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Association of Work Stress & Total Income with Sick Leave during COVID-19 Pandemic applied on Ahmed Maher and El-Gomhoria Teaching Hospital/

Hany Mohamed Abd-Allah Embaby, Tamer Abdu Mohammed Megahed
Pediatric Surgery Department Ahmed Maher Teaching Hospital, Egypt
Corresponding Author: Tamer Abdu Mohammed Megahed
Phone numbers: 01000 862 100 **E-mail address:** tamer.a.m390@gmail.com, **ORCID ID:** 0000-0001-7352-4196

ABSTRACT

Background: Although COVID-19 pandemic drew an intense global attention to sick leave incidence, policies, and effect on different public and national levels, still there hasn't been enough scientific research well done to address and manage this subject.

Objective: To Study the correlation between workload and sick absenteeism of the employees and the impact on total income.

Patients and Methods: A cross-sectional research involved 50 staff members by evaluating the correlation between workload and sick absenteeism were assessed by formulating Key Performance Indicator to asses customers (internal) satisfaction, work obstacles and distribution of employee leave in contrast to sick leave distribution.

Results: As hospitals look to increase the benefit from the human element as one of the most important elements of capital, providing an ideal work environment in order to reach the optimal benefit of human element. Careful analysis of specific staff needs will build a strong foundation toward developmental success.

Conclusion: An elevating level on sick leave of stress related reasons during COVID-19 pandemic needs a valid tool for early identification of individuals at risk of leaving work because of such factors. Findings of this study refers that the workplace stress scale questionnaire is a reliable and valid questionnaire.

Keywords: Sick leave, Workplace stress, Absence.

INTRODUCTION

Sickness absence is an indicator to staff morbidity and wellbeing, it also have an economical burden to companies and society [(1)].

Association of income of the employee and the frequency of the sick leave is often controversial [(2)].

Job stress can be a reason for increasing health care costs in many countries, it also seems to be related to less productivity and performance, and higher incidents of absenteeism and turnover [(3)].

Many previous studies have concluded that job stress is linked to poor health and absenteeism leave [(4)]. The workplace stress scale (WSS) is the most common and well-studied models evaluating job stress [(5)].

This study aimed to correlate between workload and sick absenteeism of the employees and the impact on total income.

PATIENTS AND METHODS

A. Selection of participants:

This cross-sectional study enrolled 50 staff members to evaluate the correlation between workload and sick absenteeism that was assessed by formulating Key Performance Indicator to assess customers (internal) satisfaction, work obstacles and distribution of employee leave in contrast to sick leave distribution.

B. Methods:

This cross-sectional study evaluated the association of workload, income and sickness absenteeism. The workload was assessed using a translated version of the workplace stress scale questionnaire (WSQ).

Self-reported questions about total sickness absenteeism days during the last year and total monthly income was added to the questionnaire. Also, after obtaining participants' consents, review the center's personnel records was done to confirm the days of sick leave and net salary and compare them to the participant's answers.

- **Inclusion Criteria:**
  - All full-time working staff that has been working in the specified study centers for at least 1 year and still.
  - Sickness leave (not due to covid-19 confirmed illness) only was considered.

- **Exclusion Criteria:**
  - Employees unwilling to participate.
  - All the employees who were on sick leave and/or maternity leave for more than 3 months in the last year.
  - Sickness leaves due to COVID-19 illness confirmed by PCR test or chest CT scan.
  - Incomplete questionnaire answers may result in questionnaire exclusion.
  - Regular vacation and holidays leaves will be excluded.
  - Ongoing sick leave (full- or part-time), leave of absence, pregnancy.
  - Employees who have serious mental disease (e.g. psychosis), post-traumatic stress illness, or any other severe co-morbidity that is severe enough to remarkably impact their ability to work and/or quality of life.

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Ethical consent:

The study was authorized by General Organization of Teaching Hospitals and Institutes Ethical Institutional Review Board. All study participants provided written informed permissions after being informed of our research's goals. The Declaration of Helsinki for human beings, which is the international medical association's code for ethics, was followed during the conduct of this study.

Statistical analysis

Data analysis was performed using SPSS version 20.0. Mean ± standard deviation represented quantitative variables, whereas number and proportions represented qualitative variables. Tests used, Chi-square test (X2): to compare between 2 groups for qualitative data

RESULTS

Stuff were categorized according to sex, age, educational level, marital status and occupational class as represented in Table (1). Female to male ratio being (40:10), with patients age between 26 : 58 (38.04±7.74) years old. University graduates were most of the sample (84%) while High school graduates were (12%) and Elementary school graduates were (4%). Most of the sample were Married (82%) while Single people were (16%) and Divorced people were (2%). Most of the sample were Skilled staff (72%) while High-level staff were (16%) and Medium/Low level staff were (12%).

