

Original Paper

Occupational Participation of Persons with Schizophrenia: Exploring Issues of Job-Termination in Supported-Employment

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Abstract

Occupational participation in a supported-employment is a rehabilitation strategy to improve both vocational and non-vocational domains of people with psychiatric disabilities, enabling them to access and/or re-enter employment. This study aims to identify the factors associated with unsatisfactory job-termination among the participants of supported-employment to inform future intervention.

A cross-sectional survey was conducted on a group (with a diagnosis of schizophrenia) who participated in a supported-employment program in a large psychiatry institution in Malaysia. Within the first week of job termination, interviews were conducted with three subgroups independently - the participants, the employers and the hospital employment specialists, using the Job-Termination Interview. Factors linked to job-termination and job-accommodation were analysed using univariate and multivariate logistic regression.

Key reasons for job termination were- poor job performance (n = 32; 47.1%), interpersonal issue (n = 31; 45.6%), medical illnesses (n = 30, 44.1%), incompatibilities between work-schedule and environment (n = 30; 44.1%), and job-dissatisfaction (n = 29, 42.6%). Key factor for sustaining job/job-accommodation was "higher pay" (n = 4; 33.3%). Overall, an unsatisfactory trend of job terminations was observed where many (n = 53; 77.9%) quit their job without a ready job at hand. Unsatisfactory job-terminations were associated with three factors -(i). Enrolment in the Individual Placement-Support (IPS) (Adj. OR = 10.70, 95% CI 1.32-86.98, p = 0.012), (ii). Unstable medical

issues (Adj. OR = 22.51, 95% CI 1.74-291.08, $p = 0.003$), (iii). Interpersonal issues (OR = 18.26, 95% CI: 2.24-149.15, $p < 0.001$).

Most participants terminated their jobs in an unsatisfactory manner (77.9%). A high 63.2 percent quit their job without another ready-job at hand, while 14.7 percent were fired. Unsatisfactory job-endings were correlated to, poor job-performance, interpersonal problems and medical illnesses. Occupational re-entry intervention program must be tailored to the individual levels and needs, and be fully integrated within the clinical system to ensure job-person-environment fit, in order to improve job-experience and to lower unfavourable job terminations.

Keywords

supported-employment, sheltered employment, occupational participation, schizophrenia, occupational therapy, job termination, mental health, psychiatry

1. Background

Occupational participation in supported-employment for people living with psychiatric illnesses, has better evidence than conventional vocational rehabilitation intervention (Kinoshita et al., 2013; Marshall et al., 2014). The Schizophrenia Patient Outcomes Research Team recommends, “supported-employment” as one of the eight evidence-based psychosocial treatment modality (Kreyenbuhl et al., 2010). There are several variations of this model, but the Individual-placement support (IPS) model of supported-employment, has been practiced across international regions (Latimer et al., 2007; Campbell et al., 2011; Luciano et al., 2014; van Busschbach et al., 2014; Oshima et al., 2014; Waghorn et al., 2014; Modini et al., 2016). A limitation of supported-employment programs relates to, job tenure –and periods of 70-133 days (Xie et al., 2001), 122-214 days (Burns et al., 2007; Campbell et al., 2011; Burns et al., 2015), or 36.17 weeks (Tsang et al., 2010) have been documented, but in general are too short for sustainable benefits either to patients or employer. In Malaysia, the unemployment status among the people with schizophrenia remain high. Between 2003 to 2005 -51 percent were unemployed, and 16.9 percent has never been employed at all (Aziz et al., 2008). Chee (2009) reported that among the first-episode schizophrenia, a high 50-75 percent unemployment rates. Overall, employment rate among this population, even with functional remission, were below 20 percent (Dahlan et al., 2014).

Supported-employment programs gained momentum as an occupational-rehabilitation strategy for people diagnosed with schizophrenia in Malaysia in the last decade. A cross sectional study undertaken in Hospital Permai (Johor, Malaysia) showed employment rate of 68.3 percent among program-users at 3-months follow-up (Wan et al., 2014); and the hospital’s 2014 internal survey found that 42.6 percent of job placement referrals could secure a job, with 28.5 percent has job terminated along the way. However, not much is known about the issues on job-terminations experienced by supported-employment program users. Thus, this study aims to explore reasons for job-termination, factors associated with unsatisfactory job-termination, and any needed job-accommodations among

participants in a supported-employment program in a Malaysian setting.

