectations of you?	47 (42.7)	.26**	.15	37 (78.7)
	(31) Are you provided with a coworker buddy?	36 (31.3)	.18	.24**	29 (80.6)
	(33) Does your workplace encourage interactions between coworkers?	68 (60.2)	.33**	.30**	62 (91.2)
	(34) Are you provided with feedback from your employer and/or coworker(s)?	98 (86)	.06	.18	84 (85.7)
	(35) Are you receiving rewards or recognition from your supervisor and/or coworker(s)?	69 (61.1)	.28**	.16	60 (87)
	(36) Is your work environment naturally supportive if you need help?	86 (76.8)	.24*	.15	77 (89.5)
	(40) Do you have any accommodations relating to transportation such as provisions for taxi, bus, etc?	21 (18.6)	.21*	.10	18 (85.7)
Training	(1) Are you able to share your position with a coworker (s)?	72 (63.2)	.24*	.18	55 (76.4)
	(8) Can your job tasks be modified?	55 (47.8)	.07	.18	38 (69.1)
	(10) Are you able to exchange work tasks with others?	50 (44.2)	.31**	.23**	44 (88)
	(13) Is your job description clearly defined to you?	88 (77.9)	.18	.16	78 (88.6)
	(9) Are tasks introduced gradually?	60 (52.2)	.38**	.19	48 (80)
	(21) Do you have access to educational resources?	44 (38.6)	.10	.18	36 (81.8)
	(22) Is your training modified for you?	30 (26.3)	.13	-.04	23 (76.7)
	(23) Do you have access to extra training to learn particular skills?	55 (48.7)	.22*	.16	44 (80)
	(24) Are you provided with training in communication skills?	39 (33.9)	.12	.01	30 (76.9)
	(25) Are you trained in the use of self-management tools?	46 (32.1)	.11	.19	32 (88.9)
	(26) Is training provided for coworkers about mental health problems?	17 (16.2)	.21*	.03	11 (64.7)
Schedule flexibility	(11) Do you have access to written instructions in addition to verbal instructions?	61 (53)	-.18	.04	48 (78.7)
	(3) Are you able to have time off without pay?	75 (70.1)	.15	.19	51 (68)
	(4) Are you able to have time off for clinic/medical appointments?	77 (74.8)	.13	.18	54 (70.1)
	(5) Are you able to use vacation/personal time for medical needs?	64 (62.7)	.23*	.13	44 (68.8)
	(7) Are you able to have a flexible schedule?	71 (62.8)	.24*	.19	91 (85.9)
Work environment	(6) Are you able to do part of your work from home?	8 (7)	-.05	.10	2 (25)
	(15) Are you able to make changes in the spatial arrangement of your workplace?	31 (26.7)	.05	.09	27 (87.1)
	(16) Are you able to change the noise levels?	14 (12.2)	-.01	.07	27 (87.1)
	(17) Are you able to change the lighting?	17 (14.9)	.01	.21*	12 (70.6)
	(19) Do you have use of email for instructions and/or support?	32 (27.8)	.18	.05	20 (62.5)
	(14) Do you have access to a laptop, calculator (etc.) to help you organize your tasks?	48 (41.7)	.02	.11	37 (77.1)
	(20) Do you have medication related accommodations such as access to water in the workspace or private space to take medication?	77 (68.1)	-.05	.07	55 (71.4)

\*  $p < 0.05$ . \*\*  $p < 0.01$ .

determine whether the WANSS questionnaire measures a multidimensional construct using Mplus, version 5.21 (Muthén & Muthén, 2009). Results of the CFA conducted in this study were evaluated using the  $\chi^2$  statistic, including its normed version

