Nurses’ perspective of work-related stressors

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Abstract. There are many issues affecting the human resources in organizations today. The volatility in the global economy has brought about many changes and the human resources are the most affected. They have to learn to adapt to these changes and cope with the daily pressures. No industry is spared as change is seen as the only constant. This research attempts to ascertain stressors from the perception of nurses at a private hospital in Malaysia. It investigates issues pertaining to their workload, work environment, social support, and manpower. Random sampling determined the sample size from the population frame provided by the hospital’s human resource department. Of the 108 nurses selected as respondents only 80 questionnaires were usable. The use of close-ended questionnaires using nominal and interval scales extracted information from the respondents. The data was then analyzed using the SmartPLS 3.3.2. Findings show that workload and manpower availability are stressors among the nurses. The management of the hospitals need to look into these two issues to help overcome the stress faced by the nurses.

1. Introduction
Malaysia is known for its efficient and effective system of healthcare [1]. It comprises a two-tier health care system where the public and the private sectors co-exist to provide care and treatment for Malaysians and lately, for foreigners. In fact, medical tourism in Malaysia has not only gained popularity over the years but Malaysia is now the top destination for medical tourism [2].

Nurses work as part of a team of professionals in the healthcare system that includes doctors, social workers, technicians and others. Nurses usually plan and provide medical as well as nursing care to those suffering from illness in hospitals, at home or other settings. They perform a wide range of tasks in providing adequate services, which makes them key in assisting doctors at hospitals. In addition to nurses’ responsibility of monitoring patients’ condition, they also observe and provide care for patients and their families who are both suffering physically and mentally [3][4].

Dynamic life-styles cause stress at the workplace. Work-related stress is widely accepted as the employee’s incongruous psychological perception between what the work demands and his/her ability to cope with that demand. The employee sees it as a hurdle in life due to demands, constraints or opportunities. Oftentimes work becomes stressful and easily tilts an individual’s work-life balance. Stress is widely known as an everyday life reality because everyone suffers in different situations and circumstances [5]. This is similar to what is suggested by the transactional theory, whereby any aspect of work-related situation can be perceived as a stressor from the perspective and evaluation of an individual [6].

Nursing has been identified as one of the professions with the highest stress because the nature of the job itself has an impact on nurses’ health mentally and physically. [7] stated that the nursing profession is stressful and challenging as nurses are required to provide emotional support as well as relieving stress of dying and crying patients.

2. Problem Statement
Work-related stress impacts healthcare professionals in many ways. Some of the ways it manifests itself are tiredness, harsh behaviors, anxiety, heightened blood pressure, shortage of self-confidence, low job
satisfaction and decreased efficiency [8]. It causes depression, isolation from patients, absenteeism and decreased use of skills.

Tan Sri Lee Tam Thye, a past chairman of National Institute of Occupational Safety and Health (NIOSH) quotes occupational stress among hospital workers as an accepted serious issue within the Malaysia’s healthcare industry. He mentions work stress as leading to an increased incidence of commuting accidents involving nurses (295 cases), followed by healthcare assistants (92 cases) [9].

Dr. Dzulkefly Ahmad, formerly a Health Minister said that 4.2 million Malaysians suffer from mental health issues out of which 2.1 million are women. The seven years beginning 2010 saw 57,570 Malaysian women seeking treatment for mental illness at government hospitals [10].

A study was conducted by Kronos Incorporated with 257 registered nurses working in United States hospitals [11]. The study found that 85 percent of nurses experienced fatigue at work while 63 percent experienced job burnout. At the same time, 41 percent of nurses changed workplace in the past year due to work stress. Ninety percent of nurses opted to leave the current workplace in order to seek better work environment.

Malaysia’s Healthiest Workplace report [12] showed that Malaysian employees have become increasingly affected by mental issues over the years. This led to staff absenteeism and turnover, which negatively impacts the productivity and performance of the company.

Hence, there is a need to understand the stressors among nurses at the workplace and this research is designed to study this issue among nurses at a private hospital in Malaysia. It is hoped that the findings from this study would help shed light on the work related stressors which could help to draw out programs or policies to reduce this phenomenon at the workplace.

