



Effect of Education Modules on the Job Dissatisfaction of Teachers in Community-Based Rehabilitation Centres in Kelantan, Malaysia

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ABSTRACT

Objective: The objectives of this study were to determine the effect of a one and a half year educational intervention on the job dissatisfaction of teachers in 30 Community Based Rehabilitation (CBR) centres in Kelantan, Malaysia, and to identify the factors influencing changes in job dissatisfaction following the intervention. **Method:** Ten educational modules were administered to the teachers. A validated Malay version of Job Content Questionnaire (JCQ) was used pre intervention, mid intervention and post intervention. **Result:** Repeated Measure ANOVA revealed there was a statistically significant reduction in the mean of job dissatisfaction ($p = 0.048$). Multiple Linear Regression revealed that co-worker support ($\beta = 0.034$ (95% CI = 0.009, 0.059)), having less decision authority ($\beta = -0.023$; 95% CI: -0.036, -0.01) and being single ($\beta = -0.107$; 95% CI: -0.176, -0.038) were significantly associated with decreases in job dissatisfaction. **Conclusion:** The intervention program elicited improvement in job satisfaction. Efforts should be made to sustain the effect of the intervention in reducing job dissatisfaction by continuous support visits to CBR centres.

KEYWORD

Job dissatisfaction
Educational intervention
Teachers of children with disabilities

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Introduction

Job dissatisfaction among teachers may result in frequent absenteeism, aggressive behaviour towards colleagues and learners, early exits from the teaching profession and psychological withdrawal from the work (1). It also affects the teacher's morale causing poor student's attitude

and learning. Teachers of students in special education programs were found to have high levels of job dissatisfaction resulting in high attrition rates (2, 3). Teachers' belief on their self-efficacy is related with their working performance and positively influenced their job satisfaction (4). A lack of knowledge and skills

may negatively affect work performance and job satisfaction (5).

In Malaysia, some concerns existed about the qualifications of teachers in community based rehabilitation (CBR) centers. Most of these teachers had only secondary school education. Upon their appointment they had undergone a few didactic short training courses in large groups. The CBR in Malaysia were set up by the Ministry of Social Welfare and their main aim to cater for very young and severely affected children with disability, who cannot attend special education. Kelantan is the most north eastern state of Peninsular Malaysia and each of its 7 districts has between 1 and 7 CBR centers (6).

The prevalence of job dissatisfaction among teachers in Community Based Rehabilitation Centres, Kelantan, tested before the educational intervention was 40.3% (7). These high levels of job dissatisfaction may negatively influence the quality and level of care provided to the students of the CBR. The main aim of this study was to determine whether a comprehensive educational intervention comprising of ten trans-disciplinary modules could reduce the job dissatisfaction among the teachers. It was planned in case a change is achieved, to identify the factors influencing the change in job dissatisfaction.

Method

Study Design and participants

An interventional study was conducted between January 2011 and December 2013 among CBR teachers working in Kelantan. All teachers working at 33 CBRs in ten districts in Kelantan were involved in the study. They were invited to participate in this study and written consent was obtained. Sample size calculation using PS software was performed with level of significance set as 0.05 and power $(1-\beta)$ set as 0.80. Standard deviation of mean difference in the job dissatisfaction score between pre and post intervention was estimated at 0.19 (8) and the estimated difference in the job dissatisfaction score between pre and post intervention was

0.10. The minimum required sample size after adding 10% non-response rate was 33.

Intervention

The aim of the intervention was to improve knowledge and skills of the teachers dealing with the disabled in a few key areas. The intervention was conducted as in house training at the university health campus and field visits. It involved a multidisciplinary team including physiotherapy, occupational therapy, psychology, neurology, nutrition, oral health, sexual and reproductive health, emergency and first aid, job stress management, hearing, management of autism and speech therapy. A priority needs assessment was performed through a discussion with selection of senior teachers to identify the required information. Before the start of the program, module developers attended a psychologist-led one-day course on the psychology of behaviour change and on how to deliver the information effectively through interactive sessions. A total of ten modules were created and delivered through various methods such as talks, hands-on sessions, video presentations, group discussions, problem solving and physical exercise sessions by the field experts. Maximal efforts were taken to minimise didactic teaching and maximize interactive teaching following sound teaching techniques. Each module took from 1 day to two weeks to be completed. Refresher courses were conducted for some important modules such as physiotherapy, occupational therapy, sexual and reproductive health and autism. Printed materials including hand-outs, manuals and compact discs with videos showing "how to do it" were given to the teachers so that they might revise and share the information with other colleagues who did not attend the training sessions. Regular field visits to the CBR centres were conducted to monitor the teachers' skills, assist and guide them to utilise the equipment used for rehabilitation and education available at CBRs, assist them in identifying any children who have medical and health problems that required referral for further treatment and management as well as to identify and facilitate any children who required device aids.

