Educational Administration: Theory and Practice
2023, 29(4), 3933 - 3945
ISSN:2148-2403
https://kuey.net/

Research Article

Effect of Different Facets of Sense of Efficacy on Occupational Stress of the Teacher Educators of Self-financed B.Ed. Colleges

Malay Halder[1*] , Mita Banerjee[2] , Samirranjan Adhikari[3]

[1]Research Scholar, Department of Education, Swami Vivekananda University, Barrackpore, West Bengal, India
[2]Professor, Department of Education, Swami Vivekananda University, Barrackpore, West Bengal, India
[3]Professor, Department of Education, Sidho-Kanho-Birsha University, Purulia, West Bengal, India

Citation: Malay Halder, et al. (2023), Effect of Different Facets of Sense of Efficacy on Occupational Stress of the Teacher Educators of Self-financed B.Ed. Colleges, *Educational Administration: Theory and Practice*, *29*(4), 3933 - 3945
Doi: 10.53555/kuey.v29i4.8698

ARTICLE INFO

ABSTRACT

Teacher educators are the hidden operators of the society. The backbone of the society (teacher) is modified and accomplished by the teacher educators in B.Ed. colleges. Due to present changes in the education system and increasing complexity, teacher educators cannot keep pace with times properly. Teacher educators are critical in disseminating information and carrying out national policies. As a result, they became stressed and could not give better teaching in the class. So, occupational stress makes them unmotivated and distracts them from their goals. Teacher educators should effectively control their occupational stress for good teaching. The sense of efficacy of the teacher educators may develop their efficiency to cope with occupational stress and improve overall appearance, creating a pleasant learning environment for trainee teachers. The purpose of the present study was to explore the effect of different facets of sense of efficacy on occupational stress of the teacher educators of self-financed B.Ed. colleges.

Method – The present study was carried out through the descriptive survey method within a correlational research design. A sample of 305 teacher educators were randomly chosen from self-financed B.Ed. colleges of South 24 Parganas by multiphasic stratified random sampling technique.(i) Teacher Stress Inventory (TSI) (Fimian, 1988) and (ii) Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001)were administered on the sample.

Results – All facets of teachers' sense of efficacy (i.e., student engagement, instructional strategies and classroom management) put their negative effect on occupational stress of the teacher educators considering male and female as a whole, male and female only.

Discussions and Conclusions – The independent variables (facets of teachers' sense of efficacy) put their highly (statistically) significant effect on occupational stress of the teacher educators of self-financed B.Ed. colleges.

Keywords: Occupational Stress, Self-efficacy, Sense of Efficacy, Backbone of the Society, Self-financed, Trainee Teachers, Overall Appearance.

1. Introduction

The people who teach the specific job skill (teaching) required for any specific employment (teaching) are known as teacher educators. Teachers or in-service teachers are trained by teacher educators. Today teaching is a physically and psychologically challenging profession. A teacher educator must spend a great deal of energy in addition to their personal and family responsibilities to fulfil their tasks in the classroom. They experience stress as a result of this tendency. Generally, society has some expectation from the teacher educators. These expectations may also be the source of stress. It has been shown that one of the most stressful professions is teaching **(Borg & Riding, 1991; Brouwers & Tomic, 1999; Sharma & Marwaha, 2020).** Stress refers to the results of an organism, whether human failing to react adequately to perceived or real emotional or physical dangers. Occupational stress occurred when the social requirements and the professional expectations of teacher educators diverge. The prevalence of job stress in the teaching profession has grown, mostly as a

result of growing occupational complexity and personal financial strain. Workload, working hours, distance from home, job stability and compensation are the main cause of occupational stress **(Das & Ghosh (Gayen), 2018).** A teacher cannot solve the difficulties of his kids if he is stressed out himself. Having a high feeling of self-efficacy helps protect against work-related stress. Teacher educators are likely to feel less stressed when they have confidence in their abilities to engage students, manage classroom issues and use successful instructional practices **(Tomas, 2021).** There is a strong correlation between occupational stress and self-efficacy, the conviction that one can successfully complete tasks and manage obstacles at work. People who have strong self-efficacy tend to view stressful events as more controllable and are better able to handle those **(Antoniou et al., 2023).** High efficacious teacher educators are better able to handle pressures. They frequently employ more potent problem-solving techniques and exhibit greater resilience in the face of difficulty. A more favourable work atmosphere is correlated with high self-efficacy. Teachers who have faith in their skills are more likely to cultivate a collaborative and encouraging environment, which lowers stress levels in general. Teachers who have a strong sense of their own abilities not only feel less stressed, but they also have a beneficial effect on the learning results of their pupils. This starts a positive feedback loop where tension is decreased and self-efficacy is further enhanced by positive teaching experiences.

1.1. Perspective

Teacher educators may perform better, which will enhance the quality of their instruction and increase student results, by lowering occupational stress. The study's findings may be used by self-financed B.Ed. institutions to improve overall institutional performance by addressing issues that lead to occupational stress and fostering a more supportive work environment. This is significant because teacher educators mould the next generation of teachers. By concentrating on a particular group of educators in a certain setting, this study contributes a valuable lesson in the field of teacher education. It might be useful to build methods to improve teachers' well-being to understand how feeling of effectiveness affects occupational stress. The results can be used to inform the creation of professional development initiatives that increase teacher educator's perception of effectiveness in the hopes of lowering stress and enhancing work satisfaction. This study is significant because its findings will contribute to the interpretation and comprehension of the stress levels experienced by self-financed B.Ed. college teachers.

