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A REVIEW OF THE MOTIVATIONAL STIMULATION OF TEACHERS WORKING WITH STUDENTS WITH DISABILITIES: EXAMPLE OF DUHOK PROVINCE*

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Abstract

This study investigated the relationship between the demographic variables, teachers' occupational stress, and motivational stimulation (MS) of disabled pupils. The study was conducted with 118 teachers who worked at five institutes for special education in Duhok city in the north of Iraq. To determine the perspective of the study group, the questionnaire of "Occupational Stress" and the "Motivational Stimulation" was used. Analyzes were made using IBM SPSS 25.0 program. The data obtained from the scales were tested for normality. As a result of the normality test, it was decided to conduct parametric tests. To evaluate the effect of independent variables in terms of the dependent variable, parametric tests, which included "t-test" and "One-way Variance Analysis (ANOVA)", were conducted. "Correlation Analysis" was conducted to reveal the level and significance of the relationship between the variables. Stepwise regression model was used for regression analysis. The results of this study, it was determined that there were statistically significant differences in the motivational stimulation (MS) according to the variables of years of experience, type of disability the teacher was dealing with, nature of job, relations with pupils, and the relations with parent ($p<0.01$). Furthermore, five multiple linear regression models were found to predict the variance in arousal motivation degrees through the variables studied in the study.

Keywords: Disabled pupils, Motivational stimulation, Occupational stress, Special education, Teachers.

Jel Classification: C12, C13.

ENGELİ ÖĞRENCİLER İLE ÇALIŞAN ÖĞRETMENLERİN MOTİVASYONEL UYARIMLARI ÜZERİNE BİR İNCELEME; DUHOK İLİ ÖRNEĞİ

Öz

Bu çalışma, engelli öğrencilerin demografik değişkenleri, öğretmenlerin mesleki stresi ve motivasyonel uyarımları arasındaki ilişkiyi araştırdı. Çalışma Irak'ın kuzeyindeki Duhok şehrinde bulunan beş özel eğitim

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enstitüsünde görev yapan 118 öğretmen ile gerçekleştirilmiştir. Çalışma grubunun bakış açısını belirlemek için "Mesleki Stres" anketi ve "Motivasyonel Uyarım" kullanılmıştır. Analizler IBM SPSS 25.0 programı kullanılarak yapılmıştır. Ölçeklerden elde edilen veriler normallik için test edilmiştir. Normallik testi sonucunda parametrik testlerin yapılmasına karar verilmiştir. Bağımsız değişkenlerin bağımlı değişken açısından etkisini değerlendirmek için "t-testi" ve "Tek Yönlü Varyans Analizi (ANOVA)" içeren parametrik testler yapılmıştır. Değişkenler arasındaki ilişkinin düzeyini ve anlamlılığını ortaya çıkarmak için "Korelasyon Analizi" yapılmıştır. Regresyon analizi için kademeli regresyon modeli kullanılmıştır. Bu çalışmanın sonuçlarında, deneyim yılı, öğretmenin uğraştığı engel türü, işin niteliği, öğrencilerle ilişkileri ve öğrencilerin sahip olduğu beceri değişkenlerine ve ebeveyn ile olan ilişkilere göre motivasyonel uyarılmada istatistiksel olarak anlamlı farklılıklar olduğu tespit edilmiştir ($p<0.01$). Ayrıca, çalışmada incelenen değişkenler aracılığıyla uyarılma motivasyonu derecelerindeki varyansı tahmin etmek için beş çoklu doğrusal regresyon modeli bulunmuştur.

Anahtar Kelimeler: Engelli öğrenciler, Motivasyonel uyarım, Mesleki stres, Özel eğitim, Öğretmenler.
Jel Kodları: C12, C13.