Evaluation tool and data collection

The validated Malay version of Job Content Questionnaire (JCQ) (9), a self-administered instrument was used to assess the job dissatisfaction before the intervention, in the middle of the intervention phase (after half of the modules were delivered) and after the intervention was completed (all modules delivered). The variable was calculated using the formulae for the Job Content instrument scale construction provided in the Job Content Questionnaire and User Guide (Table 1).

Table 1: Items and formulation of Job dissatisfaction in Job Content Questionnaire (JCQ)

Psychosocial Job Characteristics	Formulation
Skill discretion:	
<ul style="list-style-type: none"> ▪ Q3 – Learn new thing ▪ Q4 – Repetitive work ▪ Q5 – Require creative ▪ Q7 – High skill level ▪ Q9 – Variety of work ▪ Q11 – Develop own abilities 	[Q3 + Q5 + Q7+ Q9 + Q11 + (5- Q4)] *2
Decision authority:	
<ul style="list-style-type: none"> ▪ Q6 – Allow own decision ▪ Q8 – Little decision freedom ▪ Q10 – Lot of say 	[Q6 + Q10 + (5 – Q8)] x 4
Decision latitude	Skill Discretion + Decision Authority
Psychological job demand	
<ul style="list-style-type: none"> ▪ Q19 – Work fast ▪ Q20 – Work hard ▪ Q22 – No excessive work ▪ Q23 – Enough time ▪ Q26 – Conflicting demand 	[(Q19 + Q20) 3 + (15 – (Q22 + Q23 + Q26)) 2]
Job insecurity	
<ul style="list-style-type: none"> ▪ Q33 – Steady work ▪ Q34 – Job security ▪ Q36 – Future layoff 	[Q33 + Q36 + (5 – Q34)]
Coworkers support	
<ul style="list-style-type: none"> ▪ Q53 – Coworkers competent ▪ Q54 – coworkers interest in me ▪ Q56 – Friendly coworkers ▪ Q58 – Coworkers helpful 	[Q53 + Q54 + Q56 + Q58]
Supervisor support	
<ul style="list-style-type: none"> ▪ Q48 – Supervisor is concerned ▪ Q49 – Supervisor pay attention ▪ Q51 – Helpful supervisor ▪ Q52 – Supervisor good organizer 	[Q48 + Q49 + Q51 + Q52]
Social support	Coworker Support + Supervisor Support

Table 1: Continued

Psychosocial Job Characteristics	Formulation
Physical strain	
<ul style="list-style-type: none"> ▪ V6 – Tired in short period ▪ V11 – Sweaty hand ▪ V12 – Feeling nervous ▪ V13 – Poor appetite 	[(4 – V6)2 + (4 – V11) 2 +(4 – V12) 2 + (4 – V13) 2] / 36
Job Dissatisfaction	
<ul style="list-style-type: none"> ▪ V1 – question on job satisfaction ▪ V2 – advice for friend to take job ▪ V3 – taking job again ▪ V3 – finding new job next year ▪ V5 – job applied 	[(V3 + V5 – V2- V4) * 3 – (V1 × 4) + 40] / 60

Statistical analysis

Data entry and analysis were done using the Statistical Package for Social Sciences (10). Socio-demographic and occupational characteristics of teachers were tabulated for descriptive statistics. One-way repeated measure ANOVA was performed to compare mean scores in job dissatisfaction among teachers of the disabled before the intervention, in the middle of the intervention phase and after the intervention was completed. Analyses were conducted using paired t-test and Bonferroni correction was applied by correcting level of significance. Simple and multiple linear regressions were used to analyse the factors associated with change in job dissatisfaction.

The ethical approval was obtained from Human Ethics Committee, USM on 1st November 2009.

Result

A total of thirty teachers were included in this study. All of them were female and Malays. The majority of the respondents were married (73.3%) and for most of them (93.3%) the highest level of education was secondary school while 6.7% of them were diploma holders. The mean duration of working in their current job was 50.27 months (SD of 34.11). The mean number of children being taken care of in each CBR was 22.5 (SD of 11.99). The detailed results of socio-demographic and occupational characteristic are shown in Table 2.

Table 2: Socio-demographic and occupational characteristics of teachers at Community-Based Rehabilitation centres in Kelantan (n=30)

Variable	n (%)	Mean (SD)
Age (year)	30 (100)	33.47 (8.17)
Sex: Female	30 (100)	
Race: Malay	30 (100)	
Highest education level		
Secondary	28 (93.3)	
Tertiary	2 (6.7)	
Marital Status		
Married	22(73.3)	
Single/Divorcee/Widow	8 (26.7)	
Number of children in their marriage		2.37 (1.90)
Number of household living in the same house		22.50 (11.99)
Number of students taken care of in their centre		5.40 (2.09)
Duration of working (current job- years)		50.27 (34.11)

Table 3: Mean score in job dissatisfaction among teachers at Community Based Rehabilitation (CBRs), Kelantan over time.