1.1.1. Objective of the Study

The main objective of the study was to determine the impact of sense of efficacy on occupational stress of the teacher educators of self-financed B.Ed. colleges.

1.1.2 Specific Objectives of the Study

The present study was designed to probe into the following specific objectives –

i. To construct a multiple regression equation to predict **Occupational Stress** with the help of different facets of the **Sense of Efficacy** of the teacher educators of self-financed B.Ed. colleges **considering both male and female as a whole**;
ii. To construct a multiple regression equation to predict **Occupational Stress** with the help of different facets of the **Sense of Efficacy** of the **male** teacher educators of self-financed B.Ed. colleges;
iii. To construct a multiple regression equation to predict **Occupational Stress** with the help of different facets of the **Sense of Efficacy** of the **female** teacher educators of self-financed B.Ed. colleges.

Research Questions were –

i. What is the multiple regression equation to predict **Occupational Stress** with the help of different facets of the **Sense of Efficacy** of the teacher educators **considering both male and female as a whole**?
ii. What is the multiple regression equation to predict **Occupational Stress** with the help of different facets of the **Sense of Efficacy** of the **male** teacher educators?
iii. What is the multiple regression equation to predict **Occupational Stress** with the help of different facets of the **Sense of Efficacy** of the **female** teacher educators?

Research Hypotheses were –

H_1: There are statistically significant multiple regression coefficients to frame the equation to predict **Occupational Stress** with the help of different facets of the **Sense of Efficacy** of the teacher educators **considering both male and female as a whole**.
H_2: There are statistically significant multiple regression coefficients to frame the equation to predict **Occupational Stress** with the help of different facets of **the Sense of Efficacy** of the **male** teacher educators.
H_3: There are statistically significant multiple regression coefficients to frame the equation to predict **Occupational Stress** with the help of different facets of **the Sense of Efficacy** of the **female** teacher educators.

2. Acquaintances with the Psychological Constructs under Study

Let's take an overview of the psychological constructs that were used in this study.

2.1 Occupational Stress

"A perceived imbalance in the interface between an individual, the environment, and other individuals" is the foundational concept of stress **(Roxas, 2009).** Stress is the non-specific reaction of a person's body to all demands placed upon it. Stress has been understood to be an inevitable part of both life and the workplace. According to **Chen (2022),** occupational stress is the negative effects that organizational characteristics and working conditions have on people's health and productivity. There are six main indicators of work-related stress – lack of space for their personal lives, a decline in their social and professional lives, irregular sleeping patterns, rude gestures, and the majority of the time, illness brought on by the just stress-related factors**(Fox & Stallworth, 2010).** Occupational stress has been linked to elements of teachers' well-being, job performance, emotional exhaustion, and levels of involvement.

It is frequently used as an indication of teachers' psychological health **(Han et al., 2019).** Furthermore, a number of factors, such as an overwhelming workload, a lack of resources, unfavourable student feedback, a lack of support from superiors and colleagues, low pay and difficult parent-teacher relationships, contribute to teachers' perceptions of their work as being extremely stressful **(De Stacio et al., 2017).** An excessive amount of stress may lead to bad health, strained relationships, diminished self-worth, and lost confidence. Teachers who experience less occupational stress may also perform better at work and be more productive, which might lead to more successful careers **(Suico et al., 2024).** Stress at work may have a significant and detrimental effect on teachers' daily adjustments and general well-being. Physical signs of professional stress include headaches, tiredness and elevated blood pressure; psychological signs include anxiety, sadness and poor self-esteem. Substance misuse, violent conduct, forgetfulness, inability to focus and poor memory are some other indicators of work-related stress. Stressed-out teachers exhibited more discontent with their jobs and disengagement from the classroom through early retirement, resignation or absence **(Travers, 2017).** Limited study has been done on the impact of stress as an affective factor for teachers, but it can have a detrimental effect on instructors in many dimensions (physical, mental, emotional and psychological), which can then negatively influence the institutions and pupils. In the globalized world of today, educators are expected to do a wide range of tasks each day. Teachers frequently have both positive and bad contacts with parents, colleagues, students, and school administration **(Unal, 2000).** Having to instruct uninspired pupils, discipline issues, work overload, unclear tasks and responsibilities being assessed by others; unfavourable relationships with administrators and co-workers; and unfavourable working environment are the sources of stress **(Kyriacou, 2001).**

2.2 Sense of Efficacy

The concept self-efficacy stems from **Bandura's Social Cognitive Theory (1977).** Self-efficiency is the belief that one can plan and carry out the necessary actions to handle challenging and troublesome circumstances. Self-efficacy enables a person to see challenging circumstances as opportunities rather than threats when they arise. Teaching efficacy pertains to the conviction that one can increase students' learning through their own teaching, as well as the ability of other educators and the educational system to assist students **(Dembo & Gibson, 1984; Ashton & Webb, 1986).** Teachers who have a high level of self-efficacy will thus be better able to handle pressure.Teachers who possess these qualities – commitment, enthusiasm, intellectual and emotional stability and a high degree of self-efficacy are considered effective. Teachers' self-efficacy affects both their instructional strategies and the motivation and academic success of their pupils **(Skaalvik & Skaalvik, 2007; Tschannen-Moran & Woolfolk Hoy, 2001).** A teacher has to feel comfortable both mentally and emotionally in order to teach well and them also need to believe that they can have an impact on the lives of the students they are teaching. Effective instructors are necessary to foster students' sense of self-efficacy in their qualitative education**(Sharma & Kaur, 2017).**In the process of teaching and learning, teaching efficacy is crucial. Research has indicated that teachers with a low sense of efficacy are more likely to use teacher-directed strategies, like lecture and reading from the text, whereas highly efficacious teachers are more likely to use student-centered and inquiry-based teaching strategies **(Flores, 2001; Tschannen-Moran & Woolfolk Hoy, 2001).** Put differently, educators who possessed a high degree of efficacy felt that they had significant control on the motivation and academic performance of their students. Reduced stress, rage, control methods, usage of cooperative learning and increased enthusiasm for teaching are all signs of a high effectiveness teacher **(Sharma & Kaur, 2017; Sharma, 2020).** Due to their self-assurance and ability to inspire pupils, teachers with high self-efficacy are good teachers **(Khurshid, Quasism & Ashraf, 2012).** According to **Bandura (1993),** educators who possess a strong feeling of self-efficacy regarding their teaching abilities can motivate their pupils and improve their educational progress. His belief was that a teacher's feeling of self-efficacy is crucial to establishing a productive learning environment. Educators who possess a high sense of self-efficacy tend to be more motivated than those who do not. This drive improves what they do. These educators provide students with low self-efficacy the chance to learn from them.