Table (1): Distribution of stuff regarding their demographics

Demographic	Distribution	No. of patients	Percentage
Gender	Male	10	20%
	Female	40	80%
Age	20 th	30	60 %
	30 th	12	24%
	40 th	6	12%
	50 th	2	4%
Educational Level	University	42	84%
	High school	6	12%
	Elementary school	2	4%
Marital Status	Single	8	16%
	Married	40	82%
	Divorced	2	2%
Occupational Class	Skilled	36	72%
	High-level	8	16%
	Medium/low level	6	12%

There was no considerable variation (p-value = 0.658) between proportion with sick leave ≥ 15 days and that < 15 days as regards gender as follows: In relation to sick leave ≥ 15 days, there were 3 males (30%) and 15 females (37.5%). Regarding sick leave < 15 days, there were 7 males (70%) and 25 females (62.5%). Besides, there was no potential variance (p-value = 0.847) between proportion with sick leave ≥ 15 days and proportion with sick leave < 15 days as regard age as follows: In relation to sick leave ≥ 15 days, there were 10 patients (34%) of 20th, 4 patients (33.3%) of 30th, 3 patients (50%) of 40th and 1 patient (50%) of 50th. In proportion with sick leave < 15 days, there were 20 patients (66%) of 20th, 8 patients (66.7%) of 30th, 3 patients (50%) of 40th and 1 patient (50%) of 50th. Also, there was no considerable distinction (p-value = 0.909) between proportion with sick leave ≥ 15 days and that < 15 days as regards educational level as follows:

Regarding sick leave ≥ 15 days, there were 15 patients (35.7%) of university education, 2 patients (33.3%) of high school education and 1 patient (50%) of elementary school education. In proportion with sick leave < 15 days, there were 27 patients (62.5%) of university education, 4 patients (66.7%) of high school education and 1 patient (50%) of elementary school education.

There was no considerable variance (p-value = 0.938) between proportion with sick leave ≥ 15 days and that < 15 days as regards marital status as follows: Regarding sick leave ≥ 15 days, there were 3 patients (37.5%) single, 15 patients (37.5%) married, and 1 patient (50%) divorced. Regarding sick leave < 15 days, there were 5 patients (62.5%) single, 25 patients (62.5%) married, and 1 patient (50%) divorced.

There was no remarkable difference (p-value = 0.752) between proportion with sick leave ≥ 15 days and that < 15 days as regards occupational class as follows: Regarding sick leave ≥ 15 days, there were 14 patients (39%) skilled class, 2 patients (25%) high class and 2 patient (33.3%) medium/low class. In proportion with sick leave ≥ 15 days, there were 22 patients (61%) skilled class, 6 patients (75%) high class and 4 patient (66.7%) medium/low class (Table 2).

Table (2): Correlation between registered sick leave and sociodemographics

Demographic	Distribution	No. of patients		Proportion with sick leave ≥ 15 days		Proportion with sick leave < 15 days		X^2	p-value
		No.	%	No.	%	No.	%		
total		50		18	36%	32	64%		
Gender	Male Female	10 40	20% 80%	3 15	30% 37.5%	7 25	70% 62.5%	0.19	0.658 NS
Age	20 th 30 th 40 th 50 th	30 12 6 2	60 % 24% 12% 4%	10 4 3 1	34% 33.3% 50% 50%	20 8 3 1	66% 66.7% 50% 50%	0.81	0.847 NS
Educational Level	University High school Elementary school	42 6 2	84% 12% 4%	15 2 1	35.7% 33.3% 50%	27 4 1	64.3% 66.7% 50%	0.19	0.909 NS
Marital Status	Single Married Divorced	8 40 2	16% 82% 2%	3 15 1	37.5% 37.5% 50%	5 25 1	62.5% 62.5% 50%	0.12	0.938 NS
Occupational Class	Skilled High-level Medium/low level	36 8 6	72% 16% 12%	14 2 2	39% 25% 33.3%	22 6 4	61% 75% 66.7%	0.56	0.752 NS

Table (3) showed that there was no significant variance (p-value = 0.654) between men and women as regards influence at work as follows: In men, there were 4 patients (40%) of low influence at work and 6 patient (60%) of high influence at work. In women, there were 13 patients (32.5%) of low influence at work and 27 patient (76.5%) of high influence at work.