2. Method

2.1 Setting & Design

This is a cross-sectional study. A survey was conducted with mentally-ill inpatients diagnosed with chronic Schizophrenia at the Occupational Therapy Complex of Hospital Permai in Johor, i.e. the second largest mental institution in Malaysia. The hospital initiated a hybrid of the supported-employment program since 2009 for long-stayed patients to be gainfully employed. Eight administrative criteria (i.e., zero exclusion criteria, rapid job search, follows individual job preferences, intent on competitive employment, job-development, integration of service with mental health system, provision of benefit counselling, provision of unlimited time and individualised support) were used as guideline and serves as index for fidelity. The model has preliminary evidence of fidelity and effectiveness as in the hospital's unpublished report (Bakar et al., 2015; Chua & Bakar, 2015). This hybrid model, which is essentially sheltered employment was implemented gradually after 2010 into the tampoi hospital. In this model, patients will start work in a sheltered environment (i.e., supervised within the hospital compound, and were offered non-competitive salaries that the hospital can best provide). Competitive employment would be the next graded level if these patients (workers) demonstrated work readiness, and after taking into consideration, the collective assessment of the occupational therapists, employment specialist, psychiatrist, and in consideration of patients' readiness and preferences.

2.2 Subjects

The subjects were participants of supported-employment programs who i) experienced job termination, ii) diagnosed with schizophrenia according to DSM-V, iii) aged between 18 and 65 years, and iv) able to provide consent. Individuals with comorbid diagnosis of mental retardation or dementia were excluded from this study. The sample size was calculated at 65 ("Raosoft Sample Size Calculator"). Patients who fulfilled the inclusion criteria were approached for consent taking within the first week of job termination.

2.3 Measures

Five tools were used - *Positive and Negative Syndrome Scale for Schizophrenia (PANSS)* for symptom severity, the *Modified Global Assessment of Functioning - Revised (mGAF-R)* for level of functioning, the *World Health Organization Quality of Life (WHOQOL-BREF)* for quality of life.

Job-satisfaction was measured with the *Job Satisfaction Survey (JSS)* –which assess 9 dimensions of job satisfaction. The *Job Termination Interview (JTI)* (Becker et al., 1998) - is a structured, valid and reliable instrument assessing job termination of the psychiatrically disabled. It has two part -a) questions on the type of job termination (quit without a read job, fired by employer, lay-off, time-limited position, and reassignment/quit with a ready job), and b) reasons for termination and needed job accommodation(s). The reasons for termination on the JTI are coded as either present or

absent.

2.4 Data Collections

Upon recruitment, the assessors interviewed the participants, employers and employment-specialists separately using the Job Termination Interview (JTI). Data of the participants' socio-demographic, clinical, past vocational and job situation characteristics were obtained from their individual files. Independent interviews were carried with the participant, the employer and the employment specialist. In the event when the participants chose not to disclose his/her mental illness to the employer, the employer would not be interviewed, and data were entered as missing data. The JTI coding pattern is based on the assumption that different job-related problems may be identified from the stakeholders' perspectives (client, employer, employment specialist) and therefore, a problem category is coded as present once any one of the three stakeholders identified the problem category.

2.5 Data Analysis

Version 21.0 of Statistical Package for Social Science (SPSS) software was used to analyse collected data. Multivariate logistic regression was used to identify predictors of unsatisfactory job termination by controlling for other factors. In this study, significance level was set at $p < 0.05$. In view of the nature of the administration of the JTI, analysis on the level of agreement among 3 pairs of respondents was carried out i.e. participant-employer, participant-employment specialist, employer-employment specialist. The kappa statistics was employed and its values were interpreted as followed: < 0 poor agreement, 0-0.2 slight agreement, 0.21-0.40 fair agreement, 0.41-0.60 moderate agreement, 0.61-0.80 substantial agreement, and 0.81-1.00 almost perfect agreement (Landis & Koch, 1977).

