# A Review of Psychosocial and Psychological and its Related Issues in the Occupational Settings

Nuruzzakiyah Bt Mohd Ishanuddin Occupational Safety and Health Program Faculty of Engineering Technology, Universiti Malaysia Pahang 26300, Gambang, Pahang, Malaysia nuruzzakiyah.mi@gmail.com

Ezrin Hani Bt Sukadarin Occupational Safety and Health Program Faculty of Engineering Technology, Universiti Malaysia Pahang 26300, Gambang Pahang, Malaysia ezrin@ump.edu.my

Hanida Bt Abdul Aziz Occupational Safety and Health Program Faculty of Engineering Technology, Universiti Malaysia Pahang 26300, Gambang Pahang, Malaysia

hanidaaziz@ump.edu.my

*Abstract*—Psychosocial risk and psychological risk were different from each other although they were associated to the term of mental health. Both are related to a condition of a person mental health that they are not physically visible specifically in the workplace. The study regarding mental health at the workplace has been conducted long time ago by many researchers, thus psychosocial and psychological issues in the workplace were quite familiar due to the emergence of new types of hazards and associated risks in the workplace settings. In respect to that, no one should be harm by their work nature had driven more studies on these invisible aspects. To avoid more confusion between these terms, proper understanding must be developed in order to use any of these terms in research. This paper draws a clear distinction between these two terms (psychosocial risk and psychological health) and the related issues in the workplace settings.

Keywords—Psychosocial risk; psychological health; mental health

## **1. INTRODUCTION**

The study on mental health at the workplace was not very prominent among safety and health researchers, this might be due to their nature as the unseen hazards compared to other types of occupational hazards. But, those unseen were not remaining the same since the adverse effect on workers can be physically visible. It was said that France Telecom suicide that occurs between 2008 and 2009 had dramatically projected the reality of mental health adverse effect to the front stage [1]. This issue shows the psychological and physical health of a person can be affected by psychosocial work environment [2, 3] if the emergence risk were not managed properly. Since then, the study on mental health of workers to manage psychosocial risk at the workplace [4-6] had been developed to enhance the work environment conditions and the well-being of the workers at the workplace. However, in Malaysia, the scenario of psychosocial issues was neglected and little is being done in the aspect of occupational safety and health generally [7].

## 2. OBJECTIVES

## The aim of this paper is to :

- 1) To define literally psychosocial risk and psychological health risk.
- 2) To explore scientific literature on psychosocial risk factors and psychological health.

# 3. METHODOLOGY

#### A. Study Design

The systematic review was conducted from various scientific publications using electronic databases such as Science Direct, Web of Science, Cochrane Library, Google Scholar, and Scopus to find the definition of psychosocial and psychological respectively.

#### B. Search Strategy

The keywords were used to find the articles includes, psychosocial hazards, the psychosocial risk at workplace/industries, occupational psychology, mental health, psychological health, mental health at work and combinations of the search terms using Boolean operator "AND" to narrow down the search restricted on the title. The databases of Science Direct, Web of Science, Cochrane Library, Google Scholar, and Scopus were assessed from late August until early November 2017.

#### C. Inclusion Criteria for the Articles Searched

Figure 1.0 shows the outline of selection of articles from electronic databases. There are 93 articles that have been selected roughly from the keywords that were searched through the electronic databases. In the screening process, the abstract and title were examined, and duplicated articles were removed, left with 73 articles. After reading the full text and applying the inclusion criteria, only 29 articles were considered eligible to the focused topic. The inclusion criteria that were applied to the articles include articles that are in Malay or English, published from 1990 until 2017 and were addressed with psychosocial risk and psychological health at work.

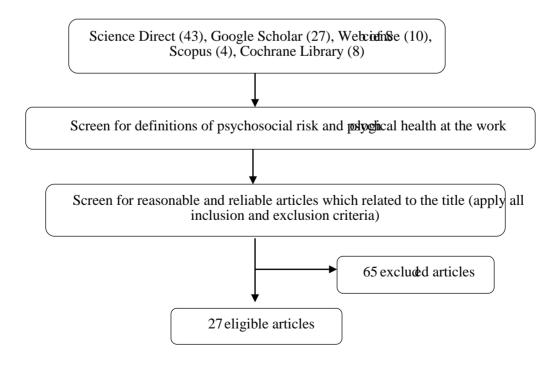


Figure 1.0: Flow chart on the selection of the articles of the reviews.

