

Occupational Stress: Associated Factors, Related Symptoms, and Coping Strategies Among Secondary School-heads

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This study examined occupational stress, its related symptoms, associated factors, and coping strategies among heads of secondary schools in Kohat Division, Pakistan. A sample of 101 secondary school-heads was taken using a multistage sampling technique. Occupational Stress Index (Shrivastava & Singh, 1981) followed by four open-ended questions was used to investigate the study variables. Findings revealed that heads of secondary schools were occupationally stressed in their workplace. The most associated factors causing occupational stress were poor compensation, work overload, lack of effective advancement and promotion policy, poor implementation of education policy, lack of basic facilities, political interference, and under-participation. Several symptoms such as headaches, alterations in blood pressure, and digestive problems, were found to be associated with an increased risk of occupational stress. Furthermore, various related perceived physiological, psychological, and behavioral consequences were found to be caused by stress at work. Findings suggest that a comprehensive strategy promoted by the education department should be recommended for reducing stress among secondary school-heads and improving their wellbeing and other health-related conditions at the workplace.

Keywords. Occupational stress, associated factors, related stress symptoms, coping strategies

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In the current technologically advanced era, the working environment in contemporary society is constantly changing with globalized economies, and the new organizational policies and technologies have brought about new demanding situations for employees (Jehangir et al., 2011). Therefore, leadership has been increasingly recognized as imperative for boosting the organization's overall activities through a vibrant environment, friendly relationships, adequate resources, and student achievement (Marzano, Waters, & McNulty, 2005; Suleman et al., 2018). It has been recognized as being an ultimate component of an organization and plays a leading role in building up an organization. Leaders are incapable of fulfilling their obligations efficiently if they are incompetent, displeased, and unsafe in the workplace. Leaders confronting problems in a workplace may cause different unfavorable outcomes for institutions and their personnel (Suleman et al., 2018). Therefore, occupational stress is the intervening variable that is directly linked negatively to employees' prosperity and organizational profitability (Mohajan, 2012).

During the 19th century, stress was not perceived in the workplace, but occupational stress has grown alarmingly over the span of the last 40 years because of globalization and global economic crises which have been influenced all nations, all classes of employees, and all professions, families, and societies. Consequently, it has turned into a fundamental issue in all workplaces (Mohajan, 2012). The workplace of the 21st century such as educational institutions can be a dynamic, fast-paced, extraordinarily boosting environment that carries an oversized variety of opportunities and advantages to employees. The dynamic needs of the operating world will increase the level of stress mainly for people who are constantly performing under pressure. Though pressure has its wonderful impact on stimulating performance, but when this pressure becomes immoderate, it causes stress and creates undesirable outcomes (Al-khasawneh & Futa, 2013).

Today's educational institutions will undergo major changes in their operations. Therefore, educational institutions must make serious efforts to develop reliable strategies or mechanisms to make their employees feel happy and relaxed. Due to the ever-increasing demands on them, they must work hard for a long time to meet their expectations about work productivity. This places a heavy burden on them. Therefore, their expectations and work pressure have a significant impact on their performance. Many people face occupational stress at the workplace; however, they do not show their stress because of the worry of discrimination, which badly affects

work motivation among the employees and organization causing poor work productivity (Rasool et al., 2020). This study focuses on examining occupational stress and its associated factors, related symptoms, and coping strategies among secondary school-heads (Principals, vice principals, headmasters, headmistresses). Past studies have revealed that stress at work reduces employees as well as organizational productivity. Occupational stress in the workplace reduces productivity as it gives a bad name to the organization and promotes toxicity among coworkers. Therefore, this issue requires more research and attention from researchers in order to determine the possible causes, symptoms, impacts, and strategies for stakeholders and organizations to manage workplace stress (Rasool et al., 2020; Tamunomiebi & Mezeh, 2021).

Occupational Stress

Stress, according to the European Social Partners (2004), is characterised by bodily, psychological, or social complaints or dysfunctions and is caused by individuals' inability to meet the demands or expectations imposed on them. Job stress is described as the detrimental physical and emotional responses that take place when a worker's capabilities, resources, or needs do not match the job's requirements. Workplace stress can result in ill health and even injury (NIOSH, 1999). According to Beehr and Newman (1978), occupational stress is a situation emerging from the interaction of individuals and their occupations and characterized by changes within people that compel them to diverge from their usual working. Thus, occupational stress is caused by ongoing situations produced by conditions in the working atmosphere that undesirably influence employees' advancement and overall prosperity. It occurs because of employees' professional factors adjusting their mental and bodily conditions, which generally makes the individual's body or mind deviate from its normal working (Yahaya et al., 2009).

Causes of Occupational Stress

For many organizations, occupational stress has become a major concern in the ever-growing economic situation throughout the world due to overwork, lack of autonomy, lack of job security, and low job satisfaction in organizations (Mujtaba et al., 2020). Research has revealed that there are various fundamental causes contributing to stress in different associations, i.e., outstanding workload, clashes among employees and associations, role ambiguity, bothersome and disillusioning interpersonal connections, job independence, client

contact, and a loss of control and communal support (Suleman et al., 2018). The basic reasons for occupational stress include feelings of being ill-treated, long working hours, inadequate recognition or reward for good performance, lack of professional stability, office politics, and, in particular, high demands to achieve targets without adequate authority or resources (American Institute of Stress, 2017). The basic causes for stress in the workplace are reported as mistreatment, feeling powerless and uninvolved in picking one's own obligations, badgering, lack of workable communication, unreasonable performance demands, lack of viable conflict resolution, the precariousness of organization, political issues among workforces, long working hours, poor remuneration, and pressures upsetting work-life balance (Csillag et al., 2008). Conversely, personality also plays an important role in expressing job-stress-related symptoms. Personality traits like neuroticism, openness, psychoticism, extraversion, and impulsiveness, etc., also have influences on occupational stress as personality is related to conditions such as violence, anxiety, depression, hopelessness, dissatisfaction, or anger (Bergomi et al., 2017).