(Jöreskog, 1969), and other fit indices: the root mean square error of approximation (RMSEA), the non-normed fit index (NNFI), and the comparative fit index (CFI). Suggested cut-off values for these criteria have been proposed (see Schweizer, 2010). Values



for the RMSEA lower than .08 are considered acceptable. Values for the NNFI and CFI equal to or higher than .90 are considered acceptable, while values close to .95 or higher are considered good. Because of the dichotomous nature of the items of which the WANSS is composed, the analysis was conducted using tetrachoric correlations (MacCallum, Zhang, Preacher, & Rucker, 2002). The CFA was conducted using the mean and variance-adjusted weighted least squares estimator (WLSMV), which is the default robust estimator for analyzing categorical indicators (Muthén & Muthén, 1998). Mplus produces three fit indices for analysis with categorical indicators: the CFI, the Tucker-Lewis Index (TLI, also known as NNFI), and the RMSEA. Cronbach's  $\alpha$  was used to assess the reliability of the scale.

Correlations were calculated on demographics, employment status, duration of employment, disclosure, and work accommodations and natural supports categories. Finally, we used survival analysis (Cox Regression model; Cox, 1972) to predict the probability that people in our sample will lose their employment status over time as a function of work accommodations and natural supports as well as disclosure. The dependent variable in hazards model is comprised of two parts: an event indicator and a measure of time from baseline to the event or censoring. In the models presented in this study, the variable for survival time was the duration of employment expressed in weeks and the variable for status of event (job lost) was treated as a dichotomous categorical value. We included in the model all variables that had a significant relation with the survival time, using a backward stepwise procedure. The statistical analyses were performed using SPSS for Windows, release 17.0.

## Results

### Descriptives for Work Accommodations, Natural Supports, and Disclosure

Table 1 also reports descriptive statistics of the WANSS items (i.e., frequencies and percentage distributions). Several WANSS items are reported by participants as frequently available (>70%) such as a feedback on work being provided by the employer and/or coworker(s) (86%), time offered by key actors in the workplace to assist him or her (76.3%) and having access to a naturally supportive work environment (76.8%). Some work accommodations or natural supports are less frequently available, mentioned by less than one third of the sample, such as the provision of a mentor (28.7%), the provision of a coworker buddy (31.3%), and the access to educational resources (38.6%). Furthermore, the possibility to do part of the work from home (7%), the possibility to change the noise level (12.2%), and generally the presence of a job coach in the environment (16.7%) are work accommodations less frequently reported as available by participants in our study.

Overall, 51 participants (45.1%) disclosed their mental illness to their employer. The average implementation of work accommodations (including natural supports) reported by participants who disclosed their mental disorder ( $M = 19.51$ ,  $SD = 7.24$ ) and participants who did not disclose ( $M = 15.69$ ,  $SD = 7.19$ ), is significantly different ( $t(111) = 2.79$ ;  $p < .01$ ), with more work accommodations (including natural supports) available for the former.

### Factor Structure of the WANSS

The 6-factor model of the WANSS was fitted to the total sample ( $N = 124$ ). The global fit indices obtained from our analysis, such as the CFI with a value of .92 and the TLI with a value of .93, showed good values. The RMSEA of .05 indicated that only 5% of the information is not accounted for by the model, which also demonstrated a good fit of our model. Overall, we considered the 6-factor solution of the WANSS to be acceptable, despite a  $\chi^2_{df=78} = 101.77$  and a significant  $p$  value of .04. Subsequent to the factor analysis, a reliability analysis (internal consistency analysis) was performed. The internal consistency reliability (Cronbach's  $\alpha$ ) of the six categories was acceptable (between .61 and .80) (see Table 1).

### Correlations Between Work Accommodations and Natural Supports, Disclosure, and Job Tenure

Table 2 presents the correlations among study variables. In general, work accommodations and natural supports are less frequently reported as being available by older workers ( $r = -.30$ ,  $p < .01$ ), in particular the adjustments related to support from different stakeholders ( $r = -.28$ ,  $p < .01$ ), supervisor and coworker supports ( $r = -.27$ ,  $p < .01$ ), and training ( $r = -.31$ ,  $p < .01$ ). All dimensions of the WANSS are significantly intercorrelated with Pearson's coefficients ranging from .28 to .59 ( $p < .01$ ), except for the presence of a job coach in the work environment.

