

## Job Burnout among Iranian Elementary School Teachers of Students with Autism: a Comparative Study

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**Objective:** Teachers often experience burnout and challenges during their active career. Different studies have shown that those directly involved with teaching children with special needs are more subject to burnout. Due to advance screening tools, more children with autism are now diagnosed and involved in special education. The aim of the present study was to investigate the professional burnout in teachers of children with autism compared to teachers of other children with special needs .

**Methods:** Casual Comparative study design was used for this research. Three self-reported measures (Maslach Burnout Inventory, Job Descriptive Index, and General Health Questionnaire) were distributed; clustered sampling selection was conducted to select participants. Ninety three female teachers (32 teachers of children with autism, 30 teachers in schools for deaf and 31 for teachers of children with mental retardation) from 12 schools located in 4 districts of Tehran were selected. Pearson's and Spearman's correlation statistical tests, analysis of variances and regression were used to analyze the results.

**Results:** Results of the current study revealed a significant difference in criterion validity between the three groups of teachers. The three groups were different in terms of general health ( $p=0.010$ ), emotional exhaustion ( $p=0.005$ ) and depersonalization ( $p<0.001$ ); however considering other variables no significant differences were observed. Comparison between groups showed that the average scores of teachers of children with autism were significantly higher than teachers of deaf and hard of hearing and mentally retarded children in general health, fatigue, and depersonalization variables. No significant differences were observed in average scores of teachers for mentally retarded and deaf children.

**Conclusions:** Female teachers' of children with autism are experiencing significantly higher levels of burnout and general mental health problems compared to teachers of children with other disabilities requiring special education.

**Keywords:** Autism, job burnout, job satisfaction, teachers of special education

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**J**ob burnout is considered as a consequence of long term stressful work conditions amongst human service workers specially teachers, as teaching is measured one of the stressful professions (1). It has been reported that most teachers are experiencing higher level of burnouts compared to other professionals in different areas of employment (2-5).

Job burnout is categorized by a group of symptoms such as emotional exhaustion, depersonalization, and reduced self-efficacy (5, 6). Maslach et al. have named emotional exhaustion as the main definition for burnout that is specified by reduced energy level and extreme fatigue. Depersonalization in teachers is also defined by negative emotions and approach toward students and colleagues. Reduced self-efficacy is defined by teacher's tendency toward having negative self-evaluation and lack of personal accomplishment (5).

Reviews of recent studies indicate that the level of job burnout is related to general physical and mental health (7). Teacher's performance in their social life and

personal relationship (8) and job satisfaction are significant factors in their attitude toward jobs (9). Studies also claim that emotional exhaustion and general health and ability to work are negatively correlated (10) and emotional exhaustion is the main reason for leaving the field by teachers (11). Many teachers also considered emotional exhaustion as the main strong factor in job satisfaction (12).

It can be concluded that job burnout is directly correlated to underlying factors such as pressures caused by job status, working conditions, students' behavior problems, professional level, number of students in the classrooms, lack of resources, relationship with coworkers, and social support received by teachers (13-16).

Consistent with findings of previous research studies, individual factors related to job burnout is directly related to individual characteristics such as age, gender, marital status (17-21), self-efficacy (22, 23) and coping strategies (16) among teachers.

Various studies have indicated that those who are working directly with students with special needs are more exposed to job burnouts (24, 25). Most teachers of special education are experiencing higher level of depression, attrition, psychological dysfunction, and role conflicts (26). In 2002, Stempien and Loeb studied job satisfaction in teachers of special education and compared it to job satisfaction of educators in other areas. The result indicated that teachers of mainstream classrooms are more satisfied with their jobs compared to teachers of students with special needs (27).

Some of the most important factors in job burnout in teachers of special education are excessive amount of direct contact with students, program structure, work overload, and perceived lack of job success (28, 29). In addition to these factors, many of special education teachers have considered difficulties with particular student populations as the main factor related to their job satisfaction level (30, 31). Banks and Necco studied 181 teachers of special education who were working with students with emotional disturbances, mental retardation, and learning disabilities. The results indicated that those who were working directly with students with emotional disturbances were experiencing higher level of job burnout compared to teachers working in other areas of special needs (29).

