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E-B Environment - Behaviour Proceedings Journal

AicQoL2023Bangkok

https://www.amerabra.org

11th AMER International Conference on Quality of Life
Al Meroz Hotel, Bangkok, Thailand 28-30 Apr 2023

Revised Development of LEO/SKiPP on Worker's Mental Health Status

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Abstract
Occupational therapists usually use assessment and screening forms that can identify the problems faced by the person. In the field of return to work, the initial assessment is usually used to get an overview of a problem faced by the employee, both physically and mentally. This study explores the potential screening and reporting used using the Likelihood Scale of Environment & Occupation (LEO) or is also known as *Skala Kemungkinan Persekitaran & Pekerjaan* (SKiPP), related to local industry in Malaysia. The re-evaluation of the LEO/SKiPP screening is done to report the latest developments in the development of the instrument.

Keywords: Psychosocial risk at the workplace; Worker's mental health status; Likelihood Scale of Environment & Occupation; Occupational therapy intervention

DOI: https://doi.org/10.21834/ebpj.v8i24.4631

1.0 Introduction

The role of occupational therapists in evaluating and carrying out programs in psychosocial rehabilitation is vital. Occupational therapists usually use assessment and screening forms that can identify the problems faced by the person. In the field of return to work, the initial assessment is usually used to get an overview of a problem faced by the employee, both physically and mentally. Accordingly, a simple and accurate screening should save time and manpower. In previous studies, the author has published several articles on the development process of LEO/SKiPP. LEO, previously better known as the Environment & Occupation Likelihood Scale on workers' mental health status, is a screening form used to screen occupational factors and the workplace environment on the mental health status of workers at work. LEO contains a total of 10 questions, of which five questions are about the likelihood of environmental factors contributing to their mental health status and five more questions about the work activities themselves. LEO only measures factors related to a person's job. As a result of the knowledge transfer program conducted, very positive feedback has been received from all

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DOI: https://doi.org/10.21834/ebpj.v8i24.4631

participants. This edition is to report changes, suggestions, and improvement data obtained throughout the trial and sharing sessions with industry parties. This update is significant because it will be a reference both by the employees and by the employers themselves in running programs related to the mental health of employees in the future.

1.1 Psychosocial risk at the workplace

According to (CCOHS, 2023), psychosocial risk refers to the risk of an employee experiencing stress or psychological harm in the workplace, which may affect their mental and physical health, job performance, and overall well-being. There are many factors that contribute to this. The factors generally can be divided into two important scopes; work activities and working environment. Following are the examples of psychosocial risk factors:

1. Job demands: High workload, time pressure, and conflicting demands can lead to stress and burnout.
2. Control: Lack of control over one's work, such as not being able to make decisions or have input into how work is done, can lead to a sense of helplessness and stress.
3. Support: Lack of social support from colleagues or supervisors can lead to feelings of isolation and stress.
4. Organizational change: Rapid or frequent changes in work processes, job duties, or company structure can create uncertainty and stress.
5. Workplace relationships: Conflicts with colleagues or supervisors, bullying, or harassment can create a toxic work environment and lead to stress and anxiety.

It is crucial for employers to identify and manage psychosocial risk factors in the workplace to ensure the well-being and productivity of their employees. This can be done through risk assessments, employee surveys, training and education programs, and implementing policies and procedures to promote a healthy work environment. (SafeWork, 2023)

1.2 Psychosocial & workplace in Malaysia

The psychosocial issue at the workplace is a global issue. Every individual is vulnerable to psychosocial risk. It is important for every workplace to be able to identify and manage the symptom as soon as possible. As we know, the world just 'survived' the COVID-19 pandemic. There are many issues related to mental health that emerged from the pandemic. Malaysia also experiences the same, including workers who work in local sectors. A study by (Zainudeen, Abd Hamid, Azizuddin, et al. 2021) shows that many Malaysian experience mental health issues related to the pandemic. More worrying, the effects of this covid are also directly mixed with existing psychosocial effects. With regard to psychosocial risks at work, there are five issues that are usually related to this matter as follows:

1. Mental health: Mental health issues, including depression, anxiety, and stress, are common in Malaysia. Stigma and lack of access to mental health services are some of the barriers to receiving treatment.
2. Workplace stress: Workplace stress is prevalent in Malaysia due to long working hours, high job demands, and low job control. This can lead to burnout and negatively impact mental health.
3. Social isolation: Social isolation is becoming more prevalent in Malaysia, particularly among the elderly population. This can lead to loneliness and depression.
4. Domestic violence: Domestic violence is a serious issue in Malaysia, with women and children being the primary victims. This can lead to trauma and psychological harm.
5. Substance abuse: Substance abuse, particularly among youth, is becoming more prevalent in Malaysia. This can lead to addiction and mental health issues.

We are aware that the world today has passed the effects of a terrible pandemic. However, we should remember the continuous effects involving human health and mental well-being. It is essential for individuals, communities, and policymakers to address these psychosocial issues and promote mental health and well-being in Malaysia. This can be done through education and awareness campaigns, access to mental health services, and addressing social and economic factors that contribute to psychosocial issues (Latifah, 2017).

1.2 Method

In the previous publication, the details of LEO/SKiPP development has fully explained. The themes of the questions were derived from International Labor Law (ILO) (2006, 2009a, 2009b, 2012a, 2012b, 2012c, 2014 & 2015), characteristic of work by Cox et al. (2009) and WHO (2010 & 2017). It undergoes the standard process of instrument development. This review also commenced a few standard reviews involving online sessions with a panel of experts from the field of occupational health and safety in Malaysia. All these instruments are then embedded in a draft guideline of Psychosocial Risk Assessment and Management at the Workplace (PRisMA). The aim of this study is to explore the potential screening and reporting used using the Likelihood Scale of Environment & Occupation (LEO) or is also known as *Skala Kemungkinan Persekitaran & Pekerjaan* (SKiPP), related to local industry in Malaysia. The specific objectives were to re-evaluation the previous version of LEO/SKiPP screening and to report the latest developments in the development of the instrument. There were three important updates from this study which will be further discussed in the result section.

KTP program

All potential participants were contacted to attend the two days online session. Participants came from various Occupational Safety and Health (OSH) and other related fields. During the first day of this session, all participant undergoes the fundamental of the PRisMA draft, including the LEO/SKiPP protocol. On day two, they were required to conduct the survey among their office workers. A total of 39 respondents participated in the KTP followed by 125 for survey activity. The survey was conducted using an online platform. All data

was received, analyzed, and presented to all participants. The final session of KTP was on feedback and comment from participants. They require to give comments on 15 items, as stated in table 1 below.

1.3 Result

The results highlight three important updates received from participants, namely, feedback on the PRisMA draft, Workplace Psychosocial Risk Table /*Jadual Risiko Psikososial Tempat Kerja (JRPTK),* and survey results. Table 1 shows the feedback received from 39 respondents that attended the KTP program. The survey focused on 15 items, where items 1 to 14 were on the content of the draft PRisMA and item 15 on the agreement to conduct examination and coursework to get the certificate of a trained person. For items 1 to 14, respondents were asked to rank their agreement from 1: less agreed to 5: very agreed about content, suitability, and understanding. The average score received was above 4.0 and can be considered firmly accepted by the participants. For item 15, 29 out of 39 (74.4%) of the respondent agreed that it is necessary for a trained person to pass the examination and coursework assignment.