3. Literature Review
3.1 Work-related Stress
Work-related stress has been highlighted as a crucial issue among employees in today’s hectic world. Stress would significantly affect one’s mental health. [10] report 29% of Malaysians has mental issues because of stress. The term work stress varies depending on perception. [13] defined stress as documented outcomes of demanding work intensification that involves working hours, which can affect performance and effort of employees. Stress is a reaction towards new or threatening factors in an individual’s work environment. It can affect individuals physically and emotionally when job requirements do not match employee’s resources, needs as well as capabilities [14].

AIA Vitality, the first science-backed survey commissioned to analyze company productivity and employee health, found in its 2019 survey that 51% of the 17,595 employees suffer from work-related stress, and 53% have less than seven hours of sleep each night. Noted in the report is the fact that 7% experienced moderate to high level anxiety and depressive symptoms. Most fall within 18 to 40 years and are millenial. These indicators show that half the Malaysian workforce is stressed out and lacking enough sleep, and about 1 in 10 Malaysian employees is either anxious or depressed. Millennial born between 1981 and 1996, will turn 24 to 39 by 2020 [15].

Nursing is a stressful occupation, and their role is compounded by multiple conflicting demands imposed not only by supervisors and managers but also by medical and administrative staff. It causes work overload and role conflicts. The work-related stress experience generally detracts from the quality of nurses’ working lives, increasing minor psychiatric morbidity, and at times contributing to forms of physical illness, in particular musculoskeletal problems, stress and depression [16].

The major stressors experienced by nurses in India include death and dying patients’ situations and excessive workloads [17][18][19][20]. [21] found workload, relationship with clinical staff, leadership and management styles, emotional needs of patients and their families, less than accurate patient diagnosis, death and dying, shift work and poor rewards to be the main stressors of nurses’ work.

Work load and problems with supervisors follow “death and dying” situations as prominent sources of stress [22]. Nurses working in Indonesia too showed that “death and dying” was the foremost occupational stressor, followed by “Workload”[23]. A study conducted in central China showed “Death and dying”, “Workload” and “Inadequate preparation” situations as the most common sources of nursing stress [24]. The greater stressors among 30 Filipino registered nurses were “Death and dying”, “Conflict with physicians” and “Inadequate preparations” [25]. In hospitals in New Zealand, New South Wales
and Michigan "Workload" followed by "Death and dying" were found as the more common sources of stress among nurses (Chang et al., 2007; Hoffman & Scott, 2003).

3.2 Workload
Workload is the volume work an individual does. A distinction lies in the actual volume of work and the individual’s perception of it. This perception is formed by the individuals’ mental capacity of processing the received information and translating it into decisions and subsequent actions. In order for nursing work to achieve required safety, health, comfort and efficiency levels in the long run, the goal would be to fan out the labor needs optimally so that no extra workload nor less than necessary minimum workload is allocated to them (Mohammadi et al., 2015).

Beh & Loo (2012) reveal that nursing shortages in Malaysia cause nursing stress because of the perception of having to cope with a heavier workload. Multitasking nurses perform both nursing and non-nursing work. According to Long et al., (2014) excessive workload results from role ambiguity which makes role expectation unclear and uncertain and whether those expectations are being met.

Organizational set-ups and sufficiency of human resources are also integral causative factors related to workload and, one can conclude that there is a need to increase the number of nurses in order to reduce workload (Myny et al., 2012). Human resource shortage also causes high degree of workload and burnout (Bragard et al., 2015). Manpower too, has an integral association with workload.

3.3 Manpower issues
There are manpower issues in the health care sector in many countries around the world and Malaysia has not been spared either. There are fewer people entering the healthcare sector as there are more career options for women now, while the existing nurses’ population age. To make matters worse, the over-65 aged population is increasing, causing a higher need for health and medical care. The work environment with night shifts and weekend shifts is not helping matters as the younger generation finds work life balance extremely pertinent in their choice of career (Keenan, 2003).

Johan, Sarwar & Majeed (2017) clearly states that the healthcare industry faces its biggest issue which is the shortage of staff especially among nurses. Underutilizing or overloading is a condition when management is not able to distribute manpower based on actual workload (Alenezi, Aboshaiqah, & Baker, 2018).

