significantly improve the well-being of employees and prevent sexual harassment.

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The determinants of violence in health care sector

Amira Omrane [1], Olfa Jelassi [1], Myriam Ouerchefani [1], Imene Mlouki [2], Taoufik Khalfallah [1], Lamia Bouzgarrou [1], Sana El Mhamdi [2]

[1] Taher Sfar Teaching Hospital, Occupational Medicine and ergonomics, Mahdia, Tunisia, [2] Taher Sfar Teaching Hospital, Preventive and Community Medicine, Mahdia, Tunisia

Aim: To assess the prevalence of workplace violence and its determinants among health care workers in two public hospitals in the central-eastern region of Tunisia.

Methods: This was a cross-sectional bi-centric study conducted in healthcare workers of two public hospitals during eight months. A self-administered questionnaire related to the workers' socio-demographic and professional characteristics, self-esteem issues and mood disorders was used.

Results: A total of 546 healthcare workers completed the questionnaire giving a reponse rate of 19%. About 96% of them reported being a victim of at least one violent incident throughout their entire career in public health settings. Non-physical violence (95.8%) was more frequent than physical violence (26.4%). Perpetrators of both physical and non-physical violent incidents were mainly patients, their relatives or visitors (external violence). However, violence perpetrated by colleagues (internal violence) was not uncommon. Miscommunication, limited resources and inadequate dealing with previous violent incidents were the three main causes of external violence perceived by the healthcare workers. Multiple logistic regression showed that workers aged above 35 years, nurses, doctors and workers with a self-esteem issues of worthlessness and helplessness were more likely to be exposed to physical violence. It has also showed that doctors, nurses and technicians were more likely to experience non-physical violence.

Conclusion: Targeted preventive strategies should be developed to cope effectively with violent incidents in workplace.

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Health Related Quality of life among female office workers

Amira Omrane, Chayma Harrathi, Slim Ernez, Meriem Zarai, Aouatef Mahfoudh, Taoufik Khalfallah

Teaching Hospital Taher Sfar, Occupational Medicine and ergonomics department, Mahdia, Tunisia

This study aimed to evaluate health related quality of life (HRQoL) among female office workers.

Patients and methods: A cross-sectional multicentric study was conducted among medical secretaries (MS) working in three public hospitals. The study was based on a structured self-administered questionnaire related to socio-professional characteristics with a french validated version of the Nordic Questionnaire (to assess musculoskeletal diseases (MSDs), the Numerical Pain Rating Scale and the SF12 (with its two components Mental and physical Component Summary (MCS) (PSC)).

Results: The study population was entirely female, mean aged 43.75 $\pm$ 8.9 years and working for 15.65 $\pm$ 9.18 years. Moreover, 52 secretaries had an altered physical HRQoL (PCS <50.11) and 55 secretaries had an altered mental HRQoL (MCS <47.96). No significant association between MCS score and socio-professional characteristics was found. Physical HRQoL was found to be significantly associated with MSDs of the neck and the shoulder (p=0.024, p=0.043), quality of sleep (p=0.035), job tenure (p=0.045), the number of sites of MSDs (p=0.022), the level of pain (p=0.021). Participants working extra hours were significantly worse physical quality of life (p=0.05). MCS score was significantly associated with higher job tenure (p=0.024). After binary logistic regression modeling, MSDs of the back were risk factors for the physical HRQoL. Similarly, MSDs of the knees were a risk factor for mental HRQoL.

Conclusion: Programs of promotion of health and safety at work mainly among office workers should be incorporated within a wider ergonomic approach.

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Immigration projects among young doctors in Tunisia: Prevalence, destinations and causes

Kahloul Mohamed [1], Imene Kacem [2], Anouar Youssef Ben Slama [1], Mohamed Ajmi [1], Walid Naija [1], Nejib Mrizak [2]

[1] Sahloul Academic Hospital, Department of anesthesia and intensive care, Sousse, Tunisia, [2] Farhat Hached Academic Hospital, Departement of Occupational Medicine, Sousse, Tunisia

Introduction: The shortage of doctors has become a worrying problem in Tunisia. It is influenced by the phenomenon of immigration which remains poorly studied despite its magnitude. Our study aims to describe the migration intentions of Tunisian young doctors and to identify the associated factors that influence their decisions.

Methods: This is a cross-sectional, analytical survey conducted between January and June 2019. It included all young doctors practicing in academic hospitals of Sousse (Tunisia). Data collection was based on a standardized self-administered questionnaire.

Results: A total of 182 valid questionnaires were collected. The median age was 26.9±2.5 years and the sex-ratio was 0.47. Immigration projects were reported by 38.5% of participants. The main destination was France (36.3%%). The main contributing factors were marital status (p<10-3), resident status (p=0.002), surgical specialty (p<10-3), personal dissatisfaction (p=0.003), underpayment (p<10-3), workload and difficult work conditions (p<10-3), lack of appropriate training (p<10-3), financial crisis and economic instability (p<10-3), lack of a clear strategy for the healthcare system (p=0.005) and the impression by the model of other doctors who left Tunisia (p=0.01).

Conclusion: The rate of migration intentions expressed in this study highlights the emergent need of interventions emanating from the Tunisian health-care system's problems in order to stop the flow of young doctors towards developed countries in quest of better conditions.