Disclosure has been found to be positively related to the total score of the WANSS ( $r = .26$ ,  $p < .01$ ). Furthermore, people who disclose their mental illness to the employer are more likely to mention the presence of a job-coach in the work environment ( $r = .22$ ,  $p < .05$ ), to receive supervisor and coworker supports ( $r = .27$ ,  $p < .01$ ), and training ( $r = .20$ ,  $p < .05$ ).

As for the duration of employment, people who kept their job longer during the follow-up phase had disclosed their mental illness ( $r = .29$ ,  $p < .01$ ) and had reported a higher score on the WANSS ( $r = .32$ ,  $p < .01$ ), especially related to the presence of a job coach in the work environment ( $r = .24$ ,  $p < .05$ ), supervisor and coworker supports ( $r = .38$ ,  $p < .01$ ), training ( $r = .25$ ,  $p < .01$ ), and schedule flexibility ( $r = .28$ ,  $p < .01$ ). More specifically, as can be seen in Table 1 (in bold), six items have been found to positively and significantly relate to disclosure, whereas 14 items significantly and positively related to the duration of employment. Of these latter items, seven are included in the Supervisor and coworker supports category of the WANSS.

### Work Accommodations and Natural Supports Predictors of Job Tenure

Survival analysis was performed with the intent to predict the employment status (i.e., job loss) in people with severe mental disorders enrolled in SE programs. The "Supervisor and coworker supports" category of the WANSS was associated with reduced risk of losing the job, after controlling for all other relevant covariates (i.e., disclosure, total score on the WANSS, presence of the job coach in the work environment, training, and schedule flexibility). More precisely, participants with a higher score on that WANSS subscale reduced their risk of losing the job by 21% ( $HR = .79$ ; 95% CI = .72–.88;  $p < .01$ ).

Table 2  
Correlations Among Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Job tenure (weeks)	1													
2. Age	-.12	1												
3. Gender (1 male, 0 female)	.06	-.18	1											
4. Education	-.09	.21*	-.09	1										
5. Diagnosis (1 schizophrenia, 0 other)	.05	-.25*	.15	-.19*	1									
6. Severity of symptoms	-.06	-.16	-.10	-.06	-.27**	1 (.97)								
7. Disclosure (1 yes, 0 no)	.29**	-.16	.07	-.26**	.08	.12	1							
8. Total number of WA	.32**	-.30**	.04	-.19*	.20*	.04	.26**	1						
9. Support from different stakeholders	.10	-.28**	.04	-.13	.20*	-.10	.12	.69**	1 (.64)					
10. Presence of job-coach in the environment	.24*	.08	.01	-.12	.27**	-.10	.22*	.38**	.28**	1 (.80)				
11. Supervisor and coworker supports	.38**	-.27**	.09	-.16	.22*	-.06	.28**	.84**	.50**	.24*	1 (.76)			
12. Training	.25**	-.31**	.02	-.05	.13	.07	.20*	.74**	.48**	.18	.52**	1 (.63)		
13. Schedule flexibility	.28**	-.15	-.14	-.16	.10	.05	.13	.67**	.33**	.13	.59**	.40**	1 (.74)	
14. Work environment	.06	-.17	-.01	.02	-.09	.12	.06	.58**	.35**	.09	.31**	.45**	.35**	1 (.61)

Note.  $N = 124$ . Cronbach's  $\alpha$  in brackets along the diagonal. WA = Work Accommodations.

\*  $p < .05$ . \*\*  $p < .01$ .

To better understand this result and to determine the most significant predictors within that subscale, an additional Cox regression analysis was conducted. In this model, we included the following covariates: disclosure, and the seven items of the WANSS subscale "Supervisor and coworker supports" that are significantly related to the duration of employment (see Table 1). Using the backward stepwise procedure, two items emerged as the most significant predictors: *Are you receiving rewards or recognition from your supervisor and/or coworkers?* and *Are you able to exchange work tasks with others?* More specifically, participants who received more rewards or recognition from the supervisor or from colleagues reduced their risk of losing their job by 62% ( $HR = .38$ ;  $CI = .19-.75$ ;  $p < .01$ ). Similarly, participants who could exchange work tasks with colleagues reduced their risk of losing their job by 62% ( $HR = .38$ ;  $CI = .19-.82$ ;  $p < .01$ ).