According to Desa et al. (2014), personality is substantially related to occupational stress. Psychoticism and neuroticism have a positive relationship with job stress while extraversion is negatively associated with job stress. Extraversion is a good predictor of occupational stress as extraversion builds the inclination of a person to experience constructive feelings and pleasure. Psychoticism and neuroticism cause the tendency of an individual to experience undesirable feelings, and this propensity will act towards occupational stress. Neurotic individuals tend to experience undesirable feelings such as depression, emotional instability, nervous meltdown, over-anxiousness, and hyper-reactivity, and this tendency will act towards occupational stress.

Symptoms of Occupational Stress

Occupational stress can be identified through various symptoms or indicators. Symptoms possibly related to occupational stress may be different for different individuals and are classified as physical, behavioral, and emotional symptoms. Physical symptoms consist of an aching heart, pain, and tightness in the chest, skin irritation, unconsciousness, digestive problems, frequent colds, flu or other infections, headaches, breathing difficulty, nausea, the reappearance of previous diseases, diarrhea or constipation, rapid weight loss or gain, muscle twitches, exhaustion, and disrupted menstrual pattern in

females (Schultz & Schultz, 2002). The emotional indicators include feeling worried, swings in mood, uneasiness, feelings of helplessness, worrying, irritability, lack of self-esteem, loss of self-confidence, feeling stressed, exhausted, lack of attentiveness, cynicalness, and withdrawal into daydreams (Malta, 2014). Conversely, the behavioral symptoms include being more accident-prone, sleeping disorders and tiredness, poor performance, sex problems, smoking, social isolation, increased drinking of alcohol, being too busy to relax, poor time management, dependence on drugs, not taking care of oneself, overeating or loss of hunger, and impaired speech (Mead, 2000).

Consequences of Occupational Stress

Occupational stress is a critical issue with leadership and management in many organizations. Stress may determine issues such as poor performance, domestic problems, unsatisfactory communal connections, wellbeing issues, and fruitless organization. Stress influences employees' productivity, self-esteem, self-confidence, and encouragement as well as organizational cost-effectiveness. It also leads to creating health problems including depression, insomnia, and heart disease (Manoj, 2013). An extensive body of research has revealed that occupational stress causes various health issues and undesirable behaviors. These health issues fluctuate but the most commonly reported issues are backaches, headaches, muscle pains, stomach pains, stomach swelling, constipation, heart problems, high blood pressure, depression, tension, asthma, and irritability. These health issues would certainly vary from individual to individual. However, due to these negative aspects, work productivity and quality decline, and illness and absenteeism increase (Bergström et al., 2017). According to Wadesango et al. (2015), although there are different consequences of stress depending on the conditions and individuals' characteristics, the consequences are consistently unexpected. Uneasiness, sadness, downheartedness, disappointment, and tension are the possible outcomes. Stress has undesirable effects on employees' prosperity. Occupational stress has frequently been perceived as an incapacitating human phenomenon. Stress has detrimental influences on workers' behavior which adversely affects organizational as well as personal efficiency.

Occupational stress affects people's psychological well-being by causing anxiety and depression, as well as reducing their ability to concentrate, work efficiently, and make decisions. The harmful health impacts include mental disorders, cardiovascular disorders, gastrointestinal disease, diabetes, high blood pressure, poor immune

system, workplace accidents, and increased risks of using health services (Mustafa et al., 2015). Similarly, Mosadegrad (2014) concluded that high occupational stress is linked with an increased risk of bodily injury, hypertension, cardiovascular disease, depression, and bad personal behaviors (i.e., fear, anger, and irritability). Ashton (2017) expressed that occupational stress leads to absenteeism, retirement intentions, interpersonal difficulties, and poor organizational performance. Kaur (2011) believes that occupational stress will affect employees' quality of life and overall physical and mental health, and lead to frustrating emotions i.e., anxiety and depression, thereby affecting employees' ability to work or deal with day-to-day life.

Conclusively, occupational stress is categorized into three categories such as psychological strain, physical strain, and behavioral strain (Suleman et al., 2018). Psychological strain includes disappointment, trepidation, tension, sleeping disorder, dysphoria, impatience, and restlessness. The results of stress may be emotional in appearance—sentiments of ill-defined apprehension, disillusionment, demoralization, low self-respect, dread, and disappointment, with a possible extreme outcome being burnout (Spector, 1998; Suleman et al., 2018a). Physical strain is hypothesized to show up in signs that is irregularities in blood eosinophil, hypertension, cardiac issue, asthma, ulcers, fatigue, weakness, and high serum cholesterol (Downs et al., 1990). The indicators of a behavioral strain include regular cigarette smoking, constant liquor, and recreational medicine misuse, poor performance, absenteeism, dithering, viciousness, overeating, increased inclination to accidents, and frequent hospitalization (Edwards et al., 1998).

Occupational stress is a variable that adversely affects the performance of individual and organizational productivity (Bergström et al., 2017; Wadesango et al., 2015). Globally, various studies have been conducted on employees' stress in the workplace in different contexts such as business, engineering, medical education, and higher education (Margaret et al., 2018; Suleman et al., 2018b; Tamunomiebi & Mezeh, 2021). The role of a school principal in leading an institute toward accomplishment has become more, dynamic, multifaceted, and complex. Therefore, a principal in stressful conditions will bring various undesirable and negative consequences to an educational institution, teaching, and non-teaching staff. Consequently, it will have negative impacts on the overall performance of an educational institution. Therefore, proper attention needs to be given to make its work more satisfying, attractive, compensated, and fulfilling.

After studying the literature, it was found that occupational stress act as a distressing ingredient for the demolition of an organization and for its employees. Therefore, it is the most important variable to be considered in any organization. According to a review of the literature, some related studies on occupational stress have been conducted in Pakistan (Abbas et al., 2021; Khalid et al., 2020; Rasool et al., 2020; Suleman et al., 2018a), but unfortunately, the heads of secondary educational institutions have been completely ignored in this regard, demonstrating the carelessness of educational researchers in Pakistan, particularly in the province of Khyber Pakhtunkhwa. Furthermore, previously, no research study has been conducted on the associated factors, related symptoms, consequences, and coping strategies of occupational stress among educational leaders at secondary level in Khyber Pakhtunkhwa although it is imperative to explore the related variables of occupational stress. Therefore, the researchers have made an attempt to cover the gap in this area through this research study which would be helpful for policymakers, curriculum developers, educationists, and educational administrators for formulating necessary measures to minimize occupational stress of secondary-school-heads in order to ensure organizational productivity. Conclusively, the focus of the problem is to assess occupational stress in the context of associated factors, related symptoms, and coping strategies among secondary school-heads.