In recent decades the population of children with autism has increased noticeably and as a result of that the number of students with autism entering schools has also increased (33, 34). The prevalence of autism spectrum disorder published for Iranian students is also similar to the rate reported for general population in other countries specially US and western European countries (35). Children with autism have difficulty in language, communication, social skills and behaviors (36). Teaching children with severe autism traits is reported to be more challenging, even for highly experienced teachers. Many teachers of special needs education have reported being unable to cope with challenges of working with students with autism (37-40).

This study was aimed to investigate if teachers of students with autism are experiencing higher level of burnout compared to teachers of students with mental retardation and deaf students. Therefore, in addition to the main factors associated with job burnouts in teachers of children with special needs, students' demographics, level of job satisfaction and teacher's general mental health is also included in this study.

The main objectives of the empirical part of this study were 1) to explore relations between demographic characteristics including age, level of education and career experiences of teachers with special needs and the level of teacher burnout, job satisfaction and general mental health; 2) to find out the relations between teachers burnout, job satisfaction and general mental health amongst teachers of special needs; 3) and to look at the possibility of any relationship between teachers burnout, job satisfaction and general mental health of teachers of children with autism and those of

teachers of students with mental retardation and deaf students.

## Materials and Methods

The study design utilized for the current study was casual comparative design and based on the geographical situation of the schools in Tehran clustered sampling method was used to select participants. Initial division for the grand city of Tehran was based on four districts including North, West, South and East and one school for each category of special needs (school for deaf, mental retardation, and autism) were chosen. Number of schools nominated for this study reached 12 schools in total and 93 teachers (32 teachers of students with autism, 30 teachers of deaf students and 31 for teachers of children with severe mental retardation) were participated in this study. Since all the teachers of schools for autism are females, therefore only female teachers from other schools were chosen as participants to form a more homogeneous sample for this research.

### *Measures and Data Collection*

The Persian version of three self-reported measures including Job Descriptive Index (JDI) (41, 42), Maslach Burnout Inventory (MBI) (43-45) and General Health Questionnaire (GHQ-12) (46) were distributed among the study sample. Scores from Burnout Questionnaire and General Health Questionnaire were directly correlated with the degree of problems in teachers, while scores from Job Descriptive Index were directly correlated with job satisfactions.

### *Data Analysis*

Data were entered to SPSS-18, and Pearson's and Spearman's correlation statistical tests, analysis of variances, MANOVA, regression and Chi test were used to analyze the results.

## Results

The mean age for teachers of students with autism was 36.81 years ( $SD=5.12$ ), teachers for deaf students 38.33 years ( $SD=5.93$ ) and teachers of students with MR 40.29 ( $SD=4.68$ ). The career background for teachers of children with autism reported to be 8.53 ( $SD=7.59$ ), teachers of deaf students 17.66 years ( $SD=6.53$ ) and teacher of students with MR 19.32 ( $SD=5.35$ ). About 15% percent of teachers of children with autism were holding pre-graduate degree while 75% had graduate degree and level of education for 10 percent of teachers reported to be at a post-graduate level. The education level of teachers of deaf students was 20% at pre-graduate level and 80% at graduate level. The education level of teachers of students with mental retardation was about 22% at pre-graduate level, 71% had graduate degrees and 6.5% had post-graduate education.

The result of chi-square test revealed no significant differences in terms of level of education ( $p=0.525$ ,  $df=4$ ,  $\chi^2=3.2$ ); however, the result of variance analysis

showed significant differences on age ( $F(2, 90) = 3.450, p < 0.05$ , partial  $\eta^2 = 0.071$ ) and career background ( $F(2, 90) = 24.682, p < 0.001$ , partial  $\eta^2 = 0.354$ ). The mean age of teachers of students with autism was significantly lower than the mean age of teachers of students with MR ( $t = -3.478, p = 0.01$ ), but no significant difference was observed in the mean age of teachers of deaf students ( $t = -1.521, p = 0.259$ ). There were also no significant differences between mean age of teachers of students with MR and age of teachers of deaf students ( $t = 1.957, p = 0.15$ ).

On career background, teachers of students with autism had lower background compared to teachers of students with MR ( $t = -10.971, p = 0.000$ ) and deaf students ( $t = -9.135, p = 0.000$ ). However, no significant difference was found between career background of teachers of MR and teachers of deaf students ( $t = 1.656, p = 0.328$ ).

The results indicate no significant correlation between age and education level with job burnouts and job satisfaction variables. However, a significant correlation was found between career background and general health ( $r = -0.216, p = 0.038$ ), emotional exhaustion ( $p = 0.02, r = -0.240$ ), and depersonalization ( $p = 0.001, r = -0.328$ ) with burnouts ( $p = 0.015, r = -0.253$ ) in job satisfaction, but no significant correlation was observed with other variables.