## 4. RESULT AND DISCUSSION

#### A. Psychosocial Risk Definition

The term psychosocial in general is the combination of the word 'psycho' and 'social'. The word 'psycho' originated from the word *psykho* in Greek which means mental. 'Psycho' means relating to the mind or mental processes, [8] whereas the word 'social' originated from the word *socius* in Latin which means friend. Other than that, the word social is defined as relating to society or organizations [9]. Therefore, psychosocial is defined as the correlation between 3 factors which are social factors, individual thought and behaviour [10]. In the context of workplace setting, psychosocial is consider as the aspect of both psychological and mental aspect relationship with the work environment factors. It will become a problem if these psychosocial issues become a risk to the workers. Psychosocial aspect in the workplace sometimes considered as issues pertaining to work organization [1]. Thus, it is important to understand what the psychosocial risk is about. Table 1.0 shows the definition of psychosocial risk from various literature. In short, to understand the psychosocial risk both reference [1] stated that it is risk-related with the way work is designed, coordinated and managed. While [11] defined psychosocial risk as potential psychosocial and physical harm to the workers. Conclusively, the psychosocial risk is defined as organizational context that can cause psychological and physical harm to the workers. Conclusively, the psychosocial risk is defined as organizational characteristics and working environment that causes harm such as role ambiguity and work overload. These aspects of the workplace can be optimized to maintain a healthy work environment and promote productivity and development in terms of job task of the workers.

Table 1.0: Description of psychosocial risk with respective authors									
Author	Description of psychosocial risk								
[1]	Risk-related with the way work is designed, coordinated and managed.								
[11]	The potential of psychosocial hazards to cause harm such as consensus in terms of their incidence and prevalence in the work environment, the particular groups they affect, and the measures taken to prevent them or alleviate their impact.								
[14. 15]	Related to a variety of job and organizational characteristics and working environments. Range from bullying and harassment to an array of organizational risks such as work overload, lack of social support, role ambiguity, and demand control or effort balance.								
[4, 5, 12, 13]	Work design, work management, work organizational context and social factors at work that are likely causing physical and psychological harm other than affect organizational performance.								

#### Table 1.0: Description of psychosocial risk with respective authors

#### B. Summary of Literature Review on Psychosocial Risk

Data extraction was applied to the selected articles and put into table systematically which includes title, authors, study population, methods used in the study, and the result of the study. This data extraction intended to review the study methodologies used other than to find literature that supports the study. Psychosocial risks are the risks associated with the aspect of work organization, other than work design and work management [1, 12]. Psychosocial risks are dimensions that possibly associate with psychological occurrences to the social environment and to pathophysiological alteration of a person [16]. Other than that, these studies also agreed that work organization settings have potentials for causing psychological and physical harm, at the end will cause harm to the workers [4, 5, 12, 17]. These studies inferred that organizational work environment did affect both physical and mental health of the workers in a certain way which it might be seen as trivial to the organization and unaware of the consequences. Based on the previous studies in Table 2.0 and 3.0, psychosocial risk issues quite popular within services industries in the European countries; and prominent method used to conduct the studies were using questionnaires [14][18-19]. Some studies indicated that psychosocial management, policies, and preventive programs lead to positive consequences in terms of psychosocial performance among the workers [1, 19, 21]. For example, a study

conducted by [19] found that, psychosocial intervention by implementing policy in the work organization results in a decrease in the report regarding psychosocial issues and helps to improve the management of work-related stress. In addition, with appropriate training and resources to manage psychosocial issues, it was predicted to potentially help the interventions of psychosocial risk at the workplace by the inspectorate officers [21]. A study conducted by [1], to enhance the effectiveness of psychosocial risk prevention management, there are needs to draw a clear distinction between psychosocial factors and work organizational issues. This is due to the misunderstanding between these two aspects of psychosocial issues at the workplace remains dormant and causing problems to the worker's performance and development at the workplace. In contrast, a study conducted by [22], despite having proper safety and health management systems it does not give assurance that the psychosocial risks are controlled in an intended manner. Thus, recent studies which help to improve the management of psychosocial interventions include psychosocial risk performance indicator [12] other than using the modelling technique to identify the critical exposure level of psychosocial risk [23]. The need to manage psychosocial risks at the workplace is vital to ensure the wellbeing of the workers. Health impact of this risk includes mental disorders and cardiovascular disease was detected among the exposed workers [24, 26].