3. Review of Allied Literature

This Review of Literature provides the foundation for the present investigation.

3.1 Review Related to Effect of Sense of Efficacy on Occupational Stress

Bandura's Social Cognitive Theory (1986), postulated that a variety of variables, including environmental ones, might affect people's self-efficacious perceptions about their competence and talents. **Ipek et al. (2018)** stated that one important environmental component influencing their self-efficacy may have been occupational stress. **Rani and Sharma (2020)** showed that there was a strong and unfavorable correlation between women teachers' self-efficacy and occupational stress.This suggests that women educators who have greater levels of self-efficacy as instructors encounterd less occupational stress and vice versa for those with lower levels of self-efficacy. Therefore, it is clear from the findings that the most important and critical factors in predicting the occupational stress experienced by female teachers are teacher self-efficacy.In a study including 250 married female college teachers, **Sharma (2018)** discovered a strong and negative correlation between the psycho-social issues faced by these educators and their level of teacher self-efficacy.**Wapano (2021)** revealed self-efficacy was found to strongly predict occupational stress, and there was a negative significant association between self-efficacy and stress.

Research has demonstrated that teachers' self-efficacy can serve as a buffer against stress **(Chan, 2007);** yet, other research has revealed that burnout is preceded by poorer teacher self-efficacy **(Schwarzer & Hallum, 2008). Jex and Gudanowski (2002)**findings of this investigation showed that while individual efficacy had no moderating or mediating effects, it was associated to certain strains. Conversely, it is discovered that there is a high correlation between collective efficacy and strains as well as stresses. The impact of work hours was mitigated and the correlation between situational restrictions and certain stresses was controlled by collective effectiveness. **Schwarzer and Hallum (2008)** investigated the connection between burnout, occupational stress, and self-efficacy.

The findings of this study demonstrated how self-efficacy, particularly in younger instructors with lower general self-efficacy, might mediate stress and burnout. **Troesch and Bauer (2017)** demonstrated a negative correlation between stress and self-efficacy among teachers in their second careers. According to their research, second career teachers' job stress is more significantly impacted by self-efficacy. When it comes to managing stressful situations, teachers can benefit greatly from having self-efficacy **(Rabaglietti et al., 2021).** In a similar vein, teachers' self-efficacy beliefs act as protective personal assets against work-related pressures. Additionally, these ideas are essential for lessening the negative effects of stress at work on teachers **(Ipek et al., 2018).** Additionally, it has been discovered that better levels of teaching effectiveness are associated with favourable personal dispositions, autonomy in decision-making and self-efficacy **(Muliati, Asbari, Nadeak, Novitasari & Purwanto, 2022).**

People who have strong self-efficacy typically see stressful circumstances as obstacles they can overcome, which reduces their perceived stress **(Lee et al., 2016).** Furthermore, high levels of occupational stress in teachers, when combined with insufficient coping strategies are associated with negative outcomes such as burnout, lowered teaching self-efficacy, ineffective classroom management strategies, lower student learning outcomes and worsened depressive symptoms **(Lauermann & Konig, 2016).**

4. Methods

The descriptive survey method within **Correlational research design** was used to conduct the current investigation. The specifics of the sample, instrument, data-collecting process and statistical method are described below.

4.1 Research Design

The following presents the research design that was used for this investigation.

4.1.1 Variables

The following variables were taken for this study.

4.1.1.1 Independent Variable

There must be a minimum of two values for an independent variable. Each value of the independent variable is called a level. In the ***multiple regression analysis*** of the present study the ***"independent variables"*** were the dimensions of the ***"Sense of Efficacy"***. These dimensions were – (a) Efficacy for student engagement, (b) Efficacy for instructional strategies and (c) Efficacy for classroom management

4.1.1.2 Dependent Variable

In the ***multiple regression analysis*** of the present study the ***"dependent variable"*** was the composite score of ***"Occupational Stress".***

4.2 Sample

Multiphasic stratified Random Sampling Techniques were used to create a representative sample. A total of 305 teacher educators (188 men and 117 women) were chosen at random from South 24 Parganas, West Bengal, India's self-finance B.Ed. colleges for the current study.

4.3 Tools of Research

The present study employed the subsequent research instrument to gather data. Using criteria like relevance, appropriateness, validity, reliability, and suitability, the instrument was chosen. Below is a brief summary of the tool.