Findings of the current study (table 1) indicate a significant correlation between general health, occupational burnout and most of the items in job satisfaction, except for opportunities for promotion, salaries and benefits. There was also a significant correlation between burnouts and nature of the work ( $p < 0.001, r = -0.436$ ), attitude toward supervisors ( $p = 0.013, r = -0.257$ ) and total scores in job satisfaction ( $p = 0.006, r = -0.284$ ). In addition to these results, a significant correlation was found between the results of

depersonalization in burnouts and nature of the work ( $p < 0.001, r = -0.247$ ), attitude toward supervisors ( $p < 0.001, r = -0.385$ ), opportunities for promotion ( $p = 0.010, r = -0.265$ ), work condition ( $p = 0.017, r = -0.247$ ) and total scores ( $p = 0.002, r = -0.317$ ). However, no significant correlation was observed between self-efficacy in job burnouts and other subscales in job satisfaction.

The relationship between group variable and general health, burnouts and job satisfaction was studied by utilizing Multivariate Analysis of Variance, MANOVA (table 2). A significant difference was observed in criterion variables in group of teachers including autism, MR and deaf students ( $F(20, 162) = 2.598, p \leq 0.001$ ; willk's Lambda  $0.573$ ; partial  $\eta^2 = 0.243$ ). Data analysis of each dependent variable shows a difference between the results regarding general health ( $f(2, 90) = 4.906, p = 0.010$ , partial  $\eta^2 = 0.098$ ), emotional exhaustion ( $f(2, 90) = 5.645, p = 0.005$ , partial  $\eta^2 = 0.111$ ) and depersonalization ( $f(2, 90) = 7.520, p = 0.001$ , partial  $\eta^2 = 0.143$ ), but no differences were observed with other variables in subscale measures.

To identify variables that precisely predict the level of occupational burnout and general health in teachers of children with special needs, multivariate regression analysis was used. Variables including group, job satisfaction, age, career background and level of education were analyzed. The results showed that two variables, including group (teaching children with autism) and job satisfaction, can predict the level of general health and job burnouts more accurately and other variables such as age, career background and level of education were dismissed from the model.

**Table 1: Correlation coefficient between general health and components of job burnout and job satisfaction**

		1	2	3	4	5	6	7	8	9	10	11
1	general health	r	1									
		p										
2	emotional exhaustion	r	0.683**	1								
		p	<0.001									
3	depersonalization	r	0.481**	0.794**	1							
		p	<0.001	<0.001								
4	personal accomplishment	r	-0.228*	-0.281**	-0.240*	1						
		p	0.014	0.003	0.010							
5	nature of the work	r	-0.376**	-0.436**	-0.367**	0.116	1					
		p	<0.001	<0.001	<0.001	0.270						
6	attitude towards supervisor	r	-0.270**	-0.257*	-0.385**	-0.027	0.579**	1				
		p	0.004	0.013	<0.001	0.797	<0.001					
7	relations with co-workers	r	-0.0303**	-0.006	0.000	0.058	0.516**	0.522**	1			
		p	0.002	0.954	0.999	0.582	<0.001	<0.001				
8	opportunities for promotion	r	-0.114	-0.189	-0.265*	-0.135	0.598**	0.510**	0.425**	1		
		p	0.139	0.070	0.010	0.198	<0.001	<0.001	<0.001			
9	salary and benefit	r	-0.134	-0.177	-0.105	-0.158	0.328**	0.221*	0.161	0.359**	1	
		p	0.099	0.089	0.319	0.129	0.001	0.017	0.062	<0.001		
10	work condition	r	-0.242**	-0.189	-0.247*	0.060	0.554**	0.568**	0.514**	0.566**	0.232*	1
		p	0.010	0.069	0.017	0.567	<0.001	<0.001	<0.001	<0.001	0.013	
11	Total job satisfaction	r										0.796*
		p	-0.316**	-0.284**	-0.317**	-0.028	0.800**	0.773**	0.692**	0.804**	0.524**	*
			0.001	0.006	0.002	0.789	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
												1