INTRODUCTION

Studies and research in various sciences of knowledge, including social, psychological, educational, biological and economic, rely largely on statistical concepts, whether in collecting or analyzing its data, starting from the stage of design and end of the decision-making stage. Furthermore, (Allam, 2003) believes that the science of statistics is no longer limited to describing the data or making inferences from the samples on the communities; it is no longer a tool only for scientific research but is a systematic way to explain phenomena. Thus, the researcher can find the relationships between the variables included in the phenomenon, determine the degree of association between them, and arrive at honest indicators that benefit in forecasting and analyzing relationships to reach the causative factors for the phenomenon through analytical methods appropriate statistic. In most research and studies, the relationship between variables is analyzed to conclude a formula that describes this relationship. For example, suppose the attention is focused on studying the relationship between two variables. In that case, we use the method of Correlation analysis. However, if it focuses on studying the impact of the contribution of one variable on the other, we use the method of Regression analysis (Al-Shafe'I, 2014).

Multiple linear regression analysis is concerned with the study and analysis of the effect of several independent quantitative variables on the quantitative function. In contrast, the multiple linear regression model is used to predict future values by estimating the model's parameters adopted in the estimated model for prediction purposes (Kadhim, 2009). As a result of the development in methods of estimating parameters, including the least-squares method (OLS), the method of greatest possibility (ML), and other methods of estimation, this allowed researchers to search for other methods (Çerezci and Gökpınar, 2005).

Regression analysis is defined as a mathematical measure of the average relationship between two or more variables, one of which is the dependent variable (the response variable) and one or another variable called the explanatory variable. Relationships of this type are often called regression models (Al-Abadi, 2011).

Regression is one of the most important and powerful statistical methods used in predictive studies conducted to predict a particular phenomenon through a set of factor that contribute to its occurrence. It is considered a Multiple model regression, which measures the effect of more than one variable on the most widely used dependent variable, and it has several methods (Al-Matraif, 1999). Furthermore, the current study depends on the stepwise multiple regression method, pointing out the importance of its use in educational and psychological research to assess the impact of the independent variables based on the dependent variable. As pointed out (Stamovlsis, 2010) on the explanatory power, a stepwise multiple regression model for the change that occurs to the response variable is attributed to the explanatory variables. In this research, an applied example of the study was adopted that includes the most important influences that affect the teacher's stimulation of motivation of pupils with disabilities. Furthermore, the multiple regression model was used as a means to predict the stimulation of motivation. Finally, the model's parameters adopted in the predictive arousal model have been estimated.

Linear regression analysis is considered an advanced statistical method that includes inference accuracy to improve research results through optimal use of data in all applied fields. British scientist Galton Francis was the first to use the concept of regression in biological applications in 1886 to explore some relationships between certain biological variables. It is usually defined as a mathematical measure of the average relationship between two or more variables, in the units of measure adopted in the relationship. This type of relationship is often referred to as a regression model (Osman, 2016).

The multiple regression method is commonly used in educational and psychological sciences. It aims to reduce the number of the many independent variables that affect the phenomenon to the smallest number possible. So that it has a large percentage of explanation for the variation in the values of the dependent variable, thus increasing the predictive power of the dependent variable through a regression model that contains a few independent variables (Assas, 2019). The overall significance of the regression can be tested by testing the null hypothesis, which states that there is no relationship between each of the independent variables and the dependent variable. The alternative hypothesis states that there is significance between the independent variables and the dependent variable, meaning at least one independent variable affects the dependent variable (Osman, 2016).

In general, the importance of the current research can be clarified through the following:

1. Theoretical importance:

The study dealt with a statistical method commonly used in educational and psychological research. The theoretical aspect contributes to indicating the efficiency of the progressive multiple regression model in determining the proportion of the explained variance and the effect of the sample size on the proportion of the explained variance of the progressive regression model.

2. Practical importance:

The study also dealt with an application aspect, where data for the dependent variable and data for the independent variables were used, and statistical application was conducted to reach the coefficient of determination R (the proportion of the variance explained by the multiple regression model). Through the applied side, the factors affecting the variance of the dependent variable were determined when using the multiple linear regression model.