There was no remarkable variance (p-value = 0.864) between men and women as regards stress because of conflicts and indistinct organization as follows: In men, there were 8 patients (80%) of low stress and 2 patient (20%) of high stress. In women, there were 31 patients (77.5%) of low stress and 9 patient (22.5%) of high stress. There was no considerable variation (p-value = 0.886) between men and women as regards stress due to commitment and individual demands as follows: In men, there were 6 patients (60%) of low stress and 4 patient (40%) of high stress.

In women, there were 23 patients (57.5%) of low stress and 17 patient (24.5%) of high stress. There was no remarkable difference (p-value = 0.768) between men and women as regards work interference with leisure time as follows: In men, there were 6 patients (60%) of low and 4 patient (40%) of high work interference with leisure time. In women, there were 26 patients (65%) of low and 14 patient (35%) of high work interference with leisure time.

Table (3): Measured stress and work-related stressors

		Total		Men		Women		P value
		NO	%	NO	%	NO	%	
Influence at work	**Low**	17	34%	4	40%	13	32.5%	0.654 NS
	high	33	66%	6	60%	27	67.5%	
Stress due to indistinct organization and conflicts	**Low**	39	78%	8	80%	31	77.5%	0.864 NS
	high	11	22%	2	20%	9	22.5%	
Stress due to individual demands and commitment	**Low**	29	58%	6	60%	23	57.5%	0.886 NS
	high	21	42%	4	40%	17	42.5%	
Work interference with leisure time	**Low**	32	64%	6	60%	26	65%	0.768 NS
	high	18	36%	4	40%	14	35%	

Table (4) showed:

- No statistically significant difference **(p-value = 0.057)** between proportion with sick leave ≥ 15 days and proportion with sick leave < 15 days as regard **Influence at work** as follows:
  - ✓ In proportion with sick leave ≥ 15 days, **Influence at work** was low in 9 participants (18%) and high in 7 participants (14%).
  - ✓ In proportion with sick leave < 15 days, **Influence at work** was low in 9 participants (18%) and high in 23 participants (46%).
- Statistically significant difference **(p-value = 0.001)** between proportion with sick leave ≥ 15 days and proportion with sick leave < 15 days as regard **Stress due to organization and conflicts** as follows:
  - ✓ In proportion with sick leave ≥ 15 days, **Stress due to organization and conflicts** was low in 12 participants (24%) and high in 6 participants (12%).
  - ✓ In proportion with sick leave < 15 days, **Work/leisure time interference** was low in 7 participants (14%) and high in 25 participants (50%).
- No statistically significant difference **(p-value = 0.705)** between proportion with sick leave ≥ 15 days and proportion with sick leave < 15 days as regard **Stress due to demands and commitment** as follows:
  - ✓ In proportion with sick leave ≥ 15 days, **Stress due to demands and commitment** was low in 8 participants (16%) and high in 10 participants (20%).
  - ✓ In proportion with sick leave < 15 days, **Stress due to demands and commitment** was low in 16 participants (32%) and high in 16 participants (32%).
- Statistically significant difference **(p-value = 0.004)** between proportion with sick leave ≥ 15 days and proportion with sick leave < 15 days as regard **Work/leisure time interference** as follows:
  - ✓ In proportion with sick leave ≥ 15 days, **Work/leisure time interference** was low in 8 participants (16%) and high in 10 participants (20%).
  - ✓ In proportion with sick leave < 15 days, **Work/leisure time interference** was low in 3 participants (6%) and high in 29 participants (58%).
- No statistically significant difference **(p-value = 0.114)** between proportion with sick leave ≥ 15 days and proportion with sick leave < 15 days as regard **Effect from any dimension** as follows:
  - ✓ In proportion with sick leave ≥ 15 days, **Effect from any dimension** was 0 dim in 3 participants (6%), 1 – 2 dim in 7 participants (14%) and 3 – 4 dim in 6 participants (12%).
  - ✓ In proportion with sick leave < 15 days, **Effect from any dimension** was 0 dim in 14 participants (28%), 1 – 2 dim in 6 participants (12%) and 3 – 4 dim in 12 participants (24%).
- No statistically significant difference **(p-value = 0.323)** between proportion with sick leave ≥ 15 days and proportion with sick leave < 15 days as regard **Combination of perceived stress** as follows:
  - ✓ In proportion with sick leave ≥ 15 days, Combination of perceived stress was low on both in 6 participants (12%), high on one in 7 participants (14%) and high on both in 5 participants (10%).
  - ✓ In proportion with sick leave < 15 days, Combination of perceived stress was low on both in 10 participants (20%), high on one in 7 participants (14%) and high on both in 15 participants (30%).