3.4 Working environment
Working environment has been conceptualized differently by researchers. Songstad, Rekdal, Massay and Blystad’s (2011) study of working conditions envelope all working environment and all existing circumstances affecting labor in the workplace. Manyisa (2015) says it is the environment in which an individual performs his work and contains all physical and psychological factors and circumstances that influence that work. Work environment is associated with occupational stress among nurses. In one teaching hospital in South-West Nigeria, Faremi et al. (2019) states that the oncology nurses there found work environment to be a stressor. Nurses could not participate in the decision-making processes. Poor communication within the organization, lack of family-friendly policies, among others, too played its role in creating the stressful and less than conducive work environment. The unpleasant hospital environment becomes a physical and mental threat to well-being of nurses. Poor physical working conditions, overcrowded wards, noise, suffocating ventilation, air pollution, reduced lightning, poor ergonomics, and inflexible hours all contribute to the added workplace stress.

Long et al. (2014) found that physical work environment can enhance work stress and create hindrances which prevent employees from performing at desired levels. Healthcare industry workers such as nurses, physicians and others work under extremely stressful physical working conditions by comparison to other industries. Badly thought out ergonomic design of patient beds as well as nurses’ stations lead to back pain, fatigue, and other injuries among nursing staff.

Beh & Loo (2012) argue that work stress is often associated with poor working environment. This usually is made up of cramped work spaces, noisy and hot areas, putrid smelling sections and corridors as well as danger prone conditions and physical strain. The existence of a thermal condition at the
workplace itself leads to job pressure among nurses. Rising levels of heat produces detrimental effects on nurses’ ability to carry out their tasks.

The synthesis of 16 years of research using the Penn meta-analysis confirm the significant consistent association of negative outcomes for nurses and patients with poor work environments. These associations are notable in nurse job dissatisfaction, burnout and plans to exit the workplace. Poor work environments also account for high patient mortality, and hospital acquired infections (Campaign for action, 2019).

3.5. Social support
Low superior support, poor supervisor relationship, challenging colleague and subordinate relationship make three of the top six events that cause nurses work stress. The other three are inability to obtain expected promotion, low assurance of job security and skills and abilities unmatched with job requirements (Beh & Loo, 2012). It indicates poor relationship at workplace obstructs career development and contributes to their work stress. Ayomi (2015) revealed that social support at workplace is an important medium needed to reduce work stress among nurses as it would result in positive influence towards productivity and employee welfare. The social support between co-workers where the co-workers support each other will create a positive relationship among themselves allowing them to work together and create a pleasant working environment. Hence, social support could prevent the existence of psychological distress among nurses. It is also said that when there is social support from co-workers it would create a sense of comfort and serenity in workplace as well as getting moral support to focus on performing their task. Fitzgibbon (2016) claim that most nurses report good working relations with physicians together with competent nursing colleagues as vital. Good relationships are essential to relieve work stress among nurses.

Conversely, Circenis & Millere (2012) found that lower burnout levels, lesser emotional fatigue and depersonalization would emerge if nurses are willing to discuss sensitive and confidential issues with their supervisors. In conclusion, the perception by nurses towards the support shown by their superiors and supervisors give them the positive feel and attitude towards clinical supervision and tends to lower their stress and burnout levels.

4. Research Methodology
This research was conducted to determine the relationship between excessive workload, poor work environment, lack of social support and shortage of manpower with work stress among nurses at a private hospital. Only nurses from two departments were targeted as these departments allowed the nurses to spend time answering the questionnaire as they did not deal with emergencies. The population of nurses in the two departments in the hospital was 150 and using the simple random technique, a sample of 108 nurses was selected as proposed by Krejcie and Morgan (1970). However, only 80 questionnaires were usable (74.1%). Questionnaires were personally administered to the respondents and they were expected to return the questionnaire after 30 minutes. A box was strategically located at both the departments for the nurses to drop off the questionnaires. Once data collection process was over, data analysis was conducted.

5. Results and Findings
The respondents were mainly female (92.5%). More than 50% of them were between 20-29 years old. They were mainly Malay (73.8%) and married (61.3%). The respondents mainly obtained a Diploma in Nursing (91.3%). The Respondent’s Demographic Profile can be seen in Table 1.

| Table 1. Demographic Profile of Respondents |
|---------------------------------------------|
| Gender          | Frequency | Percentage (%) |
| Male            | 6         | 7.5            |
| Female          | 74        | 92.5           |
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SmartPLS 3.3.2 (Ringle et al., 2015) was utilized to carry out the analysis. It is a second-generation structural equation modeling software. It tests both the measurement model and structural model simultaneously (Ramayah et al., 2018).