# Table 2.0: Previous studies on psychosocial issues in workplace

<b>N</b> 7	Authors	G 1		Met	hods		<b>D</b>	Industry	Country
No.		Sample	Q	R	Ι	0	Results		
1	[27]	13		X			Negative association between stress and quality of life among university students.	Education	Brazil
2	[28]	1812	X				The analysis showed a convincing correlation of job resources, job demands and work-related stress symptoms. There are also differences in terms of psychosocial risk factors and work-related stress symptoms both at offshore and onshore.	Oil and gas	Norway
3	[20]	36000	X			X	The improvement of psychosocial performance in European countries by implementation of management systems and preventive activities in the company.	Manufacturing	Spain
4	[18]	75	X				70% of the respondents think that the salary is more important than safety.	Management and service	Romania
5	[12]	730	X			X	The practice of psychosocial risk performance indicator in the organization help the psychosocial risk management.	Oil and gas	Norway
6	[23]	N/A				X	Benchmark Dose (BMD) Modelling can be used to identify critical exposure level for psychosocial risk.	N/A	Australia
7	[22]	N/A				X	OHSM systems certified do not assure the management of psychosocial risk were regulated as expected by the standard.	N/A	Denmark
8	[29]	548	X				Psychosocial health risks (cognitive load, temporal autonomy, job description, supervision-participation, role definition, worker interest, and personal relationships) encountered by the workers are acceptable.	Agriculture	Spain

\*N/A : Not available or not applicable \*Q : Questionnaire or Survey \*R: Review \*I : Instrumentation \*O: Others

Table 3.0: Previous studies on psychosocial iss	sues at the workplaces
---	------------------------

No.	Authors	Sample	Methods				Results	Industry	Country
110.	1 tutions	Bumple	Q	R	Ι	0		maasay	Country
9	[19]	2984	x				Policy level intervention decrease reported concern on psychosocial risks over time and improve work-related stress management.	Management	Europe
10	[30]	216	X		X		Heat illness at construction site is a consequence of environmental hazards, personal physiological conditions, and organizationally enabled individual autonomous adaptation	Construction	China
11	[1]	N/A				X	By making distinction between issues related to work organization and psychosocial risk factors, the risk prevention is more effective.	N/A	Europe
12	[21]	N/A		X			Appropriate training and sufficient resources have potential positive outcomes of inspectorate intervention on psychosocial risk other supportive settings.	Management	Europe
13	[24]	N/A		X		Х	Psychological stress factors are related to a wide range of adverse health outcomes in patients with cardiovascular disease.	N/A	Europe
14	[25]	349	X				There are higher prevalence of minor mental disorders among healthcare workers compared to other general workers.	Healthcare	Taiwan
15	[14]	125				X	Despite, initiatives by Australian jurisdictions, psychosocial hazards remain a marginal area of Inspectorate activity.	Management	Australia
16	[26]	1500	X				The workers under studied were having positive symptoms of common mental disorders.	Construction	Netherland

\*N/A : Not available or not applicable \*Q : Questionnaire or Survey \*R: Review \*I: Instrumentation \*O: Others

## C. Psychological Health Definitions

The term psychological is derived from the word psychology. It is the combination of the word psychology(y) and the prefix – ical which is used to form adjectives. Literally, psychological means mental or something that related to psychology. Basically, psychology is a combination of 'psycho' and '-logy'. 'Psycho' was originated from the Greek word which means mental while '-logy' means science or study of. It was originated from Greek word *logos*. Psychological is something related to the mind and feelings [31] and also can be defined as related to the mental and emotional state of a person [32]. In relation to the psychological meaning, the psychological state of a worker does become a major concern because it can affect work performance in the workplace. In workplace settings, psychological aspect is interpreted as the state of mental health or emotional well-being of workers. The psychological health term is used to determine the mental state of the workers mainly in the workplace settings and the way organizational practices are implemented other than the process of decision making are made and communicated [6]. Therefore, the understanding of psychological health at the workplace is vital to ensure the safety and well-being of workers. Table 4.0 shows the description of psychological health at the workplace. In sum, psychological health define by [33] is the potential of an individual to function normally and cope with normal stresses of life. While [34], define psychological health as the underlying issues at the workplace other than [35] it can be expressed as performing dysfunction and ill-being in the workplace.