This study attempts to employ a statistical method in predicting the factors that can affect the variation of the teacher's motivational stimulation (MS) for pupils with disabilities. This means employing statistical tools to study special education educational and psychological variables. Furthermore, the study aimed to determine the percentage of the explained variance of the teacher's motivational stimulation of pupils with disabilities according to the multiple linear regression model in the light of several independent variables (demographic and occupational pressures). Accordingly, the research objectives are summarized by answering the following questions:

A. To what extent do demographic factors as independent variables affect the variance of the dependent variable, stimulating motivation for teachers working with students with disabilities in special education institutions?

B. To what extent does occupational stress as an independent variable affect the variance of the dependent variable, stimulating motivation for teachers working with students with disabilities in special education institutions?

C. Is it possible to predict the motivation of the teacher as the dependent variable in the light of demographic variables and occupational stress as independent variables from the teachers' point of view?

1. MATERIALS AND METHODS

The population of this research is the teachers working at five Public Centers for Special Education, all located in Duhok Province in the North of Iraq. Therefore, the population of this research consisted of 172 teachers. The sample group of the research consists of 130 teachers. The research participant group was determined by the "simple random sampling method". A simple random sampling method means that the units in a sample have an equal probability of selection (Özen and Gül, 2007). Accordingly, it aimed to collect data by reaching all (172 individuals) from 5 different special education institutes. Based on the sample size in the survey studies (Salant and Dillman, 2000)

and (Cohen et al., 2002) stated, it could be stated that the number of participants in the study is within the range, and it was pretty sufficient compared to the universe of the study.

Furthermore, it is suggested (Chatfield, 1995), in the regression analysis that the number of observations n is at least equal to four times the number of independent variables. It is suggested (Tabachnick and Fidell, 2013), that the sample size required to build a linear regression model is greater than 50 sightings or eight times the number of independent variables. Therefore, 130 teachers from five institutes for disabled pupils were reached. However, since 12 scale forms were not filled correctly, they were excluded from the research, and the scale forms obtained from 118 teachers were evaluated.

Analyzes were made using IBM SPSS 25.0 program. The data obtained from the scales were tested for normality. As a result of the normality test, it was decided to perform parametric tests. Parametric tests including “t-test” and “One-Way Analysis of Variance (ANOVA)” were performed to evaluate the effect of independent variables in terms of dependent variable. "Correlation Analysis" was conducted to reveal the level and significance of the relationship between the variables. Stepwise linear regression analysis was used to build the model.

2. RESULTS AND DISCUSSION

This research is concerned with investigating the demographic variables of students with disabilities and teachers working with students with disabilities, and the effects of teachers' occupational stress on the motivational stimulation of teachers in Special Education Schools. Various results were obtained based on the questionnaires. The findings were categorized based on their relevance and presented with their subheadings.

Table 1. Normality test results of occupational stress scale and its subscales

SCALE	N	$\bar{X}$	SD	SKEWNESS	KURTOSIS
Occupational Stress Scale	118	21.305	1.81875	0.038	-0.634
Nature of Job	118	14.627	2.00766	0.900	-0.462
Financial Situation	118	13.966	1.69933	0.842	0.568
Personal Treats	118	7.1102	1.92058	0.319	-0.548
Curriculum	118	8.4915	2.13135	0.653	0.894
Relations with Adminis.	118	8.4407	1.98947	0.762	0.585
Relations with Colleges	118	4.5847	0.49487	-0.348	-0.911
Relations with Pupil	118	10.991	1.71218	0.595	-0.145
Parents cooperation	118	6.0508	0.84578	-0.097	-0.600

REWARDS	**118**	**226.79**	**5.84348**	**-0.084**	**-0.491**

Sd = Standard Deviation

Table 2. Normality test results of the motivational stimulation scale

Scale	N	$\overline{X}$	SD	Skewness	Kurtosis
Motivation Stimulate.	118	226.7966	5.84348	-0.084	-0.491

As seen in Table 1 and Table 2, the skewness and kurtosis values of the scale were found between +1.5 and -1.5. Thus, it was seen that normality was provided. As (Tabachnick et al., 2007), stated that skewness and kurtosis values in the range of +1.5 to -1.5 can be interpreted as a normal distribution (George ve Mallery, 2010). It was decided that these values also provided the assumptions for correlation analysis.