Significance of the Study

The study has important implications for school leaders at each level that is, elementary, secondary, and higher education. The findings may help the educationists in ensuring a working environment that has less and more manageable for occupational stressors and thus empowers the principals to create a dynamic, vibrant, and supportive work atmosphere that will increase productivity. Thus, the principals will articulate an interest in their subordinates and students to stimulate their performance. The findings will also be supportive for policymakers, curriculum developers, educationists, and educational administrators for formulating necessary measures to minimize occupational stress of secondary-school-heads to ensure overall organizational productivity and efficiency.

Objectives

1. To examine occupational stress among secondary school-heads.
2. To explore the underlying associated factors related to occupational stress among secondary school-heads.
3. To investigate the physical, emotional, and behavioral symptoms associated with occupational stress.
4. To study the possible psychological, physiological, and behavioral consequences associated with occupational stress among secondary school-heads.
5. To determine the coping strategies for reducing occupational stress among secondary school-heads.

Method

Participants

The study was conducted in Kohat Division located in the Khyber Pakhtunkhwa province, Pakistan. It is divided into three districts, namely, Kohat, Hangu, and Karak. There were total 199 secondary schools in these districts. The sample frame was composed of total 199 secondary school-heads (e.g., principals, vice-principals, headmasters, and headmistresses) including 132 male heads and 67 female heads (EMIS, 2016). The multistage sampling technique is extensively utilised in educational research because it is more exact, suitable, systematic, convenient, and trustworthy. It is used when the research participants are dispersed and there are not enough resources to go around. Depending on the characteristics of the population, several sampling processes, such as simple random sampling and stratified sampling, may be used to select a sample at each stage.

In educational research, the multistage sampling technique is widely used as it is more precise, appropriate, systematic, convenient, and reliable. It is utilized when the research participants are broadly scattered, and enough resources are not available. Various sampling procedures might be employed for choosing a sample at each stage as per the nature of the population, for example, simple random sampling and stratified sampling (Chauvet, 2015; Suleman et al., 2018a). In this study, the population was broadly scattered; therefore, a multistage sampling technique was assumed by the researchers for the selection of sample. Hence, at first stage, boys' and girls' secondary schools in each district were selected through a stratified random sampling technique (as the population was heterogeneous due to gender at this stage). At second stage, 50% male and 50% female heads from each

district were nominated randomly in order to ensure adequate representation of the population. Thus, a total sample of 101 heads (male $n = 67$; female $n = 34$) was selected (see Table 1).

Table 1
Details of the Population and Sample Size

Districts	Secondary School-Heads			
	Population		Sample	
	Male	Female	Male	Female
Kohat	49	30	25	15
Hangu	27	9	14	5
Karak	56	28	28	14
Total	132	67	67	34

Measures

The purpose of this research was to assess the symptoms, associated factors, possible consequences, and coping strategies related to occupational stress. A survey design was adopted and a self-reported standardised tool, the Occupational Stress Index (Shrivastava & Singh, 1981), was used to assess secondary school-heads' occupational stress. It is a well-known measure for assessing work-related stress. The scale is specially designed for determining the stress perceived by the employees from various dimensions and settings concerning to their position. The scale consists of 12 sub-dimensions (see Table 2) and contains 46 items. The reliability coefficient measured by the split-half (odd-even) strategy and Cronbach's alpha coefficient for the scales were found to be .93 and .90; respectively. To investigate the associated factors, related symptoms, possible perceived consequences, and coping strategies of occupational stress, four open-ended questions were included at the end of the OSI (Suleman et al., 2018a).

Validity and Reliability

OSI is a highly validated, standardized scale which is widely utilized for measuring occupational stress all over the world. As it was translated into Urdu version, so, it was pilot tested in 20 secondary schools. For this purpose, it was distributed among 20 secondary school-heads (10 males and 10 females) and their responses were documented. Based on the analysis, OSI was found to be substantially

validated in the prospective population area. The validity of the instrument is necessary for the precise outcomes of a research study. So, in addition to pilot testing, validity and reliability were also confirmed. The validity of the OSI was confirmed by a board of five specialists holding Ph.D degrees and having outstanding experience. As a result, only some minor changes were made in the language of the OSI. In addition, the reliability of the instrument was checked through Cronbach's Alpha. The average reliability coefficient of the OSI was found to be .86 (Suleman et al., 2018a). Table 2 depicts the average internal consistency reliability of the OSI.

Table 2

Reliability Coefficients of the Occupational Stress Index and Its Subscales

Subscales of OSI	No. of Items	Cronbach's Alpha
Role Overload	6	.89
Role Conflict	5	.87
Role Ambiguity	4	.78
Responsibility for Persons	3	.91
Unreasonable Group & Political Pressure	4	.76
Powerlessness	3	.89
Under Participation	4	.84
Intrinsic Impoverishment	4	.87
Low Status	3	.82
Peer Group Relations	4	.84
Unprofitability	2	.88
Strenuous Working Conditions	4	.93
Total Scale of OSI	46	.86

Procedure

The researchers visited the sample schools and met the participants. They were explained the purpose of this cross-sectional research study and its possible implications, realities, and consequences. After obtaining verbal informed consent from each participant, the questionnaires were given to participants for seeking their information regarding, occupational stress, its associated factors, related symptoms, and coping strategies. Due to a follow-up study, 100% of responses were collected successfully from the actual sample subjects.

Results

In this cross-sectional study, 101 secondary school-heads (male = 67, female = 34) participated at the request of investigators after attaining formal permission. As shown in Table 3 with respect to age, 6.93% of participants were in the age group 30-34 years, 13.86% were in the age group 34.1-39 years, 20.79% were in the age group 39.1-44 years, and 58.42% were in the age group 44.1 years and above. In terms of experience, 42.57% of participants had 1-4 years, 26.73% had 4.1-9 years, 18.81% had 9.1-14 years, and 11.88% had 14.1 or more years of experience. In terms of academic qualification, 10(9.90%) participants were bachelor's degree holders, 84(83.16%) were master's degree holders, 5(4.96%) were M.Phil degree holders, and 2(1.98%) were PhD degree holders. In terms of professional qualification, 56(55.45%) participants were bachelor's degree holders, 40 (39.60%) were master's degree holders, 3(2.97%) were M.Phil degree holders, and 2 (1.98%) was a PhD degree holder. With respect to the locality, 19(18.81%) of the participants belonged to urban localities while 82(81.19%) heads belonged to rural localities.