3. Results

Table 1 describe the characteristics of 68 participants. The participants were mostly male (79.4%), Malay (60.3%), single (89.7%), and educated up to secondary school level (83.8%). The mean age of the participants was 34.0 ± 7.52 years. There were recruited from outpatient clinic (48.5%), inpatients (29.4%) and community care (22.1%). 50 percent of them were on atypical antipsychotics while the other half were prescribed with either -i) typical antipsychotics (38.2%) or ii) combination therapy (11.8%). Almost all of the participants never received electro-convulsive therapy (ECT) as part of the management (94.1%). Their duration of illness ranges from 1 to 32 years (median = 10.00, IQR = 11.00), and a total number of previous admissions from 0 to 50 admissions (median = 2, IQR = 6.0).

Table 1. Characteristics of Participants with Job-Termination in Supported-Employment Program

Variable	Frequency <i>n</i> (%)	Low	High	Mean(SD)
SOCIO-DEMOGRAPHIC CHARACTERISTICS				
Gender				
Male	54 (79.4)			
Female	14 (20.6)			
Ethnicity				
Malay	41 (60.3)			
Chinese	22 (32.4)			
Indian	5 (7.4)			
Marital status				
Single	61 (89.7)			
Married	4 (5.9)			
Divorced/ Widowed	3 (4.4)			
Level of education				
Primary	6 (8.8)			
Secondary	57 (83.8)			
Tertiary	5 (7.4)			
CLINICAL CHARACTERISTICS				
Service Utilized	Inpatient	Outpatient	Community	
	20 (29.4)	33 (48.5)	15 (22.1)	
Antipsychotics	Typical	Atypical	Combination	
	26 (38.2)	34 (50.0)	8 (11.8)	
PANSS				
Positive	7	23	9 (6.0)	
Negative	7	28	12 (7.0)	
General	16	38	24 (7.0)	
Total	30	78	45 (16.0)	
Modified Functioning (mGAF)	47	87	71 (16.0)	
Quality of Life (WHOQOL-BREF)				
Physical Health	38	94	63 (16.0)	
Psychological	25	94	56 (19.0)	
Social Relationships	0	100	50 (25.0)	
Environment	19	100	56 (16.0)	
PAST VOCATIONAL CHARACTERISTICS				
Work History Past 5 Years				
≥1 month	46 (67.6)			

<1 month	22 (3.4)		
Longest Job Duration (months)	0	156	18 (33.0)
Duration of Unemployment (months)	1	144	6 (22.0)
JOB SITUATION CHARACTERISTICS			
Job Match			
Yes, matched	40 (58.8)		
Not matched	13 (19.1)		
Somewhat matched	15 (22.1)		
Job Satisfaction Survey (JSS)			
Pay	5	24	15 (6.0)
Promotion	8	24	16 (5.0)
Supervision	8	24	17 (8.0)
Fringe Benefits	4	24	16 (5.0)
Contingent Rewards	4	24	17 (7.0)
Operating Conditions	5	24	16 (6.0)
Co-workers	8	24	18 (6.0)
Nature of Work	8	24	19 (6.0)
Communication	4	24	16 (6.0)
Total [Mean (SD)]			149 (27.0)

Note. ECT = Electroconvulsive therapy; PANSS = Positive and Negative Syndrome Scale; modified GAF = modified Global Assessment of Functioning; WHOQOL-BREF = WHO Quality of Life-BREF; IPS = Individual Placement and Support; JSS = Job Satisfaction Survey, IQR = Interquartile Range, SD = standard deviation

They had more negative symptoms compared to positive symptoms (median = 12, IQR = 7.0 versus median = 9, IQR = 6.0). The General Psychopathology subscale score was highest with a median of 24 (IQR = 16.0). The overall mGAF-R (global functioning) score suggested mild symptoms or mild impairment in functioning (Median = 71, IQR = 16.0). Quality of life (via WHOQOL-BREF) was assessed in 4 domains – the physical health domain's median score was highest (Median = 63, IQR = 16.0) and Social Relationships domain was lowest (median = 50, IQR = 25.0). The Psychological and Environment domains both had similar median scores of 56.