Authors	Descriptions
[33]	A well-being of a person to aware their potential, able to cope with common stresses of life, able to work productively also afford to make contribution to society.
[35]	Expresses performing effective dysfunction and of ill being.
[34]	The hidden issues at work which outdo with other workplace health issues and causing bigger problem unconsciously.

#### Table 4.0 Description of psychological health from several authors.

#### D. Summary of Literature Review on Psychological Health

Psychological health or often recognized as mental health is also known as the well-being of the workers in the workplace. Psychological injuries are the hardest to manage compared to other types of hazards. They have the least recognition, are often neglected or even misunderstood with, and had the least support whereby nobody ever wants to deal with; unless an intervention has to be forced [34]. The aspect of psychological issues in the workplace which often considered intangible would cause latent adverse health effects among employees. Due to the exposure for a certain period of time, eventually, the risk of getting mental disorder become prominent and affect the workers' productivity in work. Internationally, most developed countries such as European countries have recognized the negative effect of mental illness on the countries' economy. For this specific purpose, there is a need to conduct more studies regarding this issue, especially in Malaysia. This lead to the focus on a variety of initiatives to manage this issues throughout most of the industrialized world globally [36]. The research found that mental health issues are prominent in the working adults and were related to significant disability among employees [37]. Based on previous studies in Table 5.0 and 6.0 regarding psychological health in the workplace, most of the studies were conducted by the researchers in the European countries [38, 39, 40, 43, 44, 45]. This shows the awareness of European countries on the issues of psychological health at work. Furthermore, most of the studies conducted in healthcare industries were among medical professionals such as doctors and pharmacists [40, 42, 45, 46]. The most common methods used to conduct the study was by reviewing scientific articles [38, 39, 41, 42, 43]. Managing psychological health in the workplace is mainly the employers and work management responsibilities. But many employers misrecognized and ignored the psychological health aspects in the workplace [40]. These issues lead to the adverse health effect to the workers due to the long period of exposure and latent or inactive prevention of work organizations. The healthcare industries highlighted the work environment affects the mental health, and well-being of the workers [46], and are also prominent psychological distress among these workers compared to the general population [45]. A study conducted by [42] on the presence of violence among healthcare professionals causing physical, psychological, and emotional has adverse effect on the worker. Correspondingly, among the initiatives suggested, senior workers or the management are supposed to promote conducive work settings, and systematic policies and practices in order to intervene and prevent others. Rather than managing psychosocial risks, causing psychological health adverse effects [47].

No.	Authors	Sampla	Methods				Results	Inductory	Country
INO.		Sample	Q	R	Ι	0	Results	Industry	Country
1.	[38]	20		Х			Due to lack of focus on intervention of the risk, the rating systems of the guidelines are low. The recommendation provided were not include instruction to implement and individual focus.	N/A	Europe
2.	[39]	N/A		X			Alternative approaches including the application of guardianship and related principles from the routine activity approach, which are well-established strategies for prevention of victimization in a range of contexts.	N/A	Europe
3.	[40]	87				X	Most employees and workers misrecognized and ignored the psychological health and safety hazards at the workplace.	Healthcare	Canada
4.	[48]	9986				X	Attaining and maintaining higher physical activity level related with psychological well-being independently.	N/A	Europe
5.	[47]	274	X				These factors should take into consideration by company to prevent psychosocial hazards. There are positive work condition and effective systems of policies, procedures and practices.	Public sector	Vietnam

Table 5 0: Previous studies on	psychological health issues in the workplace
Table 5.0: Previous studies on	psychological health issues in the workplace

\*N/A : Not available or not applicable \*Q : Questionnaire or Survey \*R: Review \*I: Instrumentation \*O: Others