Table 3

Descriptive Statistics of Participants' Demographic Characteristics

Variables	Categories	<i>f</i>	%
Gender	Male	67	66.34
	Female	34	33.66
Age (in years)	30-34	07	6.93
	34.1-39	14	13.86
	39.1-44	21	20.79
	44.1 and Above	59	58.42
Experience (in years)	1-4	43	42.57
	4.1-9	27	26.73
	9.1-14	19	18.82
	14.1 and above	12	11.88
Academic Qualification	B.A	10	9.90
	M.A	84	83.16
	M.Phil	05	04.96
	Ph.D	02	01.98
Professional Qualification	B.Ed	56	55.45
	M.Ed	40	39.60
Locality	M.Phil (Edu)	03	02.97
	Ph.D (Edu)	02	1.98
Locality	Urban	19	18.81
	Rural	82	81.19

Descriptive Statistics of Occupational Stress

The descriptive statistics in Table 4 indicate that the heads of secondary schools were found to be occupationally stressed on the whole. With regard to subscale analysis, the most rated subscale of occupational stress was unprofitability followed by role overload and unreasonable group and political pressure. The other subscales of occupational stress were rated as strenuous working conditions, role conflict, and under participation. Additionally, the study also revealed that secondary school-heads were not occupationally stressed by responsibility for persons, powerlessness, low status, peer group relations, role ambiguity, or intrinsic impoverishment.

Table 4

Descriptive Statistics of the Occupational Stress

Variables	Min	Max	$M \pm SD$	Skewness	Kurtosis
OST	2.11	4.23	3.10 \pm 0.39	0.42	0.07
ROL	2.00	5.00	3.58 \pm 0.58	0.08	0.22
RA	1.25	4.00	2.72 \pm 0.69	0.16	-0.82
RC	1.60	5.00	3.44 \pm 0.85	0.08	-0.74
UGPP	1.75	5.00	3.58 \pm 0.70	0.06	-0.16
RP	1.00	4.67	2.77 \pm 0.94	-0.10	-1.02
UP	1.50	5.00	3.39 \pm 0.80	0.05	-0.22
P	1.33	4.00	2.57 \pm 0.59	0.02	-0.53
PGR	1.50	4.00	2.65 \pm 0.61	0.13	-0.72
Int. Imp.	1.50	4.00	2.68 \pm 0.57	-0.06	-0.62
LS	1.33	4.00	2.63 \pm 0.63	0.10	-0.61
SWC	1.25	5.00	3.57 \pm 0.72	-0.03	-0.00
U	1.50	5.00	3.59 \pm 0.87	-0.05	-0.59

Note. OST = Occupational Stress Total; ROL = Role Overload; RC = Role Conflict; RA = Role Ambiguity; RP = Responsibility for Persons; UGPP = Unreasonable Group and Political Pressure; P = Powerlessness; UP = Under-Participation; PGR = Peer Group Relation; LS = Low Status; Int. Imp. = Intrinsic Impoverishment; SWC = Strenuous Working Conditions; U = Unprofitability.

Descriptive Analysis of Open-Ended Questions

Associated factors related to occupational stress. Table 5 shows a number of associated factors that contribute to occupational stress. The most dominant factors are poor compensation, work overload, lack of effective advancement and promotion policy, poor implementation of education policy, lack of basic facilities, political

interference, and under-participation. Correspondingly, unfavorable interpersonal relationships, lack of technical and human resource support, rigid rules and regulations, disobedience and insubordination of staff, unfavorable school environment, gender discrimination, non-cooperative teamwork, lack of funding and resources, long working hours, and ineffective leadership are important factors contributing to occupational stress among secondary school-heads. Conversely, poor communication, sexual harassment, and poor health conditions were found to be the least important associated factors related to occupational stress.

Table 5

Descriptive Analysis of the Open-Ended Question Regarding Associated Factors Related to Occupational Stress

Associated Factors Related to Occupational Stress	<i>f</i>	(%)
Poor Compensation	93	92.08
Work Overload	92	91.09
Lack of Effective Advancement and Promotion Policy	91	90.10
Poor Implementation of Education Policy	87	86.14
Lack of Basic Facilities	84	83.17
Political Interference	81	80.20
Under-Participation	80	79.21
Unfavorable Interpersonal Relationships	75	74.26
Lack of Technical and Human Resource Support	73	72.28
Rigid Rules and Regulations	66	65.35
Disobedience and Insubordination of Staff	63	62.38
Unfavorable School Environment	56	55.45
Gender Discrimination	54	53.47
Non-Cooperative Teamwork	54	53.47
Lack of Funding and Resources	53	52.48
Long Working Hours	51	50.50
Ineffective Leadership	51	50.50
Poor Communication	41	40.59
Sexual Harassment or Bullying	25	24.75
Poor Health Conditions	06	05.94

Symptoms associated with occupational stress. Table 6 indicates that there are various physical, emotional, and behavioral symptoms of occupational stress. In the case of physical symptoms, headaches, abnormal blood pressure, and digestive problems, e.g.,

constipation, diarrhea, etc., were the most influential symptoms related to occupational stress. Other physical symptoms of occupational stress were irritability, exhaustion, rapid weight loss/gain, and nausea. In the case of emotional symptoms, depression, loss of appetite, and poor job performance and were factors most strongly associated with occupational stress. Similarly, other emotional symptoms associated with occupational stress were found such as being cynical, loss of confidence, lack of concentration, and feeling helpless. Behavioral symptoms were found such as insomnia, absenteeism, poor time management, increased use of smoking and drugs, ill-temperedness, and accidents.