2.1. Findings Regarding the Demographic Variables of Teachers

Table 3. Distribution of participants by years of service(X_1)

Years of experience	N	%
Less than five years	39	33.1
Between five and ten years	61	51.7
More than ten years	18	15.2
Total	118	100.0

The distributions in Table 3. showed that 51.7% of all used samples of the participants represented between five and ten years of experience, while 33.1% represented less than five years of experience. Moreover, only 15.3% represented More than ten years of experience.

Table 4. Distribution of the research group according to the qualification variable (X_2)

Qualification	N	%
Diploma	20	16,9
Bachelor	98	83,1
Total	118	100

The qualification variable, which is among the key variables in teachers' occupational stress and their motivational stimulation of teachers, was statistically analyzed, and its results are provided in Table 4. The results in Table 4 revealed the relative dominance of the bachelor qualification in the sample distribution with 83.1% ($N = 98$). Only 16.9% ($N = 20$) of teachers have a diploma certificate. This is

a good indicator, as the higher level of educational qualification is interested in teaching disabled pupils in special education institutes.

Table 5. Distribution of participants by type of disability they deal with (X_3)

Type of disability	N	%
Hearing disability	42	36
Visual disability	27	23
Mental disability	49	42
Total	118	100

The distribution of the type of disability the teacher deals with is presented in Table 5. As given in Table 5, the research participants were statistically categorized based on the type of disability they were dealing with (the type they teach). The distribution comprises 35.6% hearing disability, 22.9% visual disability, and 41.5% mental disability.

2.2. Findings Regarding the Occupational Stress of Teachers

Table 6. The mean score levels of the participants' views on occupational stress

	Subscale	$\overline{X}$	Sd
X_4	Nature of Job	21.305	1.818
X_5	Financial Situation	14.627	2.007
X_6	Personal Treats	13.966	1.699
X_7	Curriculum	7.110	1.920
X_8	Relations with Administration	8.491	2.131
X_9	Relations with Colleges	8.440	1.989
X_{10}	Relations with Pupil	4.584	0.494
X_{11}	Parents cooperation	10.991	1.712
X_{12}	Rewards	6.050	0.845
	Total Scale	95.567	8.865

The results of occupational stress are presented in Table 6 It was seen that the least agreed-upon subscale was “Relations with Pupil", with (a mean score of 4.584 and a standard deviation of 0.494). Additionally, the most agreed-upon subscale was “Nature of Job" (a mean score of 21.305 and a standard deviation of 1.818). The rest of the items ranged between these two means. However, it was important to mention that the differences were not major for most items.

2.3. Finding Regarding the Motivational Stimulation of Teachers

Table 7. Average scores of participants' views on motivational stimulation

Scale	N	$\overline{X}$	Sd
Motivational Stimulation scale	118	226.796	5.843

The questionnaire elements for measuring the motivational stimulation of the participants were analyzed, and the results, in terms of mean and SD, were presented in Table 7 Generally, the mean was 226.796, with a standard division of 5.843.

2.4. Effects of Independent Variables on Dependent Variables

It was difficult to develop the best regression model before the advent of ready-made statistical packages for what they require. Calculation operations take time and effort, but now with the presence of this software, it has become easy. Find the best regression model out of the many that can be built that describe the relationship between the independent variables and the dependent variable, depending on the software package (SPSS) statistical package for social sciences. For example, a multiple regression model has been found for our study on X_{13}, and its symbol (Motivational Stimulation) represents (y) the dependent variable, where $X_4, X_5, X_6, X_7, X_8, X_9, X_{10}, X_{11}, X_{12}$: the independent variables.