## Discussion

The main objectives of this study were to develop and to validate a new measure to describe work accommodations and natural supports available in the workplace, and to examine the impact of work accommodations and natural supports on job tenure for people with severe mental disorders enrolled in SE programs.

First, our results show that job tenure remains an issue for about one third of our selected sample, who did not maintain their competitive employment during this 9 month study, with an average duration of close to 6 months (about 23 weeks). These results are comparable with other studies conducted on job termination, where between 40% to 60% of people with severe mental disorders do not maintain their employment after 6 months (Becker et al., 1998; Bond & Kukla, 2011; MacDonald-Wilson, Mancuso, Danley, & Anthony, 1989; Mak et al., 2006).

Second, we wished to confirm the validity of the instrument used, the WANSS, to measure work accommodations and natural supports available in the workplace. The confirmatory factor anal-

ysis showed that the six subscales of the WANSS were validated for people with severe mental disorders recently obtaining employment, reinforcing the relevance of these conceptual dimensions in the literature (Banks et al., 2007; Center, 2011; Gates & Akabas, 2011; Rollins et al., 2011; Schultz, Duplassie, et al., 2011).

Third, 45% of participants who obtained employment disclosed their mental disorder in the workplace, with disclosure being positively associated with the number and types of work accommodations and natural supports available in their work environment, particularly with the presence of the job coach on site, but also the WANSS subscale entitled Supervisor and coworker supports. Considering these last results, it is not surprising that people who disclosed their disability in the workplace were significantly more likely to have access to more accommodations compared to people who did not disclose. In fact to obtain specific accommodations not naturally available in the workplace, such as having the employment specialist on site or having a coworker buddy, disclosure becomes necessary. Liu, Hollis, Warren, and Williamson's study (2007) highlights that people with severe mental disorders can perceive the support from vocational staff on the job site as advantageous, whereas others are concerned by the fact that the employer might perceive them as incompetent to do their job. Others have recommended to capitalize instead on natural and existing supports to meet each individual's needs rather than intervening too much in the workplace (Corbière & Lanctôt, 2011).

Finally, when more work accommodations and natural supports are available in the workplace, particularly related to supervisor and coworker supports (particularly informational, instrumental and appraisal supports), people with severe mental disorders reduce their risk of losing their job. This result increased significantly when the specific items pertaining to recognition from the supervisor and coworkers, as well as collegial sharing of tasks, were present. In fact, having supportive coworkers and supervisors makes the work environment much more congenial regardless of

disability (Jones, 2009; Rollins et al., 2011). The relationship with supervisors and coworkers in the work integration process has been also highlighted by different authors as important in preventing mental health problems (Coutu et al., 2011), in increasing self-esteem and quality of life (Corbière et al., 2009; Kirsh, 2000) and in predicting one's dedication and engagement in their work-related goals (Villotti, Balducci, Zaniboni, Corbière, & Fraccaroli, 2013). As for sharing of tasks with coworkers as being predictive of job tenure, this result suggests that social aspects of the work environment, namely coworker solidarity and support, are essential ingredients for the work integration of people with severe mental disorders (Fossey & Harvey, 2010).

As we can observe in this study, supervisor and coworker supports in the workplace are seen as facilitators of work tenure of people with severe mental disorders, but could also be considered as a protective factor against potential relapses. Indeed, a well-established theory on the relevance of social support in the workplace, namely the *job demands-resources* model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001), based on the work of Karasek (1979) and Siegrist (1996) (for a review, Corbière, Negrini, & Dewa, 2013), highlights that job resources (including social support from the workplace) buffer the impact of job demands (e.g., work load) on job strain, resulting in lower health impairments. As such, social support in the workplace is an integral part of a healthy workplace, regardless if the worker has a mental disorder or not.