Table 6

Descriptive Analysis of the Open-Ended Question Regarding Symptoms Associated with Occupational Stress

Symptoms of Occupational Stress		<i>f</i>	(%)
Physical Symptoms	Headaches	92	91.09
	Abnormal Blood Pressure	90	89.11
	Digestive Problems (Constipation, Diarrhea)	83	82.18
	Irritability	81	80.20
	Exhaustion	80	79.21
	Rapid Weight Loss/Gain	73	72.28
	Nausea	52	51.49
Emotional Symptoms	Depression	91	90.10
	Loss of Appetite	86	85.15
	Poor Job Performance	81	80.20
	Being Cynical	76	75.25
	Loss of Confidence	72	71.29
	Lack of Concentration	70	69.31
	Feeling Helpless	56	55.45
Behavioral Symptoms	Insomnia	86	85.15
	Absenteeism	81	80.20
	Poor Time Management	71	70.30
	Increased Use of Smoking and Drugs	71	70.30
	Ill-Temperedness	66	65.25
	Accidents	50	49.50

Possible perceived consequences associated with occupational stress. As presented in Table 7, occupational stress has physiological, psychological, and behavioral associated factors affecting individuals in the workplace. In case of physiological effects, the most important

possible perceived consequences were sleeping disorders and restlessness, headache, gastrointestinal disorders, and alterations in blood pressure.

Table 7
Descriptive Analysis of the Open-Ended Question Regarding Possible Perceived Consequences of Occupational Stress

Consequences of Occupational Stress		<i>f</i>	(%)
Physiological Effects	Alterations in Blood Pressure	77	76.24
	Cardiovascular Disorders	55	54.46
	Respiratory Disorders	32	31.68
	Headaches	82	81.19
	Gastrointestinal Disorders	81	80.20
	Sleeping Disorders & Restlessness	86	85.15
	Fatigue	72	71.29
	Accidents	54	53.47
Psychological Effects	Mental Diseases	81	80.20
	Job Dissatisfaction	92	91.09
	Anxiety, Depression, and Downheartedness	89	88.12
	Low Self-Regard	51	50.50
	Ill-Temperedness and Impatience	70	69.31
Behavioral Effects	Increased Alcohol and Recreational Medication Abuse	78	77.23
	Increased Cigarette Smoking	83	82.20
	Violence	61	60.40
	Absenteeism and Resignations	54	53.47
	Angriness	77	76.24
	Disobedience	66	65.35

Similarly, other physiological consequences were fatigue, cardiovascular disorders, and accidents, while respiratory disorders were found to be the least influential factors resulting from occupational stress. In the case of psychological effects, job dissatisfaction, anxiety, depression, and downheartedness, and mental diseases were found to be the most crucial effects of occupational stress. Likewise, ill-temperedness and impatience occur due to occupational stress while low self-regard was found to be the least factor resulting from occupational stress. With regard to behavioral factors, the primary possible perceived repercussions of occupational stress were found to be increased smoking, increased alcohol and

recreational drug misuse, and increased anger. In the same way, disobedience, violence, absenteeism, and resignations were generated due to occupational stress.

Coping strategies for reducing occupational stress. Table 8 indicates that occupational stress can be reduced by recognizing employees' good performance, providing opportunities for career development, introducing a culture that values the individual worker, appointing sufficient staff, rewarding handsome compensation, clearly defining duties and responsibilities, providing opportunities for professional growth, ensuring involvement in the decision-making process, providing opportunities for social interaction among the employees, discouraging political interference, ensuring a proper timescale, providing basic facilities, and ensuring a conducive, democratic, and vibrant environment.

Table 8
Descriptive Analysis of the Open-Ended Question Regarding Coping Strategies for Reducing Occupational Stress

Coping Strategies	<i>f</i>	(%)
Recognition of employees for good work performance	82	81.19
Career development opportunities	91	90.10
Conducive organizational culture for workers	89	88.12
Appointing sufficient staff to reduce the workload	90	89.11
Providing attractive salary packages	89	88.12
Clearly defining duties and responsibilities	74	73.27
Providing opportunities for professional growth	72	71.29
Providing opportunities for involvement in the decision-making process	79	78.22
Providing opportunities for social interaction among employees	66	65.35
Discouragement of political interference	80	79.21
Approving a proper timescale for advancement	87	86.14
Providing basic facilities	81	80.20
Ensuring a conducive, democratic, and vibrant environment	76	75.25

Discussion

Occupational stress is a very common issue amongst employees and its detrimental impacts on human wellbeing are increasing rapidly nowadays as compared to the previous era (World Health Organization, 2017). Numerous research findings indicate that the majority of the employees are facing a stressful situation in their

workplace (Ali et al., 2013; Massa, 2013). The findings of this cross-sectional study showed that secondary-school-heads are occupationally stressed with respect to role overload, unprofitability, unreasonable group, and political pressure, strenuous working conditions, role conflict, and under-participation, while they were not found to be dissatisfied with role ambiguity, powerlessness, peer group relations, responsibility for persons, intrinsic impoverishment, or low status. These findings are consistent with those of many previous research studies (Danjin et al., 2016; Jehangir et al., 2011; Juma et al., 2016; Massa, 2013).

A number of factors are responsible for occupational stress among employees in the workplace and cause unsatisfactory functioning, health issues, family disputes, unfavorable social relationships, and unsuccessful organization. According to Margaret et al. (2018), these factors include high workload, long working hours, inadequate educational facilities, poor living conditions, low salaries, and inadequate training. The findings of the cross-sectional study revealed that secondary-school-heads are given poor compensation, which makes their positions stressful. They perform extraordinary work which makes them exhausted. There is no effective policy for their advancement and promotion. Education policies are not implemented effectively. There is a lack of basic facilities which has adversely affected the overall school performance. Political interference is in full swing and they are also not involved in decision-making and policy formulation. In addition, other factors that contribute to occupational stress, such as unfavorable interpersonal relationships, lack of technical and human resource support, rigid rules and regulations, disobedience and insubordination of staff, unfavorable school environment, non-cooperative teamwork, lack of funding and resources, long working hours, gender discrimination, and ineffective leadership, are important associated factors causing occupational stress among secondary-school-heads. These findings are consistent with the findings of Prasad and Vaidya (2017) who concluded that work overload, employment insecurity, lack of job control, insufficient social support, prolonged working hours, and lack of rewards contribute to occupational stress. Similarly, Suraksha and Chikkara (2017) reported that factors like role overload, role ambiguity, unprofitability, low status, unreasonable group & political pressure, strenuous working conditions, role conflict, under-participation, powerlessness, peer group relations, responsibility for persons, and intrinsic impoverishment will substantially contribute to occupational stress. The findings of this study are in line with the findings of other many research studies (Afnan et al., 2018; Csillag et

al., 2008). Mustafa et al. (2015) concluded that occupational is caused by different organizational aspects such as environments, organizational atmosphere, and conflicts caused by employees' job demands. Likewise, Ornek and Sevim (2018) believe that stress takes place when the job requirements and obligations are not in sync with employees' skills or when the time allotted for the task is inadequate. Hence, this can lead to many negative organizational consequences and unhealthy behaviors.