Time assessment	Mean (SD)
Pre intervention	0.27 (0.13)
Middle Intervention	0.22 (0.17)
Post Intervention	0.19 (0.10)

Table 4: Mean difference in job dissatisfaction among teachers at Community Based Rehabilitation (CBRs), Kelantan over time.

Comparisons	Mean Difference (95%CI)	p value ^a
Pre intervention – mid intervention	0.04 (-0.04, 0.11)	0.716
Pre intervention – post intervention	0.08 (0.03, 0.13)	0.001
Mid intervention- Post intervention	0.04 (-0.02, 0.10)	0.716

One-way repeated measures ANOVA within group analysis was applied followed by multiple paired t tests. ^a Bonferroni correction was applied by correcting level of significance

Table 5: Association between sociodemographic and occupational factors with change (pre and post intervention) in job dissatisfaction score (n = 30)

Variable	Simple Linear Regression		
	Crude b (95% CI) ^a	t stat	p value
Age	-0.003 (-0.125,0.034)	-1.349	0.188
Education level	0.052 (-0.141,0.184)	0.273	0.786
Marital Status	-0.452 (-0.189,-0.025)	-2.681	0.012
Number of children	-0.386 (-0.042, -0.002)	-2.213	0.035
Number of household	0.182 (-0.01, 0.029)	0.978	0.337
Number of students per school	0.179 (-0.002,0.005)	0.962	0.344
Total working experience (months)	-0.160 (-0.001,0.00)	-0.858	0.398
Duration of working in the current job (months)	0.070 (-0.001,0.001)	0.369	0.715
Total monthly Income (RM)	-0.085 (0.00, 0.00)	-0.449	0.657

^aCrude Regression Coefficient and 95% confidence interval

Table 6: Association between psychosocial factors and change (pre and post intervention) in job dissatisfaction score (n = 30).

Variable	Simple Linear Regression		
	Crude b (95% CI) ^a	t stat	p value
Skill discrete	0.028 (-0.013,0.15)	0.147	0.884
Decision authority	-0.310(-0.030,0.003)	-1.723	0.096
Decision latitude	-0.173 (-0.015,0.006)	-0.928	0.361
Psychological job demand	-0.019 (-0.012, 0.011)	-0.099	0.922
Job insecurity	0.71 (-0.012,0.017)	0.375	0.710
Co-worker support	0.329 (-0.003,0.056)	1.847	0.075
Supervisor support	-0.008 (-0.038,0.036)	-0.042	0.966
Social support	0.201 (-0.009, 0.029)	1.085	0.287
Physical/Psychosomatic strain	-0.010 (-0.401,0.380)	-0.054	0.958

^aCrude Regression Coefficient and 95% confidence interval

One-way repeated measures ANOVA shows that there was a statistically significant reduction in the mean job dissatisfaction score across the

three times (p =0.048). Paired t test analysis revealed there was a significant change in job dissatisfaction score between time 1 (pre

intervention assessment) and time 3 (upon completion of the intervention) (Table 3 and 4).

Simple linear regression analysis revealed that marital status and number of children in their marriage were significantly associated with the change in job dissatisfaction. None of the psychosocial factors was significant (Table 5 and 6).

Multiple linear regression analysis revealed that lack of co-worker support ($p=0.009$), presence of decision authority ($p=0.002$) and being single

($p=0.004$), were the significant predictors for the change/reduction in job dissatisfaction among the study population (Table 7). Single teachers had a bigger reduction of job dissatisfaction than those who were married. An increased of co-workers support score by one unit, increased in the reduction of job dissatisfaction by 0.034. There was an inverse relationship between the presence of decision authority and the change in job dissatisfaction. An increased in the decision authority score by one unit decreased in the reduction of job dissatisfaction by 0.023.

Table 7: Factors associated with change in job dissatisfaction (pre and post intervention) among teachers at Community-Based Rehabilitation centres (CBR), Kelantan.

Variable	Multiple Linear Regression		
	Adjusted b (95% CI) ^a	t stat	p value
Co-worker support	0.034 (0.009, 0.059)	2.838	0.009
Decision authority	-0.023 (-0.036,-0.01)	-3.540	0.002
Marital Status	-0.107 (-0.176,-0.038)	-3.180	0.004

^aAdjusted regression coefficient and 95% confidence interval
Interaction term and multicollinearity were checked and not present
Coefficient of multiple determination (R^2) = 0.504

The coefficient of determination (R^2) of the final model was 0.504. This means that 50.4 % of variation in the change of job dissatisfaction score was explained by these explanatory variables (marital status, co-workers support and decision authority). The remaining 49.6% of the changes was explained by other factors.