In the beginning, we followed the usual method (Enter), i.e., entering all the variables into the form, noting that the package provides other options for choosing the best multiple regression model. We will deal with one of them later, which is (Stepwise method), a method proposed by (Efroymson, 1960) that suggests inserting the variables one by one in contrast to the enter method (the exclusion of the variables that become ineffective in the presence of the rest of the variables). By returning to the usual method, we obtained the results summarized in the tables below:

Table 8. Model summary for regression

Model	R	R Square	Adjusted R square	Std. Error
	0.985[a]	0.970	0.968	1.042

a. Predictors: (Constant), $X_{12}\ X_9\ X_2\ X_7\ X_{10}\ X_5\ X_6$

Table 9. The result of ANOVA for regression model

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3876.612	8	484.576	445.702	0.000
	Residual	118.507	109	1.087		
	Total	3995.119	117			

a. Dependent Variable: X_{13}

b. Predictors: (Constant), X_{12} X_9 X_2 X_7 X_{10} X_5 X_6

Table 10. The results of coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t		Collinearity Statistics	
Independent variables	B	Std. Error	Beta		Sig.	Tolerance	VIF
(Constant)	280.306	15.31		18.309	0		
X_4	-1.354	0.629	-0.421	-2.152	0.034	0.007	140.77
X_5	-0.434	0.533	-0.149	-0.813	0.418	0.008	123.38
X_6	8.168	1.268	2.375	6.44	0	0.002	499.86
X_7	-5.094	0.653	-1.674	-7.804	0	0.006	169.15
X_9	-0.046	0.051	-0.016	-0.905	0.368	0.919	1.089
X_{10}	-17.349	2.069	-1.469	-8.386	0	0.009	112.78
X_{12}	-7.278	0.983	-1.053	-7.403	0	0.013	74.412

a. Dependent Variable: X_{13}

We note through the ANOVA analysis Table 9 the rejection of the tested hypothesis, where the (F) value (Fcal = 445.702) conjugate statistic df. (8, 109) Furthermore, $P < 0.001$ indicates the significance of the partial regression coefficients, meaning that the independent variables combined have a significant effect on the regression or that at least one of the model parameters has a significant effect. However, the important for us, all model parameters are significant. For this reason, the significance of all parameters is tested in Each form separately until it is accepted. The question that arises is: What is the benefit, then, of the F-test procedure? Suppose we are going to test each parameter separately. In that case, the answer is: if we accept the hypothesis in the F-test, we will stop at this point and will not continue because we will reject the model altogether. If we reject the hypothesis, it is necessary for the command to test the significance of each partial parameter.

From Table 10 (coefficients), we note the insignificance of only two partial coefficients of the model and the significance of Six coefficients, respectively, X_2, X_4, X_6, X_7, X_{10}, X_{12} at significance level $\alpha < 0.05$.

From Table 8, we note an increase in the value of the square of the multiple correlation coefficient (0.970), as well as the adjusted R square 0,968, and an increase in the value of the simple correlation coefficients between the dependent variable and all the independent variables. At the same time, a decrease in the partial correlation coefficients between the dependent and independent variables. This is one of the multiple linear correlation indicators. In order to verify the matter, the variance inflation factor (VIF) was calculated as shown in Table 10 It indicates that six variables exceed the value (10), which confirms that they are linked in a linear relationship. Namely, the variables X_4, X_5, X_6, X_7, X_{10}, X_{12}, and if we look in-depth at the essence of these Variables, we find logic in the multiplicity between these variables; for example, the variable X_4 refers to the Nature of Job. It is normal to be associated with the variable X_5, the Financial Situation. The first part depends on calculating the second, as well as X_6, the Personal Treats of Learners is related to the variable X_7, the curriculum. By referring to the correlation matrix, we found that the simple correlation coefficient between X_4 and X_5 ($r = 0.366$) is significant at ($P<0.01$), also the simple correlation coefficient between X_5 and X_6 ($r = 0.668$) is significant at ($P<0.01$).