Symptoms associated with occupational stress were classified into three categories: physical, emotional, and behavioral symptoms. Secondary school-heads reported a number of symptoms related to occupational stress that indicate that an individual is facing a stressful situation.

In the case of physical symptoms, they reported that an occupationally stressful individual will suffer from headaches, alterations in blood pressure, digestive problems (for example, constipation, diarrhea) which are the most influential symptoms. Further, they added that an occupationally stressed worker feels irritability and exhaustion. Their body will gain or lose weight abnormally and will suffer from nausea. In the case of emotional symptoms, they reported that occupationally stressed individuals will lose their appetite and their performance will be unsatisfactory. Furthermore, they expressed that being cynical, loss of confidence, lack of concentration, and feelings of helplessness are other emotional symptoms of occupational stress. With respect to behavioral symptoms, they responded that insomnia, absenteeism, poor time management, increased use of smoking and drugs, ill-temperedness, and accidents are the symptoms associated with occupational stress. The findings of this study are consistent with the findings of many other research studies (Malta, 2004; Roberts et al., 2012). The American Institute of Stress (2020) reported that stress is diagnosed through common headaches, extreme worry, constant fatigue, guilt, and nervousness. Similarly, Kandola (2018) reported that in addition to the usual symptoms, stress also includes sleep problems, digestive problems, loss of appetite, mental disorders, and common diseases. Clinic (2019) concluded that stress influences one's mood. Some traits in the mood to determine a person who is in a stressful condition are anxiety, restlessness, loss of concentration or motivation, frustration, irritability or annoyance, and unhappiness or depression. In addition, he found that under stressful conditions, a person usually exhibits behaviors such as overeating, anger, drug or alcohol abuse, smoking, and social isolation. Mustafa et al. (2015) concluded that the bodily indicators of stress include exhaustion, high blood pressure, dizziness,

back pain, headache, abnormal heart rate, jaw pain, incapacity to pay attention and confusion, immunosuppressant, and continual pain.

Occupational stress has physiological, psychological, and behavioral associated factors affecting employees in the workplace. The findings of the current study indicate that sleeping disorders and restlessness, headaches, gastrointestinal disorders, and abnormalities in blood pressure were the factors most strongly associated with the physiological consequences of occupational stress. Similarly, other physiological effects were fatigue, accidents, and cardiovascular disorders. Respiratory disorders were found to be the least influential physiological factors resulting from occupational stress. In the case of psychological effects, job dissatisfaction, depression, and downheartedness, mental diseases, and ill-temperedness and impatience were found to be the most crucial effects resulting from occupational stress. With regard to behavioral effects, it was found that increased smoking, increased alcohol and recreational drugs misuse, and angriness were the leading possible perceived consequences associated with occupational stress. In the same way, disobedience, violence, and absenteeism, and resignations take place due to occupational stress among secondary school-heads (Wadesango et al., 2015). In addition, according to a report of the American Institute of Stress (2020), stress can aggravate depression, frustration, insomnia, annoyance, irritability, and nightmares. When people have trouble in concentrating and making decisions, stress can also make them forgetful.

Coping strategies are specific behavioral and psychological efforts employed by individuals to reduce, master, tolerate, or minimize stressful situations (Folkman & Lazarus, 1984). Numerous organizations need to reduce their workers' stress since they perceive that it is a striking drain on organizational efficiency. Worker support programs, stress management seminars, practice programs, smoking eradication programs, nourishment programs, and other wellbeing-related practices have helped a huge number of employees to deal with their stress and anxiety level (Mohajan, 2012). The findings of this study revealed that occupational stress can be reduced by various coping strategies. The secondary school-heads responded that stress can be controlled to some extent by recognizing employees' performance, introducing a culture that values the individual worker, and providing opportunities for professional development. Stress due to workload can be eliminated by recruiting sufficient staff. Most of the secondary school-heads were not satisfied with compensation; this can be controlled by rewarding them with handsome salary packages and a proper timescale. They should be provided with opportunities

for professional development. They should be involved in decision-making and policy formulation. Their duties and responsibilities should be clearly defined. Political interference should be banned. The workplace may be enriched with basic facilities to ensure a conducive, democratic, and vibrant environment. The findings are somewhat in line with the findings of Afnan et al. (2018) who found that stress can be easily reduced through coping strategies such as supervisor's positive attitude, supervisor's friendly attitude, assigning reasonable workload based on employees' capabilities, handsome compensation, co-operation on the part of supervisor and coworkers, motivation, appreciation, good working conditions, and provision of educational facilities. On the other hand, Kurki (2018) affirmed that occupational stress can be controlled through planned problem-solving, lifestyle, self-controlling, accepting obligations, emotion-focused coping, and time management. On the other hand, Sattler et al. (2013) pointed out that the use of medications amongst academics with the purpose of lowering is visible as a potentially useful adaption to problems in contemporary work settings.

Limitations

This study has some limitations. Firstly, there is a lack of multivariate analysis, using appropriate confounders for studying the associated factors. Secondly, the symptoms and effects reported are general and apparently self-reported. They were not measured by a clinician, so their reporting could be biased. Thirdly, it is a cross-sectional study, so it was not possible to explore the causes or consequences, but only associated factors related to causes and consequences. Fourthly, this study has only used a quantitative research method. So, in future studies, a mixed-method research approach, i.e., quantitative and qualitative methodologies, may be utilised to investigate the same problem. Finally, only three districts in Khyber Pakhtunkhwa were studied in this cross-sectional study. If the same study is conducted in all districts of Khyber Pakhtunkhwa, there is a chance that the results will be slightly different. Therefore, by conducting the study in all districts with large sample size, this limitation will be overcome.