Table (4): Correlation between stress of work and registered sick leave *less than 15 days* and *more than 15 days*

		Sick leave ≥ 15 days		Sick leave < 15 days		X^2	p-value
		No.	%	No.	%		
Influence at work	**Low**	9	18%	9	18%	3.6	0.057 NS
	high	7	14%	23	46%		
Stress due to organization and conflicts	**Low**	12	24%	7	14%	**9.8**	**0.001 S**
	high	6	12%	25	50%		
Stress due to demands and commitment	**Low**	8	16%	16	32%	0.14	0.705 NS
	high	10	20%	16	32%		
Work/leisure time interference	**Low**	8	16%	3	6%	**8.2**	**0.004 S**
	high	10	20%	29	58%		
Effect from any dimension	**0 dim**	3	6%	14	28%	4.3	0.114 NS
	1-2 dim	7	14%	6	12%		
	3-4 dim	6	12%	12	24%		
Combination of perceived stress	**Low on both**	6	12%	10	20%	2.25	0.323 NS
	High on one	7	14%	7	14%		
	High on both	5	10%	15	30%		

DISCUSSION

Sickness absence, although implies a considerable economical burden to companies and society, is considered a composite indicator to both morbidity and wellbeing. Correlates of employee absence, therefore, have been studied intensively during the past three decades. Sickness absence was even used as an integrated factor of physical and psychosocial functioning in researches of employment populations [(1)].

Some researchers suggest that job stress can be a reason for increasing health care costs in many countries as US. Furthermore, job stress seems to be related to less productivity and performance, and higher incidents of absenteeism and turnover. Some of the main causes of job stress include unfavorable physical work conditions, including a noisy place, and work features, such as low job control and support, and high job demands [(5)].

One of the most common and well-studied models evaluating stress in job is the workplace stress scale (WSS) that was established by Marlin company, and the American Institute of Stress, USA (2001). This model involves eight questions investigating how the respondent feels toward the job. Regarding scoring, item of 6-8 are reverse-scored. It is a five-point Likert scale, ranging from never to very often scoring from 1 to 5 respectively. High level of job stress is reflected by high scores. The interpretation of the total scores was as follows: ≤ 15: relatively calm, whereas 16–20: fairly low, 21–25: moderate levels, 26–30: severe levels and 31-40: potentially dangerous level of stress. The questionnaire has been translated into many languages, but not yet in Arabic [(3)].

In particular, many previous studies have concluded that job stress is linked to poor health and absenteeism leave. A Belgian workforce of 20,463 employees found that both genders are predisposed to taking sick days, and a high incidence of sick days is connected with perceived high strain at work, especially when accompanied with insufficient social support [(4)].

Heavy job load specifically was demonstrated as a cause of long- and short-term sickness absence. This may comprise escaping the workload or to recover from disease caused by managing the heavy workload. **Kivimäki and his colleagues** [(6)] research on physicians' sickness absenteeism in Finland, concluded that feeling overloaded rise the short-term risk of absence among male physicians and the risk of long- and short-spells of absence among ward sisters and head nurses.

A study enrolled physicians in Canada to identify the influence of workload burden on their attitudes and outcomes reported that elevated workload led to increased absenteeism [(7)]. Similar results were found in research on nurses and health-care employees. Using the RAFAELA™ patient classification system, **Rauhala and colleagues** [(8)] found that participants exceeding the optimum workload by ≤ 15% had elevated risk of sickness absence.

Association of income or salary of the employee and the frequency of the sick leave is often controversial and open to debate and criticism. Some studies concluded that with low income, there is an association with high rate of job dissatisfaction, job stress and leave [(2)]. Other studies indicated that especially in countries with UNPAID sick leave, low income is associated with more Sickness Presenters, which is defined as the fact of going to work despite being ill, and it is considered also to be an important public health issue due to its association with a further health problems and more future spells of sickness absence [(9)].

Egyptian Law states that sickness of an employee by the concerned medical personnel is entitled to sick leave, and shall be recompensed based

on the Social Insurance Law Annual maximum of six months of paid sick leave at a rate of between 75% and 100% of the regular salary of the employee. The employee has the right to request that his sick days be moved to his remaining annual leave balance, and he also has the right to use his accrued annual leaves in addition to any sick days. Unless the employee has used the aforementioned period, the employer may not terminate the employee's employment owing to illness [(10)].