Majority of them worked for one month or more in the past five years (67.6%). In terms of number of previous jobs, the maximum was 60 previous jobs and the minimum was never employed at all (Median = 4, IQR = 5.0). Longest job tenure ranged from 0 (not employed) to 156 months (Median = 18, IQR = 33.0). The median score for the duration of unemployment was 6.00 months (IQR = 22.0). More than half of the participants enrolled in the Hybrid model (55.9%) while 44.1% were employed in the IPS model. More than half expressed that their jobs matched their preferences (58.8%), but the rest of them indicated otherwise, i.e., 13 of them revealed a negative job match (19.1%) while 15 said the

jobs did not fully “fit their likings” (22.1%). Participants were generally satisfied with their jobs (Mean = 149, SD = 27), but ambivalent about their satisfaction level across the five domains in the JSS –i.e., Pay (median = 15, IQR 6.0), Promotion (median = 16, IQR 5.0), Fringe Benefits (median = 16, IQR 5.0), Operating Conditions (median = 16, IQR 6.0), and Communication (median = 16, IQR 6.0). However, they were satisfied with the other 4 domains: Supervision (median = 17, IQR 8.0), Contingent Rewards (median = 17, IQR 7.0), co-workers (median = 18, IQR 6.0), and Nature of Work (median = 19, IQR 6.0).

3.1 Reasons and Distribution of Job-Termination

Table 2 presents the reasons for the participants’ job termination. Key reasons included, complaints on quality of work (47.1%), interpersonal problems (45.6%), medical reasons (44.1%), difficulty following work schedule and with environment (44.1%), job dissatisfaction (42.6%), and issues with substance abuse (4.4%).

Table 2. Reasons for Job-Termination (from a Supported-Employment Program)

Reasons	Frequency, <i>n</i>	Percentage, %
Job Termination Interview (JTI)		
Poor Quality of work	32	47.1
Interpersonal conflicts	31	45.6
Medical reasons	30	44.1
Difficult work schedule/environment	30	44.1
Job Dissatisfaction	29	42.6
Mental Illness	26	38.2
Dependability	22	32.4
Transportation issue	19	27.9
To begin a new Job	18	26.5
Family issues	11	16.2
Low Salary	10	14.7
Fear	6	8.8
Lack Supervision	6	8.8
Substance Abuse	3	4.4
Others reasons	23	33.8

(can rate more than one factor).

Table 3 summarizes the distribution of job terminations. More than half of them terminated their jobs in an unsatisfactory manner (77.9%), i.e., quit without a ready job (63.25) or fired by the employer (14.7%). Only a remainder 22.1% experienced satisfactory job termination (22.1%), with another 13.2 percent “quit” for another ready-job.

Table 3. Type of Job-Termination in a Supported-Employment Program

Type of Job Termination	Frequency, <i>n</i>	Percentage, %
Unsatisfactory Job Termination		
Quit without a ready job	43	63.2
<u>Fired</u>	10	14.7
Total	53	77.9
Satisfactory Job Termination		
Lay-off	2	2.9
Time-limited job	4	5.9
Quit for another job	9	13.2
Total	15	22.1

All independent factors were examined using binary logistic regression to identify significant association with unsatisfactory job termination. Only eight factors were significantly association with unsatisfactory job termination: - i.e., Malay ethnicity (OR = 10.80, 95% CI: 1.43-81.33, $p = 0.021$); the vocational rehabilitation model (OR = 4.15, 95% CI: 1.05-16.43, $p = 0.028$); several job termination reasons, i.e., problems with interpersonal relationships (OR = 18.26, 95% CI: 2.24-149.15, $p < 0.001$), medical issues (OR = 16.92, 95% CI: 2.07-138.09, $p < 0.001$), job dissatisfaction (OR = 15.68, 95% CI: 1.92-127.95, $p < 0.001$), having another job (OR 0.06, 95% CI: 0.01-0.22, $p < 0.001$), mental illness (OR 12.50, 95% CI: 1.53-102.00, $p = 0.002$), and work schedule and environment (OR 7.28, 95% CI: 1.49-35.46), $p < 0.05$).

3.2 Associated Factors for Unsatisfactory Job Termination

Table 4 is the multivariate analysis on unsatisfactory job termination. Only three (of the total eight) factors were significantly associated with unsatisfactory job termination. Job problems that increased the odds significantly were- medical illness (by 22.51 times), interpersonal conflict (by 11.47 times), and not having a next ready job (by 12.49 times). The agreement between participant-employer, employer-employment specialist, participant-employment specialist's account for these "reason for job termination" was studied, and the level of agreement between them was computed using kappa statistics.