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

**Table 2: The effect of subgroups on the scores in the measures in the criterion variable**

Predictor variable	Criterion variable	F	Sig	Partial Eta Squared
Group	general health	4.906*	0.010	0.098
	emotional exhaustion	5.645*	0.005	0.111
	depersonalization	7.520*	0.001	0.143
	personal accomplishment	1.957	0.147	0.042
	nature of the work	1.128	0.328	0.024
	attitude towards supervisor	2.923	0.059	0.061
	relations with co-workers	0.466	0.629	0.010
	opportunities for promotion	1.361	0.262	0.029
	salary and benefit	0.576	0.564	0.013
	work condition	0.996	0.373	0.022
	Total job satisfaction	0.546	0.581	0.012

\*p<0.05

**Table 3: The stepwise regression between general health and predictor variables**

Model		Sum of Squares	df	Mean Square	F	Sig	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	SE
1	Regression	68.341	1	68.341	10.069	0.002	0.316	0.100	0.090	2.60527
	Residual	617.659	91	6.787						
2	Regression	124.394	2	62.197	9.967	0.000	0.426	0.181	0.163	2.49801
	Residual	561.606	90	6.240						

1. Predictors: Job satisfaction
2. Predictors: Job satisfaction, autism

**Table 4: The stepwise regression between the mean of emotional exhaustion and predictor variables**

Model		Sum of Squares	df	Mean Square	F	Sig	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	SE
1	Regression	2032.787	1	2032.787	10.828	0.001	0.326	0.106	0.097	13.70174
	Residual	17084.137	91	187.738						
2	Regression	3327.218	2	1663.609	9.482	0.000	0.417	0.174	0.156	13.24542
	Residual	15789.706	90	175.441						

1. Predictors: autism
2. Predictors: autism, Job satisfaction

**Table 5: The stepwise regression between the mean of depersonalization and predictor variables**

Model		Sum of Squares	df	Mean Square	F	Sig	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	SE
1	Regression	633.742	1	633.742	15.197	0.000	0.378	0.143	0.134	6.45774
	Residual	3794.924	91	41.702						
2	Regression	1005.762	2	502.881	13.222	0.000	0.477	0.227	0.210	6.16703
	Residual	3422.905	90	38.032						

1. Predictors: autism
2. Predictors: autism, Job satisfaction

In regard to general health, the results of analysis shown that the observed level of F for job satisfaction was significant (p<0.01) and this variable specifies about 10% of variance differences in general health (R<sup>2</sup>=0.10).The two variables including job satisfaction and group in total specified about 18.1% of variance differences in general health (R<sup>2</sup>= 0.181) and the observed level of F was also significant (p<0.001) (table 3). The efficacy coefficients of the job satisfaction (B=1.203, t=3.079, p=0.003) and group (teaching children with autism) (B=1.639, t=2.997, p=0.004) t indicated that these two variables could confidently predict 99% of the changes regarding to general health variance in teachers (18.1%).

In regard to emotional exhaustion, the results of analysis shown that the observed level of F for criterion variable was significant (p=0.001) and this variable specifies about 10.6% of variance difference in emotional exhaustion variable (R<sup>2</sup>=0.106). The two variables including group and job satisfaction in total specified about 17.4% of variance difference in general health variable (R<sup>2</sup>=0.174) and the level of observed F was significant (p<0.001) (table 4). The efficacy coefficients of the group (teaching children with autism) (B=9.260, t=3.194, p=0.003) and job satisfaction (B=5.626, t=2.716, p=0.008) indicated that these two variables could confidently predict 99% of the changes regarding to emotional exhaustion variance in teachers (17.4%).

In regard to depersonalization, the results of analysis shown that the level of observed F for job satisfaction variable was significant ( $p < 0.001$ ) and this variable specified about 14.3% of the variance difference in depersonalization ( $R^2 = 0.143$ ). The two variables including the group and job satisfaction in total specified about 22.7% of variance difference in general health ( $R^2 = 0.227$ ) and the level of observed F was significant ( $p < 0.001$ ) (table 5). The efficacy coefficients of the group (teaching children with autism) ( $B = 5.184$ ,  $t = 3.840$ ,  $p < 0.001$ ) and job satisfaction ( $B = 3.016$ ,  $t = 3.128$ ,  $p = 0.002$ ) indicated that these two variables could confidently predict 99% of the changes regarding to depersonalization variance in teachers (22.7%).

## Discussion

The main objective was to study the syndrome associated with job burnout, job satisfaction and general health among teachers of special education with regard to students' demographics. Therefore, teachers of three groups of students with special needs including autism, students with MR and deaf students were selected based on such variables as age, career backgrounds and level of education; then, general mental health, occupational burnout, and job satisfaction and the relationship between these variables were studied.