Implications

There are some essential implications of this research findings. First, the research provides clues about specific realities and possible causes of workplace stress. The reasons for investigating the causes

are to assist the employees to know the causes of their stress and to provide evidence to organizations that why the employees are frequently stressed. Secondly, the findings provide some indicators, symptoms, and consequences of stress on employment with a view to enhancing employees' understanding of stress issues. Organizations should recognize employees who are over-stressed and assist them make necessary adjustments to lessen stress. In addition to determining the causes and consequences of stress, the findings also provide useful resolutions to support employees in balancing work and life, reducing excessive pressure, avoiding work pressure, and improving productivity and work quality. Therefore, the Ministry of Education must formulate appropriate strategies and policies to instantly deal with stressful situations, help employees to re-establish a prosperous life, and work efficiently to ensure institutional productivity and efficiency.

A wide-ranging strategy for reducing stress should be devised by the Ministry of Education so that secondary school-heads may be able to perform their duties successfully and efficiently. Workshops, seminars, and training for reducing stress should be organized for the heads of secondary schools. The secondary school-heads, as well as teachers, may be involved in framing effective educational policies. The Ministry of Education should take effective actions for ensuring conducive working conditions. Political inference should be banned in schools effectively to empower the secondary school-heads in utilizing their powers for improving the overall performance of schools. They should be provided with opportunities for professional and career development. They should be rewarded with handsome pay packages to raise their level of satisfaction. A sufficient workforce should be recruited to lessen the workload of secondary school-heads.

Conclusion

The findings revealed several factors that contribute to occupational stress which are necessary to be considered. Occupational stress can be identified through physical, emotional, and behavioural symptoms. In addition, it affects individuals in the workplace through a number of associated factors. These associated factors can be categorized as physiological, psychological, and behavioral associated factors. The findings also explored some important coping strategies to reduce occupational stress in order to improve organizational efficiency and productivity.

References

- Abbas, S., AL-Abrow, H., Abdullah, H. O., Alnoor, A., Khattak, Z. Z., & Khaw, K. W. (2021). Encountering Covid-19 and perceived stress and the role of a health climate among medical workers. *Current Psychology*, 24(1), 1-14. <https://doi.org/10.1007/s12144-021-01381-8>
- Afnan, K., Alamgir, K., Salahuddin, K., Sami, U. K., & Muhammad, K. K. (2018). Causes and Coping Strategies for Stress among Employees. *Journal of Physical Fitness, Medicine and Treatment in Sports*, 1(4), 555-567. doi: 10.19080/JPFMTS.2018.01.555567
- Ali, Y. T., Hassan, A., Ali, Y. T., & Bashir, R. (2013). Stress management in private banks in Pakistan. *Journal of Emerging in Economics and Management Sciences*, 4, 308-320.
- Al-khasawneh, A. L., & Futa, S. M. (2013). The relationship between job stress and nurses performance in the Jordanian hospitals: A case study in King Abdullah the Founder Hospital. *Asian Journal of Business Management*, 5(2), 267-275.
- American Institute of Stress. (2017). *Stress effects*. Retrieved from: <https://www.stress.org>
- Ashton, A. S. (2017). How human resources management best practice influence employee satisfaction and job retention in the Thai hotel industry. *Journal of Human Resources in Hospitality & Tourism*, 17(2), 175-199.
- Beehr, T. A., & Newman, J. E. (1978). Job stress, employee health, and organisational effectiveness- A fact analysis model and literature reviews. *Personal Psychology*, 31(5), 665-669.
- Bergomi, M., Modenese, A., Ferretti, E., Ferrari, A., Licitra, G., Vivoli, R., Gobba, F., & Aggazzotti, G. (2017). Work-related stress and role of personality in a sample of Italian bus drivers. *Work*, 57(3), 433-440. doi:10.3233/WOR172581
- Bergström, G., Lohela-Karlsson, M., Kwak, L., Bodin, L., Jensen, I., Torgén, M., et al. (2017). Preventing sickness absenteeism among employees with common mental disorders or stress-related symptoms at work: Design of a cluster randomized controlled trial of a problem-solving based intervention versus care-as-usual conducted at the occupational health services. *BMC Public Health*, 17(1), 436-446.
- Chauvet, G. (2015). Coupling methods for multistage sampling. *The Annals of Statistics*, 43(6), 2484-2506.
- Clinic, M. (2019). *Stress symptoms: Effects on your body and behavior*. Retrieved from: <https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/stress-symptoms/art-20050987>.
- Csillag, S., Szentkiralyi, A., & Szilas, R. (2008). *Organizational level interventions in the management of workplace stress in Hungarian Spiritual Foundation*. Budapest, Hungary: Semmelweis Publishing.

- Danjin, M., Adamu, S., Ribadu, S., & Adamu, D. (2016). Work related stress among hospital-based nurses in sub-urban settings in Gombe state, Nigeria. *International Journal of Pharmacology Research*, 6(1), 27-33.
- Desa, A., Yusoooff, F., Ibrahim, N., Kadir, N. B. A., & Rahman, R. M. A. (2014). A study of the relationship and influence of personality on job stress among academic administrators at a university. *Procedia-Social and Behavioral Sciences*, 11, 4355-4359.
- Downs, C. W., Driskill, G., & Wuthnow, D. (1990). A review of instrumentation on stress. *Management Communication Quarterly*, 4(1), 100-126.
- Edwards, J., Caplan, R., & Harrison, V. (1998). Person-environment fit theory: Conceptual foundations, empirical evidence, and directions for future research. In C. L. Cooper (Ed.), *Theories of organizational stress*. (pp. 28-67). New York: Oxford University Press.
- EMIS. (2016). *Annual statistical report of government schools*. Department of Elementary & Secondary Education Khyber Pakhtunkhwa, Peshawar, Pakistan.
- European Social Partners. (2004). *Report on social partner actions in member states to implement employment guidelines*. Retrieved from: <https://www.buinesseurope.eu/publications/european-social-partners-2004-report-social-partner-actions-member-states-implement>
- Folkman, S., & Lazarus, R. S. (1984). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, 21, 2019-2039.
- Jehangir, M., Kareem, N., Khan, A., Jan, M. T., & Soherwardi, S. (2011). Effects of job stress on job performance and job satisfaction. *Interdisciplinary Journal of Contemporary Research in Business*, 3(3), 453-165.
- Juma, J. K. A., Simatwa, E. M. W., & Ayodo, T. M. O. (2016). Factors influencing stress among public secondary school female principals in Kenya: A case study of Rachuonyo North and Homa Bay Sub-Counties. *Educational Research*, 7(2), 41-54.
- Kandola, A. (2018). *What are the health effects of chronic stress?* Retrieved from: <https://www.medicalnewstoday.com/articles/323324>.
- Kaur, S. (2011). Comparative study of occupational stress among teachers of private and government schools in relation to their age, gender, and teaching experience. *International Journal of Educational Planning & Administration*, 1(2), 51-60.
- Khalid, A., Pan, F., Li, P., Wang, W., & Ghaffari, A. S. (2020). The impact of occupational stress on job burnout among bank employees in Pakistan, with psychological capital as a mediator. *Frontiers in Public Health*, 7(410). doi: 10.3389/fpubh.2019.00410
- Kurki, R. (2018). *Stress management among nurses: A literature review of the causes and coping strategies*, (Unpublished Bachelor Thesis), Arcada University of Applied Science, Finland.