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Benefits, concerns, and perceptions of knowledge workers regarding a video Stress Detection software

Matiilde Rodrigues [1], Simão Ferreira [1], Henrique Figueiredo [2], Fátima Rodrigues [3], Fernando Moreira [4], Luis Costa [5], Nuno Rocha [1]

[1] Porto's School of Health, CIR - Center for Rehabilitation Research, Porto, Portugal, [2] Ageas, Inovation, Porto, Portugal, [3] ISEP, Data Minning, Porto, Portugal, [4] Polygon, Development, Porto, Portugal, [5] Glintt, Inovation, Porto, Portugal

Introduction: Stress is not only highly destructive, causing various mental health disorders (anxiety, insomnia, depression), cardiovascular diseases, poor immune function, and presenteeism, as it is costly. While concerns about occupational stress have increased, new solutions for its management have emerged. Systems based on the use of facial recognition, posture, eye movements, video monitoring, and behavioral stress detection have shown good results. Their drawback has mainly been the recording of the said video feed and privacy threats proceeding. This Focus Groups aimed to raise the opinions, perceptions, and concerns of end users regarding the system under development.

Material and Methods: With a new solution in mind, we gathered two groups of knowledge workers, one group of team leaders, and a group of consulting psychologists to gather their perceptions. A Focus Groups was conducted online via Microsoft Teams, as COVID-19 restrictions were applied during that period.

Results: Against previous reports, knowledge workers showed that privacy threats were not their major concern. Both groups showed that Mental Health was their main focus as the follow-up structure regarding stress detection was the most prevalent topic being close to information sharing and software adaptation.

Conclusions: The results highly contribute to the development of future stress detection applications/software and the importance of a detailed and thorough explanation regarding the software framework.

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An unobtrusive stress detection software: Protocol design to assess the reliability of video plethysmography

Simão Ferreira, Matilde Rodrigues, Carlos Campos, Nuno Rocha

Porto's School of Health, CIR - Center for Rehabilitation Research, Porto, Portugal

Introduction: Software solutions for stress detection have been emerging. Existing solutions still largely rely on supervised learning methods, requiring extremely large sets of labeled data for each situation. Stress assessment using video plethysmography is a recent method that needs further investigation. The room lighting conditions and the person's movement have been identified as the main barriers to the software progression. Thus, it is necessary to build a laboratory pilot that will take into account these difficulties. We present an in-depth protocol on how to assess the reliability of a video facial recognition software on collecting physiological data (heart rate and blinking).

Experimental Protocol: We constructed a laboratory pilot where we could compare the software outputs to an electrocardiogram. The pilot contains two separate phases of data collection. In both phases, the participants will have two separate cameras: one front-facing, and the other at 45 degrees. The main difference in the phases are lightning scenarios, face positioning (through task vs resting), and low/high-resolution cameras.

Results: The laboratory pilots clearly report the limitations of video plethysmography software and their reliability.

Conclusions: This research and its methodology contributes to the development of future stress detection applications/software. Our technology strives to make a step forward in stress detection software.

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Work-Life Balance of Secondary School Teachers in Ibadan, South-West Nigeria

Mary Balogun [1], Joko Adeleye [2]

[1] *University of Ibadan, Community Medicine, Ibadan, Nigeria,*
[2] *University of Ibadan, Internal Medicine, Ibadan, Nigeria*

Introduction: Work life balance (WLB) is an important contributor to mental health and well-being of workers. This study therefore aimed to determine and compare WLB of rural and urban secondary school teachers in Oyo State, Nigeria.

Materials and Methods: This study utilised a comparative cross-sectional design and studied 1178 public and private school teachers across urban and rural local government areas (LGAs) of Oyo State using a multistage sampling design. WLB was assessed using three dimensions [work interference with personal life (WIPL), personal life interference with work (PLIW), and work/personal life enhancement (WPLE)] and summarized as scores. Total WLB score was obtained using the three dimensions.

Results: females had a total work life balance score that was about two points significantly higher than that of the males [$\beta = 1.99$ (95%CI: 0.734-3.252)]. Teachers in Public schools had a total WLB score that was 1.8points significantly higher than those in private schools [$\beta = 1.77$ (95%CI: 0.165-3.385)]. Total WLB score was four points significantly higher among those who taught less ≤ 5 subjects than those who taught>5 subjects [$\beta = 4.17$ (95%CI: 1.897-6.45)]. Those with > 50 students in a class had a total WLB score four points significantly higher than those < 50 students.[$\beta = 4.91$(95%CI: 3.483-6.354)]

Conclusion: Secondary school teachers experienced work life balance issues.

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Presenting with work-related mental ill health in Great Britain: Exploring key contributors

Roxane Gervais [1], Martie van Tongeren [2], Melanie Carder [2], Martin Seed [2], Ireny Iskandar [2], Kimberley Fowler [2], Laura Bryne [2]

[1] *Practical Psychology Consultancy Ltd, Management, Kingston Upon Hull, United Kingdom,* [2] *The University of Manchester, Centre for Occupational and Environmental Health (COEH), Manchester, United Kingdom*

Introduction: Mental ill health continues to be a pervasive element of the work environment, with ongoing research on the causes and consequences of the conditions. Despite the prevalence of research, limited data are generated on an annual basis that provide context to those consistent factors that adversely impact on workers' mental health. This paper explores occupational health data gained from workers who present to occupational physicians (OPs) and general practitioners (GPs) in Great Britain (GB) with symptoms.

Material and Methods: The data are drawn from The Health and Occupation Research Network (THOR) database, which OPs report to the Occupational Physicians Reporting Activity (OPRA) and by GPs to THOR-GP. They reflect cases over the 2009-2020 period, with diagnoses of stress, anxiety, depression or sleep problems using