4.3.1 Teacher Stress Inventory (TSI) (Fimian, 1988)

The ***"Teacher Stress Inventory (TSI)"*** tool is used in this investigation and developed by ***Fimian (1988).*** The Teacher Stress Inventory has forty-nine items. Ten variables are created from the components, and these are further divided into stressors and stress symptoms. These questions use a 5-point Likert-type scale as the basis for replies. The scale ranges from 1 (no strength; not noticeable) to 5 (great strength; very noticeable). The statements are scored as 1 through 5 – definitely not, perhaps not, undecided, probably and absolutely.

Table-4.3.1: Dimension-wise Distribution of Items

Sl. No.	Source of stress	Items
1.	Time Management	8
2.	Work-related Stressors	6
3.	Professional Distress	5
4.	Discipline and Motivation	6
5.	Professional Investment	4
6.	Emotional Manifestation	5
7.	Fatigue Manifestation	5
8.	Cardiovascular Manifestation	3
9.	Gastrovascular Manifestation	3
10.	Behavioural Manifestation	4

Here the mean score of the scale was normalized and the normalization procedure was as follows:

Normalized mean = (Mean of the item responses in a dimension of the scale /Total number of items in that dimension of the scale.

Subsequently, the normalized mean extending from 1 and 5, with 3 serving as the midpoint (moderate stress). Higher scores on the scale should be viewed with caution. The range of Normalized means score of each facets of **"Teacher Stress Inventory (TSI)"** may be interpreted as –

1.00 to 1.99 : Very Low Stress

2.0 to 2.99 : Low Stress

3.00 to 3.99 : High Stress

4.00 to 5.00 : Very high Stress

4.3.2 Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001)

The ***"Teachers' Sense of Efficacy Scale (TSES)"*** created by ***Megan Tschannen-Moran and Mary Anita Woolfolk Hoy (2001)***, was utilized in this study. On this scale, there are twelve short form items and twenty-four long form items. These items are divided into three subscales: i) Efficacy for Student Engagement (SE; 8 items), ii) Efficacy for Instructional Strategies (IS; 8 items) and iii) Efficacy for Classroom Management (CM; 8 items). The nine-point Likert scale included nine different answers – 1 and 2 meant nothing, 3 and 4 meant very little, 5 and 6 had some influence, 7 and 8 meant quite a little and 9 meant a great deal.

Table-4.3.2: Subscale wise Distribution of Items

Sl. No.	Subscales	Items
1.	Efficacy for student engagement	8
2.	Efficacy for instructional strategies	8
3.	Efficacy for classroom management	8

Here the mean score of the scale was normalized and the normalization procedure was as follows:
Normalized mean = Mean of the item responses in a subscale/Total number of items in that sub scale.
Then, the normalized mean fell within the range extending from 1 to 9 with 5 as the mid-point (moderately satisfied).
The range of Normalized means score of "**Teachers' Sense of Efficacy Scale (TSES)"** may be interpreted as –

1.00 to 2.99 : Very low

3.00 to 4.99 : Low

5.00 to 6.99 : High

7.00 to 9.00 : Very high

4.4 Procedure for Data Collection
To obtain authorization to gather the data, the heads of the institutes were approached. Applying the aforementioned instruments to the research participants in compliance with the instructions included in the tool's handbook allowed for the collection of pertinent data on several constructions.

5. Results of Multiple Regression Analysis

The results of multiple regression analysis considering ***Teacher Stress Inventory (TSI)*** score of the teacher educators as dependent variable and different dimensions of ***Teachers' Sense of Efficacy Scale (TSES)*** score as independent variables are presented herewith.
Three analyses were done considering – (a) the total teacher educators as a whole, (b) male teacher educators only and (c) female teacher educators only.

5.1 Teacher Stress Inventory Scale (TSI) Score of the Total Teacher Educators as a Whole Irrespective of Gender as Dependent Variable

The results of multiple regression analysis considering the total teacher educators as a whole are presented in table-5.1(a), 5.1(b), 5.1(c), 5.1(d) and 5.1(e).

Table-5.1(a): Variables Entered in Multiple Regression Analysis with Teacher Stress Inventory Scale (TSI) Score of the Total Teacher Educators as a Whole Irrespective Gender as Dependent Variable

Dependent Variable	Variables Entered	Method
Occupational Stress	Student Engagement, Instructional Strategies, Classroom Management	Enter

Table-5.1(a) shows variables entered in multiple regression analysis.
Dependent Variable was **the Teacher Stress Inventory Scale (TSI)** score of the teacher educators of self-financed B.Ed. colleges, male and female considering as a whole.
Independent Variableswere the scores of different dimensions of **Teachers Sense of Efficacy Scale (TSES).**

Method of Analysis – here **Enter Method** of analysis was considered.

Table-5.1(b): Descriptive Statistics of the Dependent as well as Independent Variables Entered in Multiple Regression Analysis

Variable	N	Mean	Std. Deviation	Remark
Teacher Stress	305	3.01	0.06	High
Student Engagement	305	6.97	1.15	High
Instructional Strategies	305	7.09	1.17	Very High
Classroom Management	305	6.99	1.10	High

Table-5.1(c): Model Summary in Multiple Regression Analysis with Variables Entered in Multiple Regression Analysis with Teacher Stress Inventory Scale (TSI) Score of the Total Teacher Educators as a Whole Irrespective Gender as Dependent Variable

R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
				R^2 Change	F Change	df_1	df_2	Sig. F Change
0.998	0.997	0.997	0.003	0.997	32428.254	3	301	0.000

Table-5.3.1(c) shows the model summary in multiple regression analysis. From this table it is clear that the F change was highly significant.

