

Sleep Disorders and its Relationship to Work Stress among Physical Education Teachers in Asyut Governorate

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Introduction and research problem:

Sleep disorders are one of the most common psychological disorders that have begun to spread in the current era, like other psychological disorders that have increased in prevalence, and their spread is linked to the complexity of civilization, the abundance of work and the burdens of life and the consequent stress and multiple psychological pressures. These disorders vary in the extent of their negative impact on the teacher. That it is more negative for students in particular (8: 272)

Abdel-Fattah Abul (2001 AD) explains that sleep has a biological, structural function and represents a necessity of life, and it is a phenomenon known as the unconscious state that occurs as a result of the activation of the neural signals in the brain stem area. The state of sleep inhibits the movement of these pathways, which leads to the person falling asleep, thus achieving balance in the functions of all the organs of the body and the continuation of its activity (1: 261, 262)

Muhammad A: (2014) indicates that pressures and emotions have become one of the most dangerous and complex phenomena that threaten the life of contemporary man in his interaction and dealing with the surrounding environment and the

negative psychological effects that it entails. His desire and the satisfaction of his need makes a person react, so he meditates on what is asked of him, which leads to him falling under pressure and the control of emotions over every activity he does. (9: 226)

Through the previous presentation, the "researcher" noticed, through supervising the practical education program in schools and the direct interaction with the teacher. The physical education teachers in Asyut governorate feel many work pressures, and these pressures work to not achieve the goals set within the educational institution. The physical education teacher is often exposed to many cases of turmoil, anxiety, frustration and pressure, which negatively affects their condition and in turn is reflected on their performance levels at work. Most of these pressures and tensions come from sources related to work and its nature.

Also, through a survey form for some teachers, as well as the application of the Sleep Disorders Scale to a random sample of physical education teachers in schools, it was found that most members of this sample suffer from sleep disorders, and through the researcher's observation of physical education teachers, and by

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virtue of the fact that they are studying different stages of study that require a sufficient amount of sleep is due to the teacher's need for (attention, memory, and good health for the purpose of achieving appropriate and quality education), especially that these school stages are almost one of the most difficult ages that students go through. Determine the type and future of the student.

The researcher obtained a specialist statement from the Directorate of Education and Learning in Asyut stating that the number of physical education teachers in the Directorate is more than (700) physical education teachers according to the general statistics, and he sought it 2020/2021. Preparing the rising generation on which the progress of society will be based in the following years. Therefore, we must take care of this category and take care of them psychologically, physically and healthily.

By informing the researcher of previous research and studies that were carried out in the field of sports psychology, and to the knowledge of the researcher, he did not find a study that dealt with sleep disorders and its relationship to work pressures among physical education teachers in Asyut Governorate, which prompted the researcher to conduct this research.

Objectives of the study:

The current study aims to:

Identifying the level of sleep disorders and the level of work stress and the relationship between them

among physical education teachers in Asyut Governorate.

Study assignments:

In light of the objectives of the study, the researcher assumes the following:

- 1- There are statistically significant differences between physical education teachers in the level of sleep disorders
- 2- There are statistically significant differences between male and female physical education teachers in the level of work stress
- 3- There is a statistically significant relationship between sleep disorders and the level of work stress among physical education teachers.

Terms used in the study:

Work stress:

They are unusual circumstances, events or situations that workers are exposed to within the work environment because of them that negatively affect their psychological comfort and their feelings, feelings and morale, which in turn reflect on their mental, psychological or physical health, or both. (6:10)

Sleep Disorders:

It is a state of irregular sleep in terms of its duration, time, type, or the behavior or activity that occurs during it that contradicts the state of sleep, which indicates that sleep is not achieved as required. (11:45)

Research plan and procedure:

Research Methodology:

The researcher used the descriptive approach due to its relevance and the nature of the research

Research community:

The research community included physical education teachers in Asyut Governorate and includes 11 eleven educational departments, with a total of (700) male and female teachers according to the statistics for the academic year 2020/2021.

The research sample:

The sample was chosen randomly, so that each educational administration represented (20) teachers of physical education, where the research sample included (220) male and female teachers from eleven educational administrations in Asyut Governorate. For the academic year 2020/2021 AD.

Table (1)
Sample size and distribution of the basic and exploratory research sample
(n = 220)

male and female sample	male teacher	female teacher	Total
basic study	124	96	220
survey study	44	36	80
total	168	132	300

Data collection tools:

In light of the objectives and nature of the study, the researcher used the following to collect data.