Table 4. Factors Associated with Unsatisfactory Job-Termination

Variable	Adj. OR	(95% CI)	χ^2 stat. (df) ^a	<i>p</i> value ^a
JTI				
Medical issues	22.51	(1.74, 291.08)	8.71 (1)	0.003
Interpersonal	11.47	(0.88, 149.72)	4.49 (1)	0.034
Not ready for another job	12.06	(1.85, 78.88)	8.14 (1)	0.004

Note. IPS = Individual Placement and Support; JTI = Job Termination Interview,

Adj. OR = Adjusted Odds Ratio / ^aLikelihood Ratio (LR) test.

The employer-employment specialist pair had the highest number of significant agreement ($n=8$). Participants and employers also agreed that having another ready job was not the reason for job termination (80.5% both answered as “no” versus 12.2% both answered “yes”, $k = 0.726$). Participants and employers had poor agreement on --work schedule and environment ($k = 0.130$), need to care for family members ($k = -0.045$), and substance abuse ($k = -0.034$) as reasons or non-reasons for job termination. The highest total disagreement was found in the participant-employer group on interpersonal problems as reason for ending the job (36.6%).

3.3 Job Accommodation

Table 5 shows the breakdown of needed job accommodations from participants who terminated their jobs ($n=12$). One third of them desired higher pay (33.3%), another one-third had issues with job tasks, access to workplace, and/or the workplace staff. They requested for clearer job definitions that match their job titles ($n=2$, 16.7%); provision of transportation and accommodation ($n=2$, 16.7%); understanding from supervisor and colleagues (16.7%), allowance for rest time in between working hours ($n=1$) and better workplace uniform ($n=1$).

Table 5. Needed Job-Accommodations for Those with Job-Termination

Suggested Job Accommodations	Frequency, n	Percentage, %
Given Higher Pay	4	33.3
Job Tasks		
Job tasks match with job title	2	16.7
Effective division of job tasks among staff		
Provision of Access		
Transportation to Workplace	2	16.7
Workplace Accommodation		
Supervisor and colleagues		
More Understanding	2	16.7
Teamwork		
Allowance for Breaks	1	8.3
Improved Workplace Uniform	1	8.3
Total Job Accommodations	12	100.0

4. Discussion

This study shows that a majority of the participants terminated their jobs in an unsatisfactory manner (77.9%): 63.2 percent quit without any other “ready job at hand”, with only 14.7 percent were fired. Termination is high when compared to international studies with a range between 13-28 percent (Cook, 1992; Becker et al., 1998; Mak et al., 2006). Our finding is in line with Cook et al. (1992) who reported 46 percent quitter without a new job ($n= 326$ adults with psychiatric illness); and a Hong Kong study

reported 53 (45% quit, 8% fired) percent of job terminations (Mak, Tsang, & Cheung, 2006).

Secondly, there were multiple job-related difficulties. About half of the participants had issues with i) poor work-quality, ii) interpersonal relationships, iii) medical/mental-illnesses, iv) mismatched work-environment schedule, v) job dissatisfaction, and vi) dependability - which correspond with findings from several studies (Becker et al., 1998; Cook, 1992; MacDonald-Wilson et al., 1991; Wong et al., 2001). Job-dissatisfaction was the top reasons for job termination (Mak et al., 2006), whilst a good past-employment history was associated with satisfactory job termination (Becker et al., 1998). More study in this area is needed as job leaving across studies seems problematic due to the lack of a standardized assessment tool.

Thirdly, participants and employers had high disagreement on issues like “interpersonal problems” as the reason for ending jobs. More participants acknowledged the tense interpersonal issues between themselves and/or supervisors and co-workers, but this was not acknowledged by employer. This needs to be explore in greater depth. Patients also reported social relation as their lowest score on the General functional L scale and perhaps more intervention is needed in this aspect of social-relation. In-fact, poor social attention and active avoidant behaviours predict the intensity of job support needed (Zito, Greig, Wexler, & Bell, 2007), but discriminatory salary and low benefits for people with supported employments are also not uncommon (Cook, 2002); with logistic barriers like lack of transportation and accommodation (Loveland et al., 2007). Thus, counselling- supportive training (e.g., social skill and coping skill training) to address interpersonal skills deficit may be needed. In addition, preference to “not to disclose” their mental status (Corbiere, Villotti, Toth, & Waghorn, 2014), communication with service user and job coaching (Taylor & Bond, 2014; Zito et al., 2007) and/or study on how it impacts relationship at work is needed. in this study, the relationship between clients and employment specialists were not measured.