Table-5.1(d): ANOVA in Multiple Regression Analysis with Variables Entered in Multiple Regression Analysis with Teacher Stress Inventory Scale (TSI)Score of the Total Teacher Educators as a Whole Irrespective Gender as Dependent Variable

	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.046	3	0.349	32428.254	0.000
Residual	0.003	301	0.000		
Total	1.050	304			

Table-5.3.1(d) shows ANOVA in multiple regression analysis, from where we can see that the F change was highly significant.

Table-5.1(e): Coefficients in Multiple Regression Analysis with Variables Entered in Multiple Regression Analysis Teacher Stress Inventory Scale (TSI) Score of the Total Teacher Educators as a Whole Irrespective of Gender as Dependent Variable

Predictors	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	β		
(Constant)	2.933	0.001		2385.385	0.000
Student Engagement	-0.008	0.000	-0.157	-22.454	0.000
Instructional Strategies	-0.116	0.000	-2.302	-299.389	0.000
Classroom Management	-0.098	0.000	-1.832	-223.923	0.000

Table-5.1(e) shows the coefficient of multiple regression analysis. The linear multiple regression equation was as follows:

TSI = 2.933 - 0.008 × Student Engagement - 0.116 × Instructional Strategies - 0.098 × Classroom Management

The independent variables (subscales of ***Teacher Sense of Efficacy***) put their highly (statistically) significant negative effects in manifestation of ***Occupational Stress.***

5.2 Teacher Stress Inventory Scale (TSI) Score of the Male Teacher Educators as Dependent Variable

The results of multiple regression analysis considering the male teacher educators are presented in table-5.2(a), 5.2(b), 5.2(c), 5.2(d) and 5.2(e).

Table-5.2(a): Variables Entered in Multiple Regression Analysis with Teacher Stress Inventory Scale (TSI) Score of the Male Teacher Educators as Dependent Variable

Dependent Variable	Variables Entered	Method
Occupational Stress	Student Engagement, Instructional Strategies, Classroom Management	Enter

Table-5.2(a) shows variables entered in multiple regression analysis.
Dependent Variable was **the Teacher Stress Inventory Scale (TSI)** score of the male teacher educators of self-financed B.Ed. colleges.

Independent Variableswere the scores of different dimensions of **Teachers Sense of Efficacy Scale**

(TSES).
Method of Analysis – here **Enter Method** of analysis was considered.

Table-5.2(b): Descriptive Statistics of the Dependent as well as Independent Variables Entered in Multiple Regression Analysis

Variable	N	Mean	Std. Deviation	Remark
Teacher Stress	188	3.012	0.059	High
Student Engagement	188	7.057	1.062	Very High
Instructional Strategies	188	7.183	1.066	Very High
Classroom Management	188	7.103	1.026	Very High

Table-5.2(c): Model Summary in Multiple Regression Analysis with Variables Entered in Multiple Regression Analysis with Teacher Stress Inventory Scale (TSI) Score of the Male Teacher Educators as Dependent Variable

R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
				R^2 Change	F Change	df_1	df_2	Sig. F Change
0.999	0.997	0.997	0.003	0.997	22226.194	3	184	0.000

Table-5.2(c) shows the model summary in multiple regression analysis. From this table it is clear that the F change was highly significant.

Table-5.2(d): ANOVA in Multiple Regression Analysis with Variables Entered in Multiple Regression Analysis with Teacher Stress Inventory Scale (TSI)Score of the Male Teacher Educators as Dependent Variable

	Sum of Squares	df	Mean Square	F	Sig.
Regression	0.642	3	0.214	22226.194	0.000
Residual	0.002	184	0.000		
Total	0.644	187			

Table-5.2(d) shows ANOVA in multiple regression analysis, from where we can see that the F was highly significant.

Table-5.2(e): Coefficients in Multiple Regression Analysis with Variables Entered in Multiple Regression Analysis Teacher Stress Inventory Scale (TSI) Score of the Male Teacher Educators as Dependent Variable

Predictors	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	β		
(Constant)	2.933	0.002		1785.519	0.000
Student Engagement	-0.008	0.000	-0.141	-19.309	0.000
Instructional Strategies	-0.116	0.000	-2.099	-252.280	0.000
Classroom Management	-0.098	0.001	-1.715	-191.993	0.000

Table-5.2(e) shows the coefficient of multiple regression analysis. The linear multiple regression equation was as follows:

TSI = 2.933 - 0.008 × Student Engagement - 0.116 × Instructional Strategies - 0.098 × Classroom Management

The independent variables (subscales of ***Teacher Sense of Efficacy***) put their highly (statistically) significant negative effects in manifestation of ***Occupational Stress.***

5.3 Teacher Stress Inventory Scale (TSI) Score of the Female Teacher Educators as Dependent Variable

The results of multiple regression analysis considering the male teacher educators are presented in table-5.2(a), 5.2(b), 5.2(c), 5.2(d) and 5.2(e).

Table-5.3(a): Variables Entered in Multiple Regression Analysis with Teacher Stress Inventory Scale (TSI) Score of the Female Teacher Educators as Dependent Variable

Dependent Variable	Variables Entered	Method
Occupational Stress	Student Engagement, Instructional Strategies, Classroom Management	Enter

Table-5.3(a) shows variables entered in multiple regression analysis.

Dependent Variable was **the Teacher Stress Inventory Scale (TSI)** score of the female teacher educators of self-financed B.Ed. colleges.

Independent Variableswere the scores of different dimensions of **Teachers Sense of Efficacy Scale (TSES).**

Method of Analysis – here **Enter Method** of analysis was considered.