So, the stepwise method was chosen, which is the easiest method in multiple linear regression to reach the best regression model. This method is a development of the forward selection method, and the forward deletion strategy depends on entering the independent variables of the model one by one. So, the first step begins with calculating the correlation coefficient. Then, the simple or correlation matrix between the dependent variable and the independent variables and the independent variable with the highest correlation coefficient with the variable (y) is chosen from among all the variables.

Table 11. Results of stepwise method

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.536a	0.287	0.281	4.95514
2	0.757b	0.572	0.565	3.85440
3	0.912c	0.833	0.828	2.42275
4	0.975d	0.951	0.950	1.31177
5	0.985e	0.970	0.968	1.03935

a. Predictors: (Constant), X_{11}

b. Predictors: (Constant), X_{11}, X_1

c. Predictors: (Constant), X_{11}, X_1, X_3

d. Predictors: (Constant), X_{11}, X_1, X_3, X_{10}

e. Predictors: (Constant), X_{11}, X_1, X_3, X_{10}, X_4

f. Dependent Variable: X_{13}

According to the analysis, we found five models of regression. First, where we found that the highest correlation coefficient of the dependent variable (X_{13}: Motivational Stimulation) is with the independent variable (X_{11}: Parents cooperation), and it is necessary to note that this method needs to determine the level of significance for entering and excluding variables from the model, and the level of significance for entering the variables must be less than the level of significance for exclusion, where we set the level of significance for the entry $\alpha = 0.05$ and for the exclusion with $\alpha = 0.1$ After that, its statistic is calculated (F) for the model that If it is significant, then its t-statistic is calculated for each parameter of the model, and when calculating the first parameter, there is no need to calculate his t-statistic because the F-statistic does the job considering that we only have one parameter until this stage. In the next stage, we enter the second independent variable, which has the highest partial correlation coefficient with the dependent variable. Then we do the aforementioned tests.

Table 12. Result of ANOVA for the effects of each model of regression

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1146.921	1	1146.921	46.711	0.000[b]
	Residual	2848.198	116	24.553		
	Total	3995.119	117			
2	Regression	2286.630	2	1143.315	76.958	0.000[c]
	Residual	1708.489	115	14.856		
	Total	3995.119	117			
3	Regression	3325.972	3	1108.657	188.878	0.000[d]
	Residual	669.147	114	5.870		
	Total	3995.119	117			
4	Regression	3800.676	4	950.169	552.190	0.000[e]
	Residual	194.442	113	1.721		
	Total	3995.119	117			
5	Regression	3874.132	5	774.826	717.274	0.000[f]
	Residual	120.987	112	1.080		
	Total	3995.119	117			

a. Dependent Variable: X_{13}

b. Predictors: (Constant), X_{11}

c. Predictors: (Constant), X_{11}, X_1

d. Predictors: (Constant), X_{11}, X_1, X_3

e. Predictors: (Constant), X_{11}, X_1, X_3, X_{10}

f. Predictors: (Constant), X_{11}, X_1, X_3, $X_{10,}X_4$

As seen from the result in Table 12, the predictors in the first model are constant. The independent variable (X_{11}: Parents cooperation), while in the second model, there were two independent variables X_{11}, X_1), in model three, there were three independent variables (X_{11}, X_1, X_3). In comparison, in model Four, there were four independent variables (X_{11}, X_1, X_3, X_{10}), And in model five, there were five independent variables (X_{11}, X_1, X_3, X_{10}, X_4).

The first chosen variable in the first step was X_{11} because it has the highest simple correlation coefficient with the dependent variable X_{13}.

(Model 1) $\hat{y} = -0.536X_{11}$ (standardized value)

The F statistic for model 1 is $F = 46.711$, as shown in Table 12 it is significant that is P-value ($sig = 0.000$), and the t statistic ($t = 6.836$) for the model parameter is significant ($Sig = 0.000$), as shown in Table 13 Parameter explains that for every one unit increase in the population ratio for the occupational stress in parent cooperation, it will reduce the total motivational stimulation for disabled pupils by 0.536.