No.	Authors	Sample		Met	hods		Results	Industry	Country
INO.	Autions	Sample	Q	R	Ι	0	Results		
6.	[41]	N/A		X			1/3 of studies used a combination of individual, groups, and organization level interventions. Most often supported by psychosocial intervention or participatory research. These components brought positive and significant results with regard to work and mental health outcomes towards workers.	Service	Europe
7.	[42]	N/A		х			The studies identified seven categories of consequences of workplace violence which are physical, psychological, emotional, work functioning, and relationship with patients or quality of care, social or general, and financial.	Healthcare	Canada
8.	[43]	N/A		х			Veterinary nurses with a clearer understanding of the detrimental effects it can potentially have on an individual's well-being if they are unable to utilize the appropriate style of coping mechanisms.	Veterinary	Ireland
9.	[44]	N/A				X	Work and non-work factors were often interrelated pressures prior to death.	Construction	Australia
10.	[46]	62	х				Workplace environment is prime factor to the occurrence of mental health problems and affect well-being of workers.	Healthcare	Singapore
11.	[45]	1900	Х				There are higher prevalence of psychological distress with 63% to 80% compared to general workers.	Healthcare	Australia

\*N/A : Not available or not applicable \*Q : Questionnaire or Survey \*R: Review \*I: Instrumentation \*O: Others

## 5. CONCLUSION

In conclusion, a psychosocial risk is the association of mental and organizational work environment that causes harm to the workers. While psychological health is a mental or emotional state of the workers. Scientific pieces of literature on psychosocial risk factors determined that it can affect the psychological well-being of the workers. In this review, there are 27 scientific articles that were selected and applied the inclusion criteria as to study the psychosocial risk and psychological health among working populations. As psychosocial risk and psychological health are related to each other, psychosocial aspects eventually will affect the psychological health aspect of the workers. In this review, psychosocial risk and psychological health are defined literally from various studies to draw a clear distinction between them and the association of the two aspects in the workplace. It is found that the psychosocial risk factors such as work overload could lead to adverse health effect of the workers which over a period of time can become visible by the psychological health indicators such as workers performance and productivity. Hence, it is important to conduct psychosocial studies in Malaysia as to ensure the safety and well-being of the employees in the workplace.

#### ACKNOWLEDGMENT

This study was supported by the grant of Developing a Safety Culture in Manufacturing Industry Based on Human Behavior under Universiti Malaysia Pahang (Grant No.: RDU170308).