Table-5.3(b): Descriptive Statistics of the Dependent as well as Independent Variables Entered in Multiple Regression Analysis

Variable	N	Mean	Std. Deviation	Remark
Teacher Stress	117	3.013	0.059	High
Student Engagement	117	6.823	1.282	High
Instructional Strategies	117	6.940	1.310	High
Classroom Management	117	6.821	1.190	High

Table-5.3(c): Model Summary in Multiple Regression Analysis with Variables Entered in Multiple Regression Analysis with Teacher Stress Inventory Scale (TSI) Score of the Female Teacher Educators as Dependent Variable

R	R^2	Adjusted R^2	Std. Error of the Estimate	Change Statistics				
				R^2 Change	F Change	df_1	df_2	Sig. F Change
0.998	0.996	0.996	0.004	0.996	10451.803	3	113	0.000

Table-5.3(c) shows the model summary in multiple regression analysis. From this table it is clear that the F change was highly significant.

Table-5.3(d): ANOVA in Multiple Regression Analysis with Variables Entered in Multiple Regression Analysis with Teacher Stress Inventory Scale (TSI)Score of the Female Teacher Educators as Dependent Variable

	Sum of Squares	df	Mean Square	F	Sig.
Regression	0.404	3	0.135	10451.803	0.000
Residual	0.001	113	0.000		
Total	0.406	116			

Table-5.3(d) shows ANOVA in multiple regression analysis, from where we can see that the F was highly significant.

Table-5.3(e): Coefficients in Multiple Regression Analysis with Variables Entered in Multiple Regression Analysis Teacher Stress Inventory Scale (TSI) Score of the Female Teacher Educators as Dependent Variable

Predictors	Un-standardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	β		
(Constant)	2.933	0.002		1511.037	0.000
Student Engagement	-0.008	0.001	-0.181	-11.806	0.000
Instructional Strategies	-0.116	0.001	-2.566	-162.380	0.000
Classroom Management	-0.098	0.001	-1.967	-117.836	0.000

Table-5.3(e) shows the coefficient of multiple regression analysis. The linear multiple regression equation was as follows:

TSI = 2.933 - 0.008 × Student Engagement - 0.116 × Instructional Strategies - 0.098 × Classroom Management

$$\textbf{TSI} = \begin{vmatrix} 2.933 \\ -0.008 \\ \\ -0.116 \\ -0.098 \end{vmatrix} \times \begin{array}{|c|c|c|c|} \hline 1 & \text{Student Engagement} & \text{Instructional Strategies} & \text{Classroom Management} \\ \hline \end{array}$$

The independent variables (subscales of ***Teacher Sense of Efficacy***) put their highly (statistically) significant negative effects in manifestation of ***Occupational Stress.***

6. Discussion on the Result of Multiple Regression Analysis

The results of multiple regression analysis considering ***Teacher Stress Inventory (TSI)*** score of the teacher educators as dependent variable and different dimensions of ***Teachers' Sense of Efficacy Scale (TSES)*** score as independent variables were presented in the previous section.
Three analyses were done considering – (a) the total teacher educators irrespective of gender (male & female) as a whole, (b) male teacher educators only and (c) female teacher educators only. The discussions on the three cases are placed herewith.

6.1 Considering the Total Teacher Educators as a Whole

Discussions on the results of multiple regression analysis considering total teacher educators as a whole irrespective gender are placed herewith.
The independent variables (subscales of ***Teacher Sense of Efficacy***) put their highly (statistically) significant negative effect in manifestation of ***Occupational Stress.*** Three subscales of ***Sense of Efficacy*** such as, ***Student Engagement, Instructional Strategies and Classroom Management*** put their negative effect on ***Occupational Stress*** of the teacher educators (considering the total teacher educators as a whole), of self-financed B.Ed. colleges of South 24 Parganas district, in West Bengal. Therefore, the hypothesis $\mathbf{H_1}$ was accepted.

6.2 Considering the Male Teacher Educators only

Discussions on the results of multiple regression analysis considering male teacher educators are placed herewith.
The independent variables (subscales of ***Sense of Efficacy***) put their highly (statistically) significant effect in manifestation of ***Occupational Stress.*** Three subscales of ***Sense of Efficacy*** such as, ***Student Engagement, Instructional Strategies and Classroom Management***put their negative effect on ***Occupational Stress*** of the male teacher educators of self-financed B.Ed. colleges of South 24 Parganas district, in West Bengal.Therefore, the hypothesis $\mathbf{H_2}$ was accepted.

6.3 Considering the Female Teacher Educators only

Discussions on the results of multiple regression analysis considering female teacher educators are placed herewith.
The independent variables (subscales of ***Teacher Sense of Efficacy***) put their highly (statistically) significant effect in manifestation of ***Occupational Stress.*** Three subscales of ***Sense of Efficacy*** such as, ***Student Engagement, Instructional Strategies and Classroom Management***put their negative effect on ***Occupational Stress*** of the female teacher educators of self-financed B.Ed. colleges of South 24 Parganas district, in West Bengal.Therefore, the hypothesis $\mathbf{H_3}$ was accepted.

Finally, the three subscales of sense of efficacy indicate that teacher educator's occupational stress is negatively impacted, regardless of their gender and totality. From this findings it may be said that enhancing sense of effecacy can assist in lowering teacher educator's occupational stress. The similar findings are also reported by **Rani and Sharma (2020),** a significant nagative correlation was found between sense of efficacy and occupational stress in women tecahers. **Antoniou et al. (2023)** also showed that educators with high levels of self-efficacy typically view stressful events as more manageable and are better able to cope with them. Furthermore, **Bolton's (2018)** revealed that the significance of enhancing teachers' self-efficacy in terms of stress management. This demonstrates that a teacher may not struggle to achieve instructional success or the caliber of instruction that the pupils deserve if they are motivated and have a greater sense of their own abilities. Additionally, **(Rabaglietti et al., 2021)** observed tecahers with higher levels of self-efficacy are better equipped to manage high-pressure circumstances and also concluded that teachers' self-efficacy may be a valuable tool for coping with stressfull circumstances like those brought on by the Covid-19 outbreak. Furthermore, it was noted in the research of **Fathi and Derakhshan (2019)** that stress and self-efficacy are related. The degree of stress instructors face in their roles can be strongly influenced by their level of confidence and belief in their ability to carry out their teaching obligations efficiently.