In the second step, the independent variable X_1, which has the highest partial correlation coefficient with the dependent variable Y, was entered ($r = -0.368$). From the variable chosen in the previous step, we obtained the following regression model:

(Model 2) $\hat{y} = -0.687X_{11} + 0.555X_1$

The previous mode 2 β_2 parameter explains that an increase in the Years of Experience rate one unit will increase the teachers' motivational stimulation of disabled pupils by 0.555 on average. The F-statistic from the ANOVA table showed the significance of the model and that both parameters of the models (β_1, β_2) are significant. Similar results were found in the literature on the effect of teacher working time on motivation (Özdoğru, 2021; Al-Zoubi, 2003; Ashour, 2006) .

Table 13. Result of coefficients for each model of regression

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Beta	Std. Error	*Beta*		
1	(Constant)	246.896	2.976		82.962	.000
	X_{11}	-1.829	0.268	-0.536	-6.835	.000
2	(Constant)	243.809	2.342		104.121	.000
	X_{11}	-2.345	0.216	-0.687	-10.840	.000
	X_1	4.808	0.549	0.555	8.759	.000
3	(Constant)	241.987	1.478		163.704	.000

	X_{11}	-3.929	0.181	-1.151	-21.741	.000
	X_1	9.427	0.489	1.089	19.261	.000
	X_3	5.251	0.395	0.791	13.307	.000
	(Constant)	212.460	1.950		108.978	.000
	X_{11}	-4.894	0.114	-1.434	-43.006	.000
4	X_1	13.120	0.346	1.515	37.929	.000
	X_3	8.677	0.297	1.307	29.218	.000
	X_{10}	5.748	0.346	0.487	16.609	.000
	(Constant)	216.837	1.633		132.758	.000
	X_{11}	-5.553	0.121	-1.627	-46.074	.000
	X_1	16.158	0.459	1.866	35.185	.000
5	X_3	10.189	0.298	1.534	34.154	.000
	X_{10}	8.385	0.421	0.710	19.904	.000
	X_4	-0.839	0.102	-0.261	-8.246	0.000

a. Dependent Variable: X_{13}

In the third step, variable X_3 was introduced, The Type of Disability Dealing with, as the value of the correlation coefficient ($r = -0.234$), which is the third largest partial correlation coefficient with the dependent variable, and its value is significant, and it is linked in an inverse relationship with the dependent variable, so we obtained the model (3)

$$\text{(Model 3) } \hat{y} = -1.151X_{11} + 1.089X_1 + 0.791X_3 .$$

Moreover, that means that an increase in the type of disability dealing with rate by one unit will increase the teachers' motivational stimulation of disabled pupils by 0.791 on average. The F-statistic from the ANOVA table showed the significance of the model and that the parameters of the model ($\beta_1, \beta_2, \beta_3$) are significant. Ashur (2006), found similar results on the effect of student barrier on motivation.

The following independent variable entered in the fourth stage (X_{10}) is the Stress of Relations with Pupil, and it has a positive effect and its coefficients are significant.

$$\text{(Model 4) } \hat{y} = -1.434X_{11} + 1.515X_1 + 1.307X_3 + 0.487X_{10} .$$

Furthermore, it means that an increase in the stress of the Relations with Pupils rate by one unit will lead to an increase in the teachers' motivational stimulation of disabled pupils by 0.487 on average. The F-statistic from the ANOVA table showed the significance of the model and that the model's parameters ($\beta_1, \beta_2, \beta_3, \beta_4$) are significant. Ashur (2006), found similar results in the effect of student relations on teacher motivation.