5.1. Measurement model
Hair et al. (2020) provides the guidelines for assessing the measurement model by first assessing the loadings (≥ 0.708), average variance extracted (≥ 0.500) and composite reliability (≥ 0.700) (see Table 5.2). Thus, from the values presented in Table 5.2, there is sufficient convergent validity and reliability Next, discriminant validity was assessed using the HTMT ratio suggested by Franke and Sarstedt (2019). If the HTMT ratios are ≤ 0.85, then discriminant validity is achieved. Table 2 shows all the HTMT ratios are lower than 0.85 thus there is good discriminant validity.

5.2. Structural model
The hypotheses were tested by running a bootstrapping procedure with 5,000 re-samples to generate the standard errors, t-values, p-values, and bias corrected confidence intervals (Hair et al., 2020). The multicollinearity issue was ruled out by examining the variance inflation factor (VIF). All values being lower than 5 (Hair et al., 2020) indicates the absence of multicollinearity issue in his study. This can be seen in Table 3. Next, the variance was assessed which explains Work-Related Stress constructs in our model. The R² = 0.414 (Q² = 0.232) indicating that 41.4% of the variance in work related stress can be explained by the 4 predictors. Workload (β = 0.342, p< 0.05) and Manpower Issues (β = 0.301, p< 0.05) were positively related to Work Related Stress while Social Support (β = 0.040, p> 0.05) and Work Environment (β = 0.048, p> 0.05) were not significant predictors. The effect size of Workload (f² = 0.101) and Manpower Issues (f² = 0.063) were greater than 0.02. Thus, H1 and H4 were supported while H2 and H3 were not supported.

Table 2. Mean, Standard Deviation, Skewness, Kurtosis and Discriminant Validity (HTMT ratio)

| Construct | Mean | Std Dev | Skewness | Kurtosis | Cronbach | CR | AVE | 1 | 2 | 3 | 4 | 5 |
|-----------|------|---------|----------|----------|-----------|----|-----|---|---|---|---|---|
| 1. Workload | 3.272 | 0.383 | -0.777 | 0.746 | 0.772 | 0.777 | 0.853 | 0.594 | | | | |
| 2. Social Support | 3.202 | 0.372 | 0.457 | -0.034 | 0.878 | 0.889 | 0.902 | 0.506 | | | | |
| 3. Work Environment | 3.097 | 0.404 | 0.782 | -0.513 | 0.820 | 0.821 | 0.874 | 0.582 | 0.667 | 0.831 | | |
| 4. Manpower Issues | 3.254 | 0.354 | 0.489 | 0.606 | 0.806 | 0.810 | 0.865 | 0.563 | 0.835 | 0.828 | 0.607 | |
| 5. Work Related Stress | 3.249 | 0.419 | -0.446 | 0.417 | 0.861 | 0.868 | 0.900 | 0.643 | 0.708 | 0.538 | 0.478 | 0.675 |
Table 3. Hypotheses Testing

| Hypothesis | Relationships                      | Std Beta | Std Error | t-value | p-value | BCL LL | BCL UL | p  |
|------------|------------------------------------|----------|-----------|---------|---------|--------|--------|----|
| H1         | Workload Work Related Stress       | 0.342    | 0.160     | 2.143   | 0.016   | 0.068  | 0.574  | 0.101 |
| H2         | Social Support Work Related Stress | 0.040    | 0.174     | 0.229   | 0.409   | -0.223 | 0.328  | 0.001 |
| H3         | Work Environment Work Related Stress | 0.048   | 0.145     | 0.333   | 0.370   | -0.222 | 0.249  | 0.002 |
| H4         | Manpower Issues Work Related Stress | 0.301   | 0.157     | 1.921   | 0.028   | 0.074  | 0.620  | 0.063 |

6. Conclusion
This research examines and determines factors concerning nurses work-related stress in a private Malaysian hospital. Prior research indicates numerous elements influence work-related stress, including workload, work environment, social support and manpower issues. According to Moustaka & Constantinidis (2010), the nature of nursing causes major stress. This can be related to the challenging work tasks, shift work schedules, the working environment, under-staffing as well as difficulty in handling patients. To prevent work stress among nurses, it is pertinent to understand the factors contributing to work stress. Hence, the management of hospitals has to look into how manpower issues can be managed together with workload. The government too needs to emphasize the importance of manpower issues in the healthcare sector. With an aging population, nursing care will be very much needed in the future. Future researcher should expand the research to more hospitals including government hospitals. This will widen the scope of research and can be generalized to the nursing profession in this country.

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