Klassen and Chiu (2010) discovered that instructors who had high levels of stress in the classroom also had low levels of student engagement and self-efficacy in instructional practices. Also revealed that educators who are under more stress from their workloads typically feel more confident in their capacity to run their classrooms well**.** Furthermore, **Skaalvik and Skaalvik (2016)** found that higher levels of stress in the classroom were associated with poorer levels of teacher self-efficacy and plans to resign from their positions. **Ipek et al. (2018)** found that there was no statistically significant correlation found between teachers' self-efficacy and occupational stress. This indicates that there was no relationship between the two variables being studied. Put differently, low levels of stress connected to one's work may not always correlate with high levels of teacher self-efficacy and vice versa. Regarding the demographic data, it was discovered that none of the characteristics had anything to do with occupational stress.

7. Conclusion

Sense of efficacy puts significant effect in manifestation of occupational stress of the teacher educators of self-financed B.Ed. colleges, considering the total teacher educators as a whole, male teacher educators only and female teacher educators only. In all of the three cases of multiple regression analysis it was observed that all of the facets of sense of efficacy kept negative impact on occupational stress. So from the results of the multiple regression analysis it may be concluded that the occupational stress may be decreased by improving sense of effectiveness through appropriate counseling. Stress and self-efficacy are positively correlated in a substantial way. These results highlight how crucial it is to support educator's self-efficacy and deal with workplace stresses in order to improve their general wellbeing and performance in the classroom. Subsequent investigations and initiatives targeted at aiding educators in stress management and enhancing self-efficacy may result in noteworthy advantages for the academic environment.

References

1. Antoniou, A. S., Efthymiou, V., Polychroni, F. and Kofa, O. (2023). Occupational stress in mainstream and special needs primary school teachers and its relationship with self-efficacy. Educational Studies, 49(1), 200-217.
2. Ashton, P. T. and Webb, R. B. (1986).Making a difference: Teachers' Sense of efficacy and student achievement. New York: Longman.
3. Bakar, A. R. et al. (2006). Teaching Efficacy of Universiti Putra Malaysia Science Trainee Teachers. Faculty of Educational Studies, Universiti Putra Malaysia, 1-13. https://www.researchgate.net/publication/234595025
4. Bandura, A. (1977). Self-efficacy toward a unifying theory of behavioural change. Psychological review, 84(2), 191-215.
5. Bandura, A. (1986). Social foundation of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall.
6. Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. Educational Psychologist, 28(2), 117–148.
7. Bolton, A. (2018).Teachers' job satisfaction, stress, self-efficacy and beliefs about self-regulated learning. Honors, Thesis, Department of Psychology, King's University College at Western University, London, Canada. https://ir.lib.uwo.ca/cgi/viewcontent
8. Borg, M., Riding, R. andFalzon, J. (1991). Stress in Teaching: A study of Occupational Stress and its determinants, Job Satisfaction and Career Commitment among Primary school teachers. Educational Psychology, 11(1), 59-75.
9. Brouwers, A. and Tomic, W. (1999). Teacher Burnout, Perceived Self-Efficacy in Classroom Management, and Student Disruptive Behaviour in Secondary Education. Curriculum and Teaching, 14(2), 7-26.
10. Chan, D. (2007). Burnout, Self-efficacy, and Successful Intelligence among Chinese Prospective and In-service School Teachers in Hong Kong. Educational Psychology, 27(1), 33-49. doi:10.1080/01443410601061397
11. Chen, B., Wang, L., Li, B. and Liu, Weixing. (2022). Work stress, mental health, and employee performance. doi: 10.3389/fpsyg.2022.1006580
12. Das, A. and Ghosh (Gayen), S. (2018). A Comparetive study on job stress of teachers of Government aided and self-financed B.Ed colleges. Journal of Emerging Technologies and Innovative Research, 5(8), 946-950.
13. De Stasio, S., Fiorilli, C., Benevene, P., Uusitalo-Malmivaara, L. and Chiacchio, C. D. (2017). Burnout in special needs teachers at kindergarten and primary school: Investigating the role of personal resources and work wellbeing. Psychology in the Schools, 54(5), 472-486.
14. Fathi, J. and Derakhshan, A. (2019). Teacher self-efficacy and emotional regulation as predictors of teaching stress: An investigation of Iranian English language teachers. Teaching English Language, 13(2), 117-143.
15. Fimian, M. J. (1988).Teacher Stress Inventory. Clinical Psychology Publishing.