The last independent variable with the highest partial correlation coefficient with the dependent variable with the stability of the effect of all the independent variables entered in the previous stages is the Stress of Nature of Job (X_4), which had an opposite effect with the opposite the dependent variable. This sign is logical in its effect. Furthermore, we note from the p-value (<0.001) associated with the t-statistic

that the parameter of the variable X_4 was shown to be significant at a significance level = 0.000. The F-statistic from the ANOVA table showed the significance of the model and that the model's parameters ($\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$) are significant. Özdoğru (2021) and Ashur (2006) found similar results in the impact of the nature of job on teacher motivation.

$$\text{(Model 5) } \hat{y} = -1.627X_{11} + 1.866X_1 + 1.534X_3 + 0.710X_{10} - 0.261X_4.$$

It will reduce the total motivational stimulation for disabled pupils by 0.261.

CONCLUSION

This research is concerned with investigating the demographic variables of students with disabilities and teachers working with students with disabilities, and the effects of teachers' occupational stress on the motivational stimulation of teachers in Special Education Schools. In order to achieve the main objective of this study, a survey was administered at five different institutes for special education in the center of Duhok city in the north of Iraq. A total of 118 valid questionnaires were successfully collected and analyzed. Furthermore, several analyses were applied to observe the existence of statistically significant differences and/or possible correlations whenever applicable. The questionnaire utilized in this study included three parts: The first part to collect data about demographic variables, the second part to measure occupational stress (51) item, and the third part to measure motivational stimulation, which consisted (70) items.

The analysis of demographic variables did not reveal any odd or abnormal results. However, a few observations from the demographic variable analysis were worthy of discussion. As shown in Table 3, a higher percentage of teacher's participants who have experience between five and ten years 51.7% was observed. This is generally explained by the fact that these institutes are modern in providing special education services to students with disabilities. Furthermore, opportunities for appointment in these public institutions have become limited due to the economic crisis that Iraq has been experiencing in recent years, which has led to a reduction in appointment opportunities.

The statistical analysis for the occupational stress scale, presented in Table 6, revealed that the highest weight was observed for "Neutral of Job" stress. Nonetheless, the lowest weight was observed for the stress of "Relations with Pupils", which requires another study to investigate its psychological and educational implications. Moreover, some teachers may think that if students are not motivated and ready to learn, they will not be able to motivate them anyway.

After analyzing the Motivational Stimulation Scale's data, it was observed that all the questionnaire elements were closely relevant in terms of mean weights, as given in β Table 7, which was supported by the studies of Al-Zoubi (2003) and Ashour (2006), who indicated that the degree of motivational stimulation of teachers working with students with disabilities is high. On the other hand, it was found from Tables 8, Table 9 and Table 10 that there is a significant relationship between eight

independent variables with the dependent variable, and the results showed that the effect of these variables is statistically significant.

Similar statistically significant effects were observed in using stepwise for regression analyses. Again, this confirms the above observation relevant to the effect of the years of experience, type of disability dealing with, neutral of job, relation with pupils, and parents cooperation. This result is different from the results of Ashour (2006), which indicated no significant differences in motivational stimulation according to experience and type of disability the teacher is dealing with.

As a result, based on the findings of this study and using Multiple linear regression, it can be said that there is a possibility to predict the level of motivational stimulation for teachers in the light of five independent variables, two of which are demographic variables (years of experience and the type of disability that the teacher deals with, and three independent variables within occupational stress, which are the nature of work stress, and the stress of relationships With the pupils, and finally the stress of parental cooperation.

According to the research results, we can conclude the following:

1. In triggering the motivation of teachers, the importance of disability type and years of experience are as effective as demographic variables.

2. Nature of work variables, relationships with students, and parent collaboration ethics as important variables in occupational stress affect the variance of motivational arousal for teachers working with students with disabilities.

3. The possibility of using multiple linear regression as a statistical method in predicting the variation of motivational stimulation in light of several independent variables (demographic and work stress variables).

4. In this study, considering the effects of teacher working time on motivation, the effect of student disability on motivation, the effect of student relations on teacher motivation, and the effect of the nature of the job on teacher motivation appears to have similar results in the related to literature (Özdoğru, 2021; Al-Zoubi, 2003; Ashour, 2006).

Finally, this research suggest taking advantage of the current research results by special education institutions and conducting more educational studies using multiple linear regression model.

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