Discussion

The findings showed that the intervention program with multiple short courses was able to reduce job dissatisfaction among the teachers in CBR centres. To the best of our knowledge, there was very limited information available in literature on the effect of educational interventions on job satisfaction among teachers taking care of children with disabilities.

There was a longitudinal, quasi-experimental study among staffs working with people with intellectual disabilities in two municipalities in Norway which showed significant rise in job satisfaction and reduction in stress and exhaustion after intervention. However, this study did not include any educational input to

improve the knowledge and skills of the staff (11). Similar results were found in another local study, among automotive assembly workers by (12). The findings were also supported by a study which concluded that providing mental health nurses with a better understanding of serious mental illness and training them in a broader range of interventions improved their knowledge, reduced negative effects of stress and resulted in better attitudes towards the clients (13). Improving knowledge and skills was proven to improve ability to cope, skill to mobilise support at work, create better team work functioning and climate as well as to increase ability to participate in problem solving and decision making. It also instilled motivation, self satisfaction and increased confidence level resulting in better job satisfaction (14).

The positive impact of the intervention on job dissatisfaction in our study was obtained through a few factors. The intervention was carried out in various ways such as interactive workshops, hands-on sessions and monitoring visits. Different ways of teaching show different strengths in delivering the information. A few

studies revealed the effectiveness of using interactive ways of delivering the knowledge. For instance, hands on experience effectively improved the knowledge and attitude on cancer pain management among post-graduate nurses (15). Another study proved that 'hands on' on history taking and physical examination and using videos improved the medical students' confidence in the University of Chicago (16). A Cochrane review showed also quite conclusively that interactive sessions are superior to didactic teaching for achieving behaviour change (17). Comprehensive coverage of important and required information on physiotherapy, occupational therapy, psychology, neurology, nutrition, oral health, sexual and reproductive health, emergency and first aid, job stress management, hearing, management of autism and speech therapy by the field experts also may have contributed to the positive impact. Additional materials such as lecture notes and compact discs comprising hands on sessions were provided for the benefit of the participants and those who did not attend the program. (18) reported that by providing audiocassettes containing mindfulness exercises guidance and a manual during brief mindfulness-based stress reduction intervention program among nurses ensures better understanding and continuous practice of what have been taught in the program. In addition, monitoring visits to the CBRs centre were done as one of our intervention strategies to ensure sustainable effects of the intervention.

In this study, marital status, decision authority and co-workers support were found to have association with the improvement in job satisfaction or reduction in job dissatisfaction. There was very limited study looking at the factors influencing the improvement in job satisfaction following an intervention. This study has shown that those who were married had lesser reductions in job dissatisfaction compared to those who were unmarried. This is in contrast with the expectation that those who are married usually are more matured, thus they are more open to change positively. However, a study proved that marital status was a stressor and a contributing factor to job dissatisfaction (19).

Another study in Czech Republic found that there was no relationship between marital status and job dissatisfaction (20). This study found that, the presence of co-workers support had positive influence on the reduction in job dissatisfaction. Similar finding was seen in an intervention study reported by Shimazu *et. al* (21). They found that the presence of co-worker support was associated with positive emotional wellbeing. Support derived from others at the workplace may contribute significantly in buffering individuals against job dissatisfaction, proactive job search, and noncompliant job behaviours when their job security is at stake. Gathering of teachers from different CBR centres during the intervention provide social support and friendship which may buffer individuals against negative outcomes such as life dissatisfaction associated with job insecurity (11). The finding revealed that the decision authority factor had an inverse relationship with the change in job dissatisfaction. Giving the teachers responsibility to decide reduced the improvement of job satisfaction. This could be explained by the fact that most of them had education level up to secondary schools and lower. Therefore, they have lack of confidence for decisions making. They prefer to follow instruction rather than being liable for any decisions they themselves take. Perceived sense of being powerless, excessive controls and inflexibility due to professional constraints will lead teachers to question their ability to participate in the decision-making process (22). Therefore, these people do not dare to make any decisions. In contrast, another study reported that decision authority was positively related to job satisfaction among educators in special institutions (23).

This study was conducted in a predominantly rural area of a middle income country. The authors feel it is likely that the results can be extrapolated to other similar settings within the same country and also other middle income countries that are using the CBR program. Several of the modules that were prepared have been published and made available for use in other locations (24-28).

We acknowledge some limitations in this study despite the apparent improvement in job satisfaction. The findings may not portray the true effectiveness of the intervention program as there was no controls (CBR teachers who did not participate in the intervention program) involved for comparison.

Conclusion

In conclusion, the intervention program elicited improvement in job satisfaction evidenced by a statistically significant reduction in job dissatisfaction score among CBR teachers following the intervention. Efforts should be made to sustain the effect of the intervention in reducing job dissatisfaction by continuous support visits to CBR centres.

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