- Malta, J. (2004). Stress at work: A concept in stress human factors limited. *Business Psychology and Strategy Development*, 33(6), 125-133.
- Manoj, A. S. (2013). An analytical study on employee stress with special reference to information technology companies in Technopark: A Kerala experience. *International Journal of Advanced Research in Management and Social Sciences*, 2(11), 156-157.
- Margaret, K., Ngigi, S., & Mutisya, S. (2018). Sources of occupational stress and coping strategies among teachers in borstal institutions in Kenya. *Edelweiss: Psychiatry Open Access*, 2(1), 18-21.
- Massa, I. (2013). *Aid for trade facilitation in lower income countries: The role of institutional quality*. London: Overseas Development Institute.
- Mead, R. (2000). *What is stress? Roger Mead Associates, stress management, coaching and training for individuals and groups*. Retrieved on December 5, 2016 from: <http://www.jpps.com.pk/article/>.
- Mohajan, H. K. (2012). The occupational stress and risk of it among the employees. *International Journal of Mainstream Social Science*, 2(2), 17-34.
- Mosadeghrad, A. M. (2014). Occupational stress and its consequences: Implications for health policy and management. *Leadership in Health Services*, 27(3), 224-239.
- Mujtaba, B. G., Cavico, F. J., & Senathip, T. (2020). Strategies for personal, organizational and professional leadership success. *Scientific Journal of Research & Reviews*, 2(3), 1-10. doi:10.33552/SJRR.2020.02.000538.
- Mustafa, M., Illzam, E.M., Muniandy, R. K., Hashmi, M. I., Sharifa, A.M., & Nang, M. K. (2015). Causes and prevention of occupational stress. *IOSR Journal of Dental and Medical Sciences*, 14(11), 98-104.
- National Institute for Occupational Safety and Health. (2008) *Exposure to stress: Occupational hazards in hospitals*. Center for Disease Control and Prevention, U.S. Department of Health and Human Services. Retrieved from: <https://www.cdc.gov/niosh/docs/2008-136/>
- Ornek, O. K., & Sevim, E. (2018). *Work-related stress and coping profiles among workers in outer garment sector: A cross-sectional study*. Retrieved from: www.preprints.org
- Prasad, K. D. V., & Vaidya, R. (2017). Causes of stress among PhD research scholars with reference to Rashtrasant Tukadoji Maharaj Nagpur University: An empirical analysis. *International Review of Management and Research*, 6(2), 472-480.
- Rasool, S. F., Wang, M., Zhang, Y., & Samma, M. (2020). Sustainable work performance: The role of workplace violence and occupational stress. *International Journal of Environmental Research and Public Health*, 17(912), 1-12. doi:10.3390/ijerph17030912
- Roberts, R., Grubb, P. L., & Grosch, J. W. (2012). *Alleviating job stress in nurses*. NIOSH: Workplace Safety and Health. Retrieved from: <http://www.medscape.com/viewarticle/765974>

- Sattler, S., Sauer, C., Mehlkop, G., & Graeff, P. (2013). The rationale for consuming cognitive enhancement drugs in university students and teachers. *PLoS One*, 8(7), 1-10. doi:10.1371/journal.pone.0068821
- Schultz, J., & Schultz, M. (2002). *The use of microencapsulated cholesteric material as a biofeedback mechanism to measure the relationship between stress levels and performance*. Paper presented at Hawaii International Conference on Business, Honolulu, Hawaii.
- Shrivastava, A. K., & Singh, A. P. (1981). *Manual of the Occupational Stress Index*. Department of Psychology, Banaras Hindu University, Varanasi, India.
- Spector, P. E. (1998). A control model of the job stress process. In C. L. Cooper (Ed.), *Theories of organizational stress* (pp. 153-169). London: Oxford University Press.
- Suleman, Q., Hussain, I., & Shehzad, S. (2018a). Relation of occupational stress and job satisfaction: A study of secondary school-heads in Khyber Pakhtunkhwa, Pakistan. *Global Social Sciences Review*, 3(2), 241-274. doi:10.31703/gssr.2018(III-II).15
- Suleman, Q., Hussain, I., Shehzad, S., Syed, M. A., & Raja, S. A. (2018b). Relationship between perceived occupational stress and psychological well-being among secondary school-heads in Khyber Pakhtunkhwa, Pakistan. *PLoS ONE*, 13(12), e0208143.
- Suraksha, Chikkara, K. S. (2017). An empirical study of the factors of occupational stress in Indian Banking Industry. *Pacific Business Review International*, 9(8), 31-40.
- Tamunomiebi, M. D., & Mezeh, A. A. (2021). Workplace stressors and employee performance: A conceptual review. *Asian Journal of Economics, Business and Accounting*, 21(4), 57-66.
- Wadesango, N., Gudyanga, E., & Mberewere, M. (2015). Occupational stress among school head teachers: A case for Hwedza District secondary schools' head teachers. *Journal of Social Sciences*, 45(1), 31-35.
- World Health Organization. (2017). *Occupational health*. Retrieved from: http://www.who.int/occupational_health/topics/stressatwp/en/
- Yahaya, A., Yahaya, N., Arshad, K., Ismail, J., & Jaalam, S. (2009). Occupational stress and its effects towards the organization management. *Journal of Social Sciences*, 5(2), 390-397.

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