A group of interventions were stated in this study, but these are not frequently captured collectively. Instead, modifications of workplace or public health strategies for a healthy lifestyle and physical activity are frequently prioritized. Most of individual and organisational interventions reports were secondary and tertiary preventive approaches, with less emphasis on elementary prevention [(11)].

Effort-reward imbalance, low control and high-demand related to work, style of management and the job type result in work distress. Addressing management practice as one of the most consistent and potential work-related stressors is necessary. In non-governmental organization and private sectors, practicing management is more stressing and in middle- and low-management position compared to public sector and high management ones, respectively. The participants said their main sources of stress were having poor communication with management, receiving unfair treatment, and, most importantly, feeling unappreciated [(12)]. Furthermore, several participants cited workplace stress as a result of things such as the physical setting, understaffing and unsociable hours, all of which have been linked to adverse outcomes in previous studies. Stress was also related to financial concerns, especially in case of lacking financial recognition. **Stranks** [(13)] revealed that when employees feel underestimated due to insufficient compensation, lack of recognition or inadequate praise, the sense of devaluation may be experienced and contribute to job stress.

In contrast to individual interventions, participants in the current study tended to report the presence of primary and secondary organizational interventions at their place of employment. Regarding individual strategies, these primarily consisted of psychological interventions. Although, a lot of studies has shown that psychological therapies are helpful, they are often given at the secondary or tertiary level rather than for primary prevention [(14)].

Individual interventions were less commonly discussed by participants and more frequently viewed as being ineffective in decreasing stress of job. One of the main reasons organizational interventions were acknowledged as a successful stress management strategy was the fact that they were the primary interventions with the aim of changing or removing environmental stressors. The study‘s participants identified organizational culture change, job redesign, work-life balance policies introduction, participatory management encouragement, flexible working, organization reconstruction, and improvement of organizational communications as organizational interventions to manage stress at work. Management practices are not recognized as an intervention in the literature on organizational interventions. The primary cause might be that management is viewed as an integral component of organizational structures rather than as something that could be changed to reduce stress. Our research showed management practices to be a crucial workplace intervention, particularly management traits like open communication, supportiveness, approachability, and being appreciative, which were rated as having the highest perceived effectiveness. Compared to the commercial sector and non-governmental organizations, improving management practices as an intervention and adding flexibility to working structures were significantly more noticeable in the public sector. According to content analysis, individual and organizational interventions and stated reasons of stress may be related. For instance, because there were more managerial interventions in the public sector than in other sectors and because participants felt that they were effective, stress was reported there less frequently [(13)].

The majority of the participants' personal interventions were focused on healthy lifestyle choices like meditation, exercise, healthy food, recreational activities and social support from friends and family. It is necessary to underline the efficacy of such interventions and the future implementation in intervention package even when personal interventions outside of the workplace were not taken into account by the organizations. For instance, according to our prior reviews, programs of physical activity are one of few organizational treatments demonstrating convincing effects on absenteeism. However, physical activity may be promoted more generally. Managing work stress may become less more successful and less essential where it is required by modifying organizational treatments to leverage on and encourage personal interventions outside of the office.

The findings revealed that in comparison with public sector, particularly National Health Service (NHS), employees in private jobs and NGOs report greater perceived sources of stress and had fewer measures in place to help them manage stress. The potential organizational, personal and individual interventions that have been tried and proven useful are outlined below. These might be examined for correlations with improved worker health and wellbeing and reduced work stress.

The study's findings suggested that among primary health care patients seeking treatment for mental and/or physical health issues, work pressures and perceived stress related to them were widespread. A fifth of the study's participants reported feeling stressed out because of disputes and instinctive

organization, and almost half reported feeling stressed out because of personal obligations and commitments.The WSQ findings of Swedish working women seeking care at primary health care facilities revealed that increased workload and trouble setting boundaries were the two main sources of perceived stress. Comparatively, among employed Swedish women overall, one in ten reported high levels of stress due to unclear organizational structures and disputes, and one in four reported high levels of stress due to personal commitment and demands, as determined by the WSQ. Additionally, a 2016 national poll in Sweden found that almost 20% of the people there reported experiencing stress at work [(15)].