#### REFERENCES

- [1] S. Leka, W. Van Wassenhove, A. Jain, "Is psychosocial risk prevention possible? Deconstructing common presumptions," *Saf. Sci.*, vol. 71, no. Part A, pp. 61-67, 2015.
- [2] A. Pereira, C. Fernandes, "Exposure to psychosocial risk factors in the context of work : a systematic review," 2016.
- [3] A. Tomaschek, S. S. Lütke Lanfer, M. Melzer, U. Debitz, G. Buruck, "Measuring work-related psychosocial and physical risk factors using workplace observations: a validation study of the Healthy Workplace Screening," 2017.
- [4] S. Leka, T. Cox, "The European Framework for Psychosocial Risk Management: PRIMA-EF," 2008.
- [5] S. Leka, A. Jain, "Health Impact of Psychosocial Hazards at Work: An Overview," 2010.
- [6] National Standard of Canada, *National Standard of Canada CAN/CSA-Z1003-13/BNQ 9700-803/2013: Psychological health and safety in the workplace*, 2013.
- [7] E. Kortum, S. Leka, "Tackling psychosocial risks and work-related stress in developing countries: The need for a multilevel intervention framework.," *Int. J. Stress Manag.*, vol. 21, no. 1, pp. 7-26, 2014.
- [8] Cambridge University Press 2018, "Psycho Meaning in the Cambridge English Dictionary." [Online]. Available: https://dictionary.cambridge.org/dictionary/english/psycho. [Accessed: 08-Jan-2018].
- [9] English Oxford Dictionaries, "social | Definition of social in English by Oxford Dictionaries," 2018. [Online]. Available: https://en.oxforddictionaries.com/definition/social. [Accessed: 13-Apr-2018].
- [10] English Oxford Dictionaries, "psychosocial | Definition of psychosocial in English by Oxford Dictionaries," 2018.
  [Online]. Available: https://en.oxforddictionaries.com/definition/psychosocial. [Accessed: 13-Apr-2018].
- [11] C. Di Tecco, A. Jain, A. Valenti, S. Iavicoli, S. Leka, "An evaluation of the impact of a policy-level intervention to address psychosocial risks on organisational action in Italy," *Saf. Sci.*, vol. 100, pp. 103-109, 2017.
- [12] L. I. V. Bergh, S. Hinna, S. Leka, A. Jain, "Developing a performance indicator for psychosocial risk in the oil and gas industry," *Saf. Sci.*, vol. 62, pp. 98-106, 2014.
- [13] T. Cox, A. Griffiths, "The nature and measurement of work-related stress: theory and practice," p. 2005, 2005.
- [14] R. Johnstone, M. Quinlan, M. McNamara, M. M. Richard Johnstone, "OHS inspectors and psychosocial risk factors: Evidence from Australia," Saf. Sci., vol. 49, no. 4, pp. 547-557, 2011.
- [15] J. Hyld Pejtersen, T. Søndergå, R. Kristensen, V. Borg, J. Bue Bjorner, "The second version of the Copenhagen Psychosocial Questionnaire," *Scand. J. Public Health*, vol. 38, no. 3, pp. 8-24, 2010.
- [16] H. Hemingway, M. Marmot, "Clinical review Evidence based cardiology Psychosocial factors in the aetiology and prognosis of coronary heart disease: systematic review of prospective cohort studies," 1999.
- [17] T. Cox, A. Griffiths, "The nature and measurement of work-related stress: theory and practice," 2005.
- [18] M. Rus, A. B. Galbeaza, "Psychosocial Issues Related to the Work Environment," *Procedia Soc. Behav. Sci.*, vol. 149, pp. 831-836, 2014.
- [19] C. Di Tecco, A. Jain, A. Valenti, S. Iavicoli, S. Leka, "An evaluation of the impact of a policy-level intervention to address psychosocial risks on organisational action in Italy," *Saf. Sci.*, 2017.
- [20] J. Guadix, J. Carrillo-castrillo, L. Onieva, D. Lucena, "Strategies for psychosocial risk management in manufacturing ☆," *J. Bus. Res.*, vol. 68, no. 7, pp. 1475-1480, 2015.