First: The Sleep Disorder Scale (prepared by Ali Mahmoud Kazem)

The scale consists of (27) phrases on the scale of three (never, sometimes, always), where the response (never) takes the degree (1), and (sometimes) takes the degree (2) and (always) takes the degree (3), Therefore, the greatest degree of the scale is $27 \times 3 = 81$ degrees, and the smallest degree is $27 \times 1 = 27$ degrees, and it has been emphasized the need to choose one of the three alternatives for each of the scale's expressions, and that the response is expressive of the feelings, thoughts and behavior of the respondent (the teacher)) Indeed, and his answers are for scientific research purposes only, and it is sufficient to mention the gender (male / female)

Calculate the scientific coefficients of the scale:

The researcher applied the scale to a standardization sample consisting of (80) physical education teachers from the research community without the basic sample of the research, with the aim of ensuring clarity and formulation of phrases for what they were developed for, and their relevance to the research sample, and calculating the scientific coefficients of the scale (honesty - reliability). This procedure yielded the following results:

A- Internal consistency:

To calculate the internal consistency, the researcher applied it to a sample of (80) physical education teachers from the research community from outside the basic sample of the research that has the same specifications as the basic sample. Scale on the survey sample.

Table (2)
Correlation coefficients between the score of each of the scale statements and the total score of the scale (n = 80)

serial	Correlation coefficient	serial	Correlation coefficient	serial	Correlation coefficient	serial	Correlation coefficient
1	0.77	9	0.76	17	0.75	25	0.71
2	0.87	10	0.68	18	0.87	26	0.72
3	0.52	11	0.88	19	0.70	27	0.73
4	0.58	12	0.86	20	0.78		
5	0.81	13	0.80	21	0.84		
6	0.82	14	0.90	22	0.80		
7	0.71	15	0.84	23	0.66		
8	0.70	16	0.87	24	0.75		

(t) tabular value at significance level (0.05) = 0.311

It is clear from Table (2) the values of the correlation coefficient ranged between (0.52 - 0.90%), which are statistically significant correlation coefficients, which indicates the sincerity of the internal consistency.

1- Stability:

Half-segmentation method:

The researcher used the split-half method and then calculated the correlation coefficient between the scores of the survey sample in the two halves of the scale, and the value of the reliability coefficient of the scale was (t = 0.76), which is a function at the level (0.05)

Second, the work pressure scale:

Steps to build a work stress scale:

1-Determine the goal of the scale:

The main goal is to reach a tool with a high degree of validity and reliability that uses the stress levels of physical education teachers.

1- Determine the axes related to the objective of the scale:

To determine the scale axes, the researcher used the following sources:

A- Specialized references: which are represented in the total of specialized literature in the field of psychology in general and sports psychology in particular.

B- Studies, research and specialists: which dealt with pressures and their various sources. The researcher analyzed the content of these studies. Through these sources, the researcher reached these axes.

Table (3) (n=6)

serial	axis	frequency	percentage
1	Occupation-related work stress	6	%100
2	Work stress associated with running a school	5	%83.33
3	Work stress related to the relationship with colleagues	6	%100
4	Work stress related to family aspects	6	%100
5	Work stress related to physical aspects	5	%83.33

The percentage of the opinions of the experts ranged between (83.33-100%), and thus the experts agreed on those proposed themes and their suitability for conducting the research, and this is what is shown in Table (3)

2- Formulating scale statements:

In the light of the theoretical understanding and analysis of each axis of the scale, the researcher used the phrases he obtained from studies, research and lists of psychological features.

Table (4)

The relative importance of the opinions of the experts in the statements of the axes of the scale

serial	axis	excluded phrases	no. of phrases	Relative importance
1	Occupation-related work stress	2	7	%20
2	Work stress associated with running a school	2	7	%20
3	Work stress related to the relationship with colleagues	2	7	%20
4	Work stress related to family aspects	2	8	%22.85
5	Work stress related to physical aspects	1	6	%17.15
	total	9	35	%100

And - thus, the number of phrases of a work stress scale for physical education teachers became

(35) phrases under the different scale phrases

Table (5)

Determining the response time to the work stress scale for physical education teachers

The teacher is the fastest to answer the scale	The teacher is slowest to answer the scale	Arithmetic mean of the two times	The appropriate time to answer the scale
20m	30m	25m	25m

Thus, the appropriate time to answer the scale is 25 minutes

Scientific parameters of the scale:

1- The authenticity of the content

To ensure the validity of the content, the researcher presented the scale to a group of experts in the field of sports psychology, consisting of (6) experts,

appendix (1), in order to express an opinion on the appropriateness of the scale in what was set for it, both in terms of the axes and phrases for each axis and the suitability of those phrases to the axis that The expressions that got (75%) or more from a group of

experts' opinions were tested. The percentage of expert opinions (n=6) on the scale's statements ranged between (83.33-100%), and thus (9) statements that did not obtain the specified percentage were excluded, and thus the number of the scale's statements in its final form reached (35) statements persistence:

A- Calculating stability by test-retest method

To calculate the stability of the scale, the researcher used the test-retest method on a sample of (80) teachers, then the application was re-applied with an interval of (15) fifteen days⁹

Table (6)
Correlation coefficient between the first and second application of the scale (n=80)

Application axes	first app		second app		Correlation coefficient (t)	self-honesty
	m	e	m	e		
Occupation-related work stress	7.42	2.91	7.9	2.76	0.72	0.84
Work stress associated with running a school	5.92	1.06	5.23	1.56	0.69	0.83
Work stress related to the relationship with colleagues	9.11	3.11	8.67	2.96	0.58	0.76
Work stress related to family aspects	8.67	2.96	4.12	1.22	0.67	0.81
Work stress related to physical aspects	4.90	1.32	18.0	0.85	0.63	0.79
the scale as a whole	60.77	9.83	57.4	9.12	0.81	0.93

(t) tabular value at significance level (0.05) = 0.444%

It is clear from Table (6) the following: There is a positive, statistically significant relationship between the first and second application of the various axes of the scale and the scale as a whole, if the calculated correlation coefficient ranges between (0.54 - 0.81) is higher than its tabular value at the level (0.05), which confirms its stability.

Search steps

A- Survey study:

The researcher conducted the exploratory study, which included a

group of physical education teachers consisting of (80) teachers from the research community and from outside the basic sample in the period from 1/6/2021 to 15/6/2021, in order to identify the appropriateness of the scale for what it was developed for. .

B- Basic Study:

After defining the sample and selecting the data collection tools and ensuring their validity and reliability, the researcher applied them to all members of the basic sample under study, consisting of (220) teachers, and the

application period was from 1/7/2021AD until 15/8/2021AD.

Statistical processors:

The following statistical treatments were used

Arithmetic mean, standard deviation, skewness coefficient

t-tests - correlation coefficient - percentage

The researcher may clarify the level of significance (0.05) as he used the spss

program to calculate some statistical transactions.

Discussion and interpretation of the results:

The first hypothesis:

To verify the validity of the first hypothesis, which states: "There are statistically significant differences between physical education teachers in the level of sleep disorders".

Table (7)

The significance of the differences between the averages of physical education teachers in the Sleep Disorders Scale (n = 220)

variable	measure unit	male teacher		female teacher		t	Indication level
		m	e	m	e		
sleep disturbance scale	degree	62.78	20.39	79.80	22.72	3.26	0.05

Tabular (T) value at the significance level of 0.05 = 1.65

It is clear from the previous table that the calculated t-value = 3.26, which is a function at the level (0.05), which is higher than its tabular value at the same significance level. Therefore, there are statistically significant differences between teachers and female teachers in the sleep disorders

scale and in favor of the female teachers.

The second hypothesis:

To verify the validity of the second hypothesis, which states: "There are statistically significant differences between male and female physical education teachers in the level of work stress".

Table (8)

The significance of the differences between the averages of physical education teachers in the work stress scale (n = 220)

variable	measure unit	male teacher		female teacher		t	Indication level
		m	E	m	e		
Occupation-related work stress	degree	14.70	2.38	22.41	18.45	2,27	0.05
Work stress associated with running a school	degree	19.73	0.980	14.10	2.46	11,43	0.05

Follow Table (8)
The significance of the differences between the averages of physical education teachers in the work stress scale (n = 220)

variable	measure unit	male teacher		female teacher		t	Indication level
		m	e	m	e		
Work stress related to the relationship with colleagues	degree	19.40	1.22	12.17	1.51	20,15	0.05
Work stress related to family aspects	degree	14.13	2.43	19.41	1.25	10,45	0.05
Work stress related to physical aspects	degree	19.57	1.22	14.86	2.28	9,59	0.05
work pressure gauge	degree	62.78	20.39	79.80	22.72	3.26	0.05

Tabular (T) value at the significance level of $0.05 = 1.65$

It is clear from the previous table that there are statistically significant differences between male and female teachers in the work stresses related to the profession and in favor of female teachers. There are also statistically significant differences between male and female teachers in work stress related to school administration and in favor of teachers. There are also statistically significant differences between male and female teachers in work stress related to the relationship with colleagues and in favor of teachers. There are also statistically significant differences between male and female teachers in work stress related to family aspects

and in favor of female teachers. There are also statistically significant differences between male and female teachers in work stress related to the material aspects and in favor of teachers. There are also statistically significant differences between male and female teachers in the work stress scale and in favor of teachers.