In this study, a significant difference was observed between career background and mental health, emotional exhaustion and depersonalization in job burnout, and attitude toward supervisors in job satisfaction; it was also found that with the increase in career experiences problems with mental health and occupational burnout (emotional exhaustion and depersonalization) decrease. The result of this study revealed no significant difference between age, and level of education with any of the subscales of job burnout, job satisfaction and mental health. This finding is in line with some of the previous studies that indicated no association between age and job burnout (47, 48), but this finding is in contrast with some of the previous studies that indicated younger teachers are more exposed to occupational burnout (49, 50).

This finding is also supported by previous studies indicating that career experience is associated with job burnout in teachers of children with special needs (51). The general indication is that teachers with more experiences are less likely to leave the field; at the same time, these teachers are experiencing higher level of job satisfaction and lower level of job burnout (52-55). Adding to this finding, the current study also revealed a significant association between general health and factors related to job burnouts and most of the other factors in job satisfaction questionnaire. In another words, with the increase in the level of job satisfaction, the level of problems related to health also increase, whereas increase in the level of emotional

exhaustion and depersonalization, increases problems with general health. It is also observed that with the increase in the level of self-efficacy, problems with general health decreases. This finding was also in line with previous studies that highlighted the negative effect of burnout and job dissatisfaction on general health (56).

In regard to relationship between job satisfaction and job burnout, the result of the current study showed a significant relationship between exhaustion and depersonalization in job burnout and job satisfaction. Therefore, with positive view toward job, supervisors, and opportunities for promotion, the level of emotional exhaustion and depersonalization decreases. Other studies in areas of job burnout also showed that teachers with more positive attitude toward their job and work environment are more likely to stay in the field and experience lower level of job burnout (57-58). The main objective for this research was to study the relationship between students' demographics and teachers' burnout, job satisfaction and general health of teachers. The result showed a significant difference in the level of burnout and general health between teachers of students with autism, mental retardation and those of deaf students.

The score average of teachers of students with autism in exhaustion and depersonalization and in problems related to health was significantly higher than those in teachers of children with mental retardation and deafness; However, the same relationship was not observed between teachers of children with mental retardation and teachers of children with hard of hearing and deaf.

This result was in line with previous studies that have indicated that students' demographics are an affective factor in the level of burnout amongst teachers of special education (30, 31). Teachers of students that are exhibiting problems in areas of behavior, emotion and communication are experiencing more stress and experience higher level of burnout compared to teachers of other students with special needs including learning difficulties and mental retardation (30).

Students with autism have problems in communication, social skills and behavior, and many times the extent and nature of these problems create challenges for even experienced teachers (32, 37-40). This fact may explain the higher level of job burnout reported by teachers of students with autism compared to students with MR and deafness in our study sample.

To specify those variables with highest effect on job burnout and general health amongst teachers of students with special needs, data were analyzed using multivariate regression. The result showed that from students' demographics (group of students and job satisfaction), the two variables including the group of students (autism) and job satisfaction were predictive factors in criterion variables including general health and job burnout; and other variables including age, career background and level of education were dismissed from the model.

In fact with increase in job satisfaction, the level of job burnout and problems with mental health decreases and teacher of students with autism compared with teachers of students with MR and deaf students were experiencing higher level of job burnout and problems with general health. The results also indicated that between the two predictive variables in this model, the job burnout was stronger predictor variable for problems in general health and group of students (autism) predict the level of job burnout (emotional exhaustion and depersonalization) more strongly.

One of the limitations faced for the current study was the difference between the career background of teachers of children with autism and teachers of students with MR and deaf students. The explanation for this fact could be that it is only in the last few years that schools for children with autism were established and the research team had no access to teachers with more background in teaching students with autism.

Another limitation can be the gender of study sample. Almost all the teachers in school for children with special needs in Iran were female; therefore the study sample included females only.

## Conclusion

The results of the current study showed that teachers of students with autism are exhibiting more signs of problems related to general health and job burnout compared to teachers of students with other disabilities. With regard to the importance of general health and job satisfaction on teachers' professional performance and other aspects in their personal lives, it is necessary to provide better working condition and increase benefits related to teachers' job to improve job satisfaction amongst teachers of special education. It is also essential to improve the working conditions for teachers of children with autism to avoid problems arising from teachers leaving the field.

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