16. Flores, M. A. (2001). Person and Context in Becoming a New Teacher. Journal of Education Teaching, 27(2), 135-148.
17. Fox, S. and Stallworth, L. E. (2010). The battered apple: An application of stressor emotion-control/support theory to teachers' experience of violence and bullying. Human Relations, 63(7), 927-954.
18. Gibson, S. and Dembo, M. H. (1984). Teacher efficacy: A construct validation. Journal of Educational Psychology, 76(4), 569-582.
19. Han, J., Yin, H., Wang, J. and Bai, Y. (2020). Challenge job demands and job resources to university teacher well -being: the mediation of teacher efficacy. Studies in Higher Education, 45(8), 1771-1785.
20. Ipek, H., Berber, G., Akcay, A. and Yilmaz, T. S. (2018). The relationship between occupational stress and teacher self-efficacy: A study with EFL Instructor. Anadolu Journal of Educational Science International (AJES1), 8(1), 126-150. doi: 10.18039/ajesi.393945.
21. Jex, S. and Gudanowski, D. (1992). Efficacy beliefs and work stress: An exploratory study. Journal of Organizational Behavior, 13(5), 509-517.
22. Khurshid, F. Qasmi, F. N. and Ashraf, N. (2012). The relationship between teachers' Self-Efficacy and their perceived Job Performance. Interdisciplinary Journal of Contemporary Research in Business, 3(10), 204-223.
23. Klassen, R. M. and Chiu, M. M. (2010). Effects on teachers self efficacy and job satisfaction: Teacher gender, years of experience, and job stress. Journal of Educational Psychology, 102(3), 741 -756.
24. Kyriacou, C. (2001). Teacher stress: Directions for future research. Educational Review, 53(1), 27-35.
25. Lauermann, F. and Konig, J. (2016). Teachers' professional competence and wellbeing: Understanding the links between general pedagogical knowledge, self-efficacy and burnout. Learning and Instruction, 45, 9-19.https://doi.org/10.1016/j.learninstruc.2016.06.006
26. Lee, J., Kim, E. and Wachholtz, A. (2016). The effect of perceived stress on life satisfaction: The mediating effect of self-efficacy. Ch'ongsonyonhak yongu, 23(10), 29.
27. Muliati, L., Asbari, M., Nadeak, M., Novitasari, D. and Purwanto, A. (2022). Elementary school teachers performance: how the role of transformational leadership, competency, and self-efficacy? International Journal of Social And Management Studies (IJOSMAS), 3(1), 158-166.
28. Rabaglietti, E., Lattke, L. S., Tesauri, B., Settanni, M. and De Lorenzo, A. (2021). A balancing act during covid-19: teachers' self-efficacy, perception of stress in the distance learning experience. Frontiers in psychology, 12, 644108.doi: 10.3389/fpsyg.2021.644108
29. Rani, A. and Sharma, S. (2020). Occupational Stress in Relation to Teacher Self – Efficacy and Spiritual Intelligence of Women Teachers. Biosc. Biotech. Res. Comm., 13(4).DOI: http://dx.doi.org/10.21786/bbrc/13.4/89
30. Roxas, C. C. (2009). Stress among public elementary school teachers. University of the Cordilleras Research Journal, 1(4). 86-107.
31. Schwarzer, R and Hallum, S. (2008). Perceived teacher as self-efficacy as predictor of job stress and burnout: Mediation analyses. Applied Psychology, 57(s1), 152-171.
32. Sharma, S., (2020). The predictive influence of Teaching Experience and Psycho-Social problems on Teacher Self-Efficacy of school women teachers. Journal of the Indian Academy of Applied Psychology, 46(1), 43-47.
33. Sharma, S., and Kaur, R. (2017). Self-efficacy of Women Teachers in the State of Punjab. Educational Quest- an International Journal of Education and Applied Social Sciences, 8(1), 179-182.
34. Sharma, S., and Marwaha, M. (2020). An empirical assessment on self-efficacy and occupational stress among school teachers. Journal of the Social Sciences, 48(4), 1290-1305.
35. Skaalvik, E, M. and Skaalvik, S. (2007). Dimensions of teacher self-efficacy and relation with strain factors, perceived collective teacher efficacy, and teacher burnout. Journal of Educational Psychology, 99(3), 611-625.
36. Skaalvik, E. M., and Skaalvik, S. (2016). Teacher stress and teacher self-efficacy as predictors of engagement, emotional exhaustion, and motivation to leave the teaching profession. Creative Education, 7(13), 1785-1799.
37. Suico, C. J. S., Dy, J. A., Tuazon, D. R. A., Zenith, K. S., Asople, A. R., Barreza, J. E., Berte, J. J. L., Jungco, E. J. C., Piastro, E. P. D., Supranes, J. M. V., Krystal, J. M. Clamares., Anna, M. O. and Pelandas, M. (2024). The Relationship between Occupational Stress and Self-Efficacy among secondary school teachers. doi: https//dx.doi.org/10.47772/1JRISS.2024.804241
38. Tomas, J. (2021). Occupational Self-Efficacy as a Mediator in the Reciprocal Relationship between Job Demands and Mental Health Complaints: A Three-Wave Investigation. International Journal of Environmental Research and Public Health, 18, 11532. https://doi.org/10.3390/ijerph182111532
39. Travers, C. (2017). Current knowledge on the nature, prevalence, sources and potential impact of teacher stress. Educator Stress, 23-54.
40. Troesch, L. M. and Bauer, C. E. (2017). Second career teachers: Job satisfaction, job stress, and the role of self-efficacy. Teaching and Teacher Education, 67, 389-398.
41. Tschannen-Moran, M. and Hoy, A. W. (2001). Teacher Efficacy: Capturing an elusive construct. Teaching and Teacher Education, 17(7), 783-805.

42. Unal, S. (2000). Professional stress of teachers, its indicators and coping attitudes. Hacettepe Universitesi Egitim Fakultesi Dergisi, 19, 149-155.
43. Wapanno, M. R. R. (2021) Emotional Intelligence, Self-efficacy and Occupational Stress of Academic Personnel. International Journal of Research and Innovation in Social Science (IJRISS), 5(5), 264-275.