The third hypothesis:

Which states, "there is a statistically significant relationship between the scores, and there is a statistically significant relationship between sleep disorders and the level of work stress among physical education teachers".

Table No. (9)
Correlation coefficient between the two measures of sleep disorders and work stress scale in the study sample (n = 220)

	work pressure scale	Indication level
sleep disturbance scale	689,0	05,0

It is clear from the previous table that the value of ($t = 689,0$), which is a function at the level of 05.0, which indicates the existence of a statistically significant relationship between sleep disorders and the work stress scale for physical education teachers, the study sample.

Interpretation and discussion of the results:

Discussing the results of the first hypothesis:

It is clear from Table (7) that there were statistically significant differences between male and female teachers in the Sleep Disorders Scale and in favor of the female teachers.

The researcher believes that there is a higher rate of sleep disorders among physical education teachers than male teachers. Rather, it is due to the fact that the cycle of sleep and wakefulness is related to the psychological, emotional and mental aspects more than it is to the organic and physical aspect, where the regulation of sleep is a result of the balance and interaction between the various neurotransmitter systems, where sleep is linked to mental processes of perception, memory, attention and reaction to logical processes and others.

The researcher also attributes the high rate of sleep disorders among physical education teachers to the

teachers' falling under the pressures and requirements of the home and the family, as most of them are mothers with children in different academic and school stages. As well as the nature of the physical education teacher's work, which requires participation in competitions and championships, and performing practical tests for team and individual games that students study in schools, and this is consistent with the study of "Taha A" (2011) (10), the study of "Kazem A" (2005) (8.), the study of "Abu Ela Abdel-Fattah" (2001 AD) (1.)

Discussing the results of the second hypothesis:

It is clear from the tables (8) that there are statistically significant differences between physical education teachers in the level of work stress and in favor of teachers: the researcher attributed this to the fact that there are many stressful stimuli that the physical education teacher encounters, due to the diversity of demands that he must fulfill, such as sports achievement The students' acquisition of motor skills, planning abilities, psychological and physical readiness for the sports competition that the physical education

teacher should provide to the students, as well as emotional control and awareness of the responsibilities placed on him and good interaction with students and colleagues, and all that is associated with this of fear, failure, tension, excitement and other factors that contribute In raising the level of professional pressures for the physical education teacher.

As work pressures generate psychological and physical imbalances, and the outcome of these cases appears in many manifestations of imbalance in work performance, which prompts modern educational institutions to face the problems of work pressures. These pressures are usually generated by factors present either at work or the surrounding environment

.This is in agreement with the study of " Al-Shaalan L " (2002) (2), the study of " Al-Hindawi Y " (2002 AD) (3), the study of "Liesbeth Adriaenssens" (2006 AD) (12), "Chris Trendal, C., etal. ," (1990 AD) (13)

Discussing the results of the third hypothesis:

It is clear from Table (9) that there is a positive and direct statistical correlation between sleep disorders and the work stress scale among physical education teachers, the study sample. Sleep disorders are one of the most common mental disorders that have begun to spread in the current era, like other mental disorders that have

increased in prevalence, and their spread is linked to the complexity of civilization, the abundance of work and the burdens of life and the consequent stress and multiple psychological pressures. These disorders vary in the extent of their negative impact on physical education teachers, and since good sleep helps the physical education teacher to maintain his energy and activity so that he can meet the demands of the profession that requires effort and physical and mental energy. And that sleep is of great importance in our daily life, as it is necessary for many psychological processes, as it comes as a necessary need as a result of practicing psychological and physiological activities during the day, which is useful in rebuilding mental processes to prepare them for work.

These results agree with the study of "Taha A" (2011) (10), the study of "Kazem A" (2005 AD) (8), the study of "Najwa Hosni" (2013 AD) (194), and "Andy Collier" (2003 AD) (5), the study of "Alexander Borelli" (1997AD) (4)

Conclusions:

- 1- There are statistically significant differences in sleep disorders between physical education teachers in Assiut governorate and in favor of physical education teachers.
- 2- There are statistically significant differences in the level of work stress

between male and female physical education teachers in Assiut Governorate and in favor of physical education teachers.

3- There is a statistically significant relationship between sleep disorders and the level of work stress among physical education teachers

Recommendations:

1- The application of the sleep disorders scale and the work stress scale for physical education teachers in Assiut governorate periodically and continuously during the school year, which allows to identify the degree and level of sleep disturbances and stress in the educational institution.

2- Develop codified programs that increase the teacher's self-confidence level and reduce the degree of professional pressure on the teacher's performance.

3- The necessity of having courses to qualify the teacher from a psychological point of view, to maintain a great degree of mental health and to develop the psychological skills of physical education teachers.

The reviewer:

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