This study presents some limitations. Our measure of disclosure was perhaps overly simplistic (dichotomic: Yes/No). Indeed, we did not obtain information regarding the nature of the disclosure, at times done by the person or the employment specialist, via direct verbal exchanges, written letters or other types of communication. Such variants might influence the relationships with coworkers and supervisors, as well as the type of supports received. Furthermore, even though we used the recommended statistical analysis (i.e., survival analysis) to better understand job tenure of people with severe mental disorders, the evaluation of the job duration remains a conservative estimate (i.e., right hand truncated). Our study did not look at work accommodations in comparison to other potential predictors of job tenure, such as work performance, evocated reasons for leaving employment, or work history. Finally, the validation of the WANSS was done in a Canadian context; specific items could be more or less relevant for other countries in which laws and policies are different. Futures studies are warranted to further investigate these limitations.

In terms of clinical implications, employment specialists should be sensitized and well trained regarding the evaluation of work environments, and means to approaching key actors from the workplace to facilitate clients' work integration and tenure (Drake, Bond, & Becker, 2012; Mak et al., 2006; Xie et al., 1997). Furthermore, the WANSS could be used by employment specialists as a systematic tool for assessing required work accommodations for each of their clients, while taking into consideration their desire to disclose or not their mental disorder to the employer. The implementation of work accommodations can be a delicate topic to address, given that disclosure of a mental disorder is needed and such disclosure can have negative consequences (Banks et al., 2007; Goldberg, O'Day, & Killeen, 2005; Rollins, Mueser, Bond, & Becker, 2002). As mentioned earlier, some work environments already have in place natural supports, with the advantage of there being no need to disclose the mental illness. As such, there is a

group of WANSS items that are relatively infrequently provided and associated with longer tenure (see Table 1) such as introducing tasks one at time to allow people to become accustomed to their employment, giving people extra training to learn particular skills or offering access to educational resources. These last work accommodations are described by Secker and Membrey (2003) as often being natural supports in the workplace as offering needed assistance to learn new tasks should naturally occur in most settings for all employees. Another interesting result in our study useful for employment specialists, corroborating Granger's study results (Granger, 2000), is that only a few people with a severe mental disorder (less than a third) needed work accommodations involving changes on physical aspects of the environment (e.g., noise, lighting, and spatial arrangements).

All these WANSS items represent accommodations and supports that are inexpensive and consequently can easily be negotiated with supervisors or employers to facilitate the work integration of people with severe mental disorders. Several authors mention that the implementation of work accommodations is a social process, implying that employment specialists need to examine existing social interactions and supports in the workplace and build on them to ensure their clients will find the best person-environment fit (Gates & Akabas, 2011; Rogan, Hagner, & Murphy, 1993; Trach & Mayhall, 1997). Finally, results showed that the implementation of work accommodations is linked to disclosure in the workplace. Hence, practical methods are needed to help employment specialists assist their clients in planning and implementing more effective disclosure strategies. Waghorn and Spowart (2010) suggested to put in place a personal information plan consisting of different steps helping the employment specialist and the client decide what is needed to disclose, how, and the client's strengths to put forth. In this model, the workplace accommodations and the utilization of natural supports could ultimately be considered to facilitate the work integration of the target population.

## Conclusion

Work accommodations and natural supports can greatly improve job tenure for people with severe mental disorders, especially supports by coworkers and supervisors. Workplace support stemming from different stakeholders (e.g., coworkers, supervisor, employer, and union) has scarcely been studied despite its clear role in the work integration of people with severe mental disorders (Jones, 2009; Lysaght & Larmour-Trode, 2008; Rollins et al., 2011). More studies are warranted on workplace accommodations and natural supports, particularly in regards to delivering nonstigmatizing supports within the workplace to people with severe mental disorders who have obtained competitive employment.

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