- [21] R. Weissbrodt, D. Giauque, "Labour inspections and the prevention of psychosocial risks at work: A realist synthesis," *Saf. Sci.*, vol. 100, pp. 110-124, 2017.
- [22] P. Hohnen, P. Hasle, A. H. Jespersen, C. U. Madsen, "Hard Work in Soft Regulation : A Discussion of the Social Mechanisms in OHS Management Standards and Possible Dilemmas in the Regulation of Psychosocial Work Environment," *Nord. J. Work. Life Stud.*, vol. 4, no. 3, pp. 13-30, 2014.
- [23] S. M. Kyaw-myint, L. Strazdins, M. Clements, P. Butterworth, L. Gallagher, "A method of identifying healthbased benchmarks for psychosocial risks at work : A tool for risk assessment," *Saf. Sci.*, vol. 93, pp. 143-151, 2017.
- [24] A. Neylon, *et al.*, "A Global perspective on psychosocial risk factors for cardiovascular disease," *Prog. Cardiovasc. Dis.*, vol. 55, no. 6, pp. 574-581, 2013.
- [25] W. J. Cheng, Y. Cheng, "Minor mental disorders in Taiwanese healthcare workers and the associations with psychosocial work conditions," *J. Formos. Med. Assoc.*, vol. 116, no. 4, pp. 300-305, 2017.
- [26] J. S. Boschman, H. F. van der Molen, J. K. Sluiter, M. H. W. Frings-Dresen, "Psychosocial work environment and mental health among construction workers," *Appl. Ergon.*, vol. 44, no. 5, pp. 748–755, 2013.
- [27] I. J. S. Ribeiro, R. Pereira, I. V. Freire, B. G. de Oliveira, C. A. Casotti, and E. N. Boery, "Stress and quality of life among university students: A systematic literature review," *Heal. Prof. Educ.*, 2017.
- [28] L. I. V. Bergh, S. Leka, G. I. J. M. Zwetsloot, "Tailoring Psychosocial Risk Assessment in the Oil and Gas Industry by Exploring Specific and Common Psychosocial Risks," *Saf. Health Work*, pp. 18, 2017.
- [29] Á. J. Callejón-ferre, M. E. Montoya-garcía, J. Pérez-alonso, "The psychosocial risks of farm workers in southeast Spain," vol. 78, pp. 77-90, 2015.
- [30] Y. A. Jia, S. Rowlinson, M. Ciccarelli, "Climatic and psychosocial risks of heat illness incidents on construction site," *Appl. Ergon.*, vol. 53, pp. 25-35, 2016.
- [31] Cambridge Dictionary, "psychological Meaning in the Cambridge English Dictionary," 2018. [Online]. Available: https://dictionary.cambridge.org/dictionary/english/psychological. [Accessed: 13-Apr-2018].
- [32] English Oxford Dictionaries, "psychological | Definition of psychological in English by Oxford Dictionaries," 2018.
  [Online]. Available: https://en.oxforddictionaries.com/definition/psychological. [Accessed: 13-Apr-2018].
- [33] World Health Organization, "WHO | Mental health: a state of well-being," WHO, 2014.
- [34] D. Kunyk, M. Craig-Broadwith, H. Morris, R. Diaz, E. Reisdorfer, J. Wang, "Employers' perceptions and attitudes toward the Canadian national standard on psychological health and safety in the workplace: A qualitative study," 2016.
- [35] E. Uzman, "Basic psychological needs and psychological health in teacher candidates," *Procedia Soc. Behav. Sci.*, vol. 116, pp. 3629-3635, 2014.
- [36] C. S. Dewa, D. McDaid, S. L. Ettner, "An International Perspective on Worker Mental Health Problems: Who Bears the Burden and How are Costs Addressed?," *Can. J. Psychiatry*, vol. 52, no. 6, pp. 346-356, Jun. 2007.
- [37] K. Sanderson, G. Andrews, "Common Mental Disorders in the Workforce: Recent Findings From Descriptive and Social Epidemiology," *Can J Psychiatry*, vol. 51, no. 2, 2006.
- [38] K. Memish, A. Martin, L. Bartlett, S. Dawkins, K. Sanderson, "Workplace mental health: An international review of guidelines," *Prev. Med. (Baltim).*, vol. 101, pp. 213-222, 2017.
- [39] E. Schindeler, D. M. Reynald, "What is the evidence? Preventing psychological violence in the workplace," *Aggress. Violent Behav.*, vol. 36, no. July, pp. 25-33, 2017.
- [40] S. Braedley, P. Owusu, A. Przednowek, P. Armstrong, "We're told, 'Suck it up': Long-Term Care Workers' Psychological Health and Safety," *Ageing Int.*, 2017.
- [41] M. Corbière, J. Shen, M. Rouleau, C. S. Dewa, "A systematic review of preventive interventions regarding mental health issues in organizations," *Work*, vol. 33, no. 1, pp. 81–116, 2009.
- [42] N. Lanctôt, S. Guay, "The aftermath of workplace violence among healthcare workers: A systematic literature review of the consequences," *Aggress. Violent Behav.*, vol. 19, pp. 492–501, 2014.
- [43] C. Lloyd, D. P. Campion, "Occupational stress and the importance of self-care and resilience: focus on veterinary nursing," *Lloyd Campion Irish Vet. J.*, vol. 70, 2017.
- [44] A. Milner, H. Maheen, D. Currier, A. D. Lamontagne, "Male suicide among construction workers in Australia: a qualitative analysis of the major stressors precipitating death."
- [45] T.-Y. Pan, H. S. Fan, C. A. Owen, "The work environment of junior doctors: their perspectives and coping strategies.," *Postgrad. Med. J.*, p. postgradmedj-2016-134362, 2016.
- [46] L. Picco, et al., "Positive mental health among health professionals working at a psychiatric hospital."
- [47] D. T. N. Nguyen, S. T. T. Teo, S. L. Grover, N. P. Nguyen, "Psychological safety climate and workplace bullying in Vietnam's public sector," *Public Manag. Rev.*, vol. 19, no. 10, pp. 1415-1436, Nov. 2017.
- [48] E. S. Kim, L. D. Kubzansky, J. Soo, J. K. Boehm, "Maintaining Healthy Behavior: a Prospective Study of Psychological Well-Being and Physical Activity," Ann. Behav. Med., vol. 51, no. 3, pp. 337-347, 2017.