These results suggested that primary healthcare patients with mental and/or physical health issues report higher rates of work stress indicating that, in comparison with the general population. These individuals are more prone to experience work-related stress and ensuing ill- health. Within a year of baseline, almost one-third of the primary healthcare patients in the current study were on registered sick leave, regardless of cause. When compared to the general population of adults aged 18 to 64 in 2016, the year the survey was conducted, this number was three times higher. People who experienced work-related stress and illnesses as a result of it consult primary healthcare providers more frequently than those who do not, which could account for the variations in stress and sick leave when compared to the general population. On the other hand, those who experienced various forms of illness and seek treatment for them may also struggle at work and, as a result, perceive stress from the job as well as illness [(16)].

About 40% of the study's participants believed that they had a little impact at work, which includes both decision-making power and consideration of opinions. This number, in contrast, is two times higher than what was discovered when the WSQ was utilized to evaluate stress of work in a broad population of Swedish women. Another finding of the study was that patients who felt they had little control had twice as much of a chance of getting sick in the future. The association supports previous research using the WSQ to measure job stress as well as other studies using somewhat different metrics. The relationship between effect at work and sick leave, according to research findings, appears to be complicated. The connection between work autonomy and sick leave varied by age and occupational group among French clerks and blue-collar workers [(17)].

Contrary to men, women who perceived high levels of control and high expectations at work were more likely to take sick days than those who perceived low levels of both. In addition, the intensity of the connection between effect at work and sick leave among Danes was influenced by occupational group affiliation [(17)]. The contradictory research results may be accounted for by variations in study settings and design. The complicated relationship between effect at work and other contextual factors inside and outside of the workplace, however, may also be reflected in the findings. However, the connection was unaffected by gender, age, education and occupational class, or marital status in the current study.

Work commitment, which is a mindset that ties a person to a course of action relevant to their line of work, is regarded as a key concept in organizational and health studies. Accordingly, this study found that perceptions of high stress from obligations and demands increased the likelihood of taking a sick day by twofold. Strong personal commitment to an organization has been defined as a willingness to put up significant effort on behalf of the organization, a desire to stay with the organization, and a belief in the organization's fundamental aims and values, making it a valuable organizational and individual resource [(18)]. Though it has been noted that excessive work commitment is both a personality trait and a risk factor for stress-related illness. Thoughts of excessive commitment as a personality feature have been challenged because commitment may also be a flexible way of reacting to changes in the workplace. Based on system theory, it was claimed that an employee's sense of their position and performance at work is significantly influenced by the demands, expectations, and larger structured behaviors of societies and organizations. Work commitment was thus considered in this study as more of a state subject to change based on the social and organizational context at work than as a constant personal trait [(19)].

According to the study, there was a higher chance that future registered sick days will be taken if employees perceive stress at work as a result of an unclear organization, increasing workload, unclear goals, poorly defined work duties, and/or workplace conflicts. According to the results of a critical study on organizational climate and employee health outcomes, an unfavorable work environment has a negative impact on both employees' physical and mental health. The organizational environment, according to **Loh *et al.*** [(20)] serves as a social cue for behaviors that are seen to be expected and favorable actions that presumably contribute to favorable employee health outcomes [(20)].

To understand the work stress causes and resultant ill-health, it is crucial to take into account the individual's psychological, physiological, and behavioral responses to stressors as well as the interaction between the individual and environment. Understanding the underlying causes of the illness and making a diagnosis are crucial components of the work performed by general practitioners because primary healthcare is frequently the first point of contact for people experiencing all sorts of illness. Although the usefulness and significance of various models have been recognised, their work is frequently based on biomedical reasoning and methods. However, there aren't many questions directing their work in this direction because the standards, metrics, and diagnostic

equipment are predominantly bio-medical in nature. The work done by primary health care practitioners must be founded on multiple ideas and perspectives in order to be able to recognize, comprehend, and treat the range of expressions of poor health caused by work-related stress, at which point instruments like the WSQ may be helpful. In primary health care research and occupational health research, using frameworks other than the conventional exposure-disease paradigm may foster new forms of research questions rooted in societal contexts [(21)].

CONCLUSION

An effective tool for early detection of people at risk of being laid off due to these causes is required given the rising rate of sick leave from stress-related disorders. The workplace stress scale questionnaire is a trustworthy and valid questionnaire, according to the findings of the current study. More thorough validity assessment should be the main goal of future study on the creation of the questionnaire.

RECOMMENDATION

Further research has to be implemented to a larger sample size for a longer duration of follow up.

- **Conflicts of interest:** nil
- **Fund:** nil.

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