Fourthly, participants with medical issues (bodily discomfort to comorbidities like diabetes, asthma, etc.) were found to be significantly associated with unsatisfactory job termination. These patient self management and illness management skills (e.g., symptom management, decision-making and active seeking for medical advice) must be included in occupational rehabilitation.

Fifthly, with job accommodation – perhaps legislation regarding employment accommodations for the physically or mentally disabled individuals in Malaysia needs to be in place. Flexible work schedules (Becker et al., 1998; Mak et al., 2006), minimum wages order may need to be revised. In Malaysia, minimum wage of RM900 in the Peninsular of Malaysia, RM800 in east Malaysia is not abided due to the lack of policy enforcement. A study on supported-employment in the local setting found that the average of 3-month total income were RM800 in IPS arm vs a low RM232 in hybrid arm (Chua & Abu Bakar, 2015). More occupational advocacy work is needed to narrow this gap.

Lastly, the Hybrid model (sheltered employment) benefit from the leniency of their employers because they are given priorities over abled-workers in terms of job openings and salaries, with regards to work readiness. Its termed ‘hybrid’ because they do not conform to the full criteria of sheltered employment.

This correlates with the evidence that although service users of other supported-employment programs earned more wages, service users of sheltered employment (hybrid model) actually worked for a longer duration of time (Cimera, 2011). An RCT in the same study site reported that although the IPS program produced significantly higher competitive employment rates than that of the hybrid model, the hybrid model was better in other vocational outcomes in terms of likelihood of employment and higher number of employment days in any type of paid employment (Chua & Abu Bakar, 2015). Nevertheless, hybrid program may be more suitable to the local setting, but it has to be properly defined and its services refined. More research is needed to examine the overall efficacy of the hybrid model unique to this study site.

5. Limitations of Study

There are several limitations. Firstly, the sample size is small and reflected in the wide 95% CI in the multivariate analysis. Secondly, this study did not take into account the job terminations that took place outside of the study period and thus is biased towards participants who ended their jobs earlier. Third, the excess of unsatisfactory job terminations in this study may be related to several unmeasured parameters, e.g., worsening of the participants' clinical symptoms leading to job termination, competency level of employment specialists and the fidelity of the IPS program. Fourthly, the assessment of job difficulties leading to termination of jobs was carried out at one single time point in a retrospective manner and therefore there is a possibility of recall bias and post hoc rationalization.

6. Conclusion

In conclusion, this is a pilot exploratory study which found a high majority of these long-term schizophrenia participants could not hold on to job. They were either terminated, or resigned from their jobs in mostly unsatisfactory manner (77.9%):- where a high 63.2 percent quit without a ready job at hand, while 14.7 percent were fired. The key reasons for the unsatisfactory job-endings were - poor job-performance, interpersonal problems and medical illnesses/ symptoms; and these "job barriers" arise during the job period, not prior to work commencement.

More concerted interdisciplinary collaboration to strive towards a better job-person-environment fit is crucial to lower unfavourable job terminations. Occupational rehabilitation is an important service to enable full participation within a "work environment" for the overall health of persons living with long term psychiatric conditions. Occupational therapy is an essential service in the occupational participation of the long stay psychiatric patients to target towards a better job-person-environment fit for individual patients, and to enable patient self-management towards longer job sustainability and to reduce the burden of care of people living with psychiatric illness. Future research on a larger sample size is warranted to explore indepth issues around reasons for termination, to inform occupational intervention, and also to examine efficacy of suitable occupational hybrid models with cultural adaptations to better rehabilitate people with schizophrenia in their occupational participation.

Ethics

The Medical Research and Ethics Committee (MREC) of the Ministry of Health Malaysia approved the study proposal.

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