Table 1. KTP respondent feedback towards PRisMA

No.	Items	Components	Mean score
1	Introduction	Content	**4.4**
		Suitability	**4.4**
		Understanding	**4.2**
2	Aim	Content	**4.5**
		Suitability	**4.4**
		Understanding	**4.3**
3	Objective	Content	**4.5**
		Suitability	**4.4**
		Understanding	**4.3**
4	Flow chart	Content	**4.4**
		Suitability	**4.4**
		Understanding	**4.3**
5	Instrument	Content	**4.3**
		Suitability	**4.4**
		Understanding	**4.3**
6	Employer roles under PRisMA	Content	**4.4**
		Suitability	**4.4**
		Understanding	**4.4**
7	Employees' roles under PRisMA	Content	**4.4**
		Suitability	**4.3**
		Understanding	**4.3**
8	Assessment	Content	**4.4**
		Suitability	**4.4**
		Understanding	**4.4**
9	Scope	Content	**4.5**
		Suitability	**4.4**
		Understanding	**4.4**
10	Application	Content	**4.3**
		Suitability	**4.3**
		Understanding	**4.2**
11	Reporting	Content	**4.3**
		Suitability	**4.3**
		Understanding	**4.2**

12	Limitation	Content	**4.3**
		Suitability	**4.3**
		Understanding	**4.2**
13	Risk management	Content	**4.4**
		Suitability	**4.3**
		Understanding	**4.2**
14	Case scenario	Content	**4.4**
		Suitability	**4.4**
		Understanding	**4.3**
15	Agreed to PTP examination		**29.0**

In conclusion, the response received from all respondents were promising, and the PRisMA has to meet the industrial expectation and is ready to be implemented. Further promotion and educational campaigns should be started as soon as possible to promote the importance and usability of PRisMA in the industry.

1.3.2 Workplace Psychosocial Risk Table /Jadual Risiko Psikososial Tempat Kerja (JRPTK)

Table 3 shows the revised table of the Mental Health Hazard Hierarchy (MH3) (Masuri, 2021). This table is now renamed as Workplace Psychosocial Risk Table /*Jadual Risiko Psikososial Tempat Kerja (JRPTK)*. There were no changes in terms of data value and method of calculation. The Likelihood (L) value is entered in the vertical part, while the Severity (S) DASS21 scores are entered in the horizontal part. The risk value can be calculated and translated into a color form using the formula L X S. The calculation approach is similar to the HIRARC table (Masuri, 2020).

Table 2. Occupation & Environment cut-off value for the determination of likelihood

Q1-Q5: Cut-off value for Occupation	Likelihood (L)		DASS21				
			Normal	Mild	Moderate	Severe	Very Severe
5-8	No	1					Previously Yellow
8.1-12	Low	2					
12.1-16	Medium	3					
16.1-19.5	High	4					
>19.6	Very High	5					
Q6-Q10: Cut-off value for Environment	Likelihood (L)		DASS21				
			Normal	Mild	Moderate	Severe	Very Severe
5-6	No	1					Previously Yellow
6.1-10	Low	2					
10.1-15	Medium	3					
15.1-20	High	4					
>20.1	Very High	5					

Table 2, which was previously labeled as MH3, is now changed to JRPT. The main change for this table is a box color under the category 'No' X 'Very Severe.' In the previous figure, this bow was colored yellow. However, after reviewing and receiving input from a panel of experts, they propose it is changed to green. The significant reason for these changes can be defined according to the following mathematical equation:

No (0) X Very severe (5) = 0 value

With regards to the assessment score, the 'No' score for LEO/SKiPP has a value of 1; however, in the mathematical equation, it has no value or is equal to 0. The following score, 'Low,' will now have the actual value of 1, followed by two on 'Medium,' 3 on 'High,' and four on 'Very High.' This updated matrix should be used in calculating the psychosocial risk at the workplace.

1.3.3 Survey result.

A total of 125 respondents consisting of 46 males and 79 females, participated in an online survey on day two of KTP. Majority of the respondent were coming from other services (26.4%), administrative and support staff (21.6%), professional, scientific & technical (19.2%), civil servant & defense (18.4%), health & social work (6.4%), manufacturing (2.4%), construction, communication & information, education (1.6% each), and 0.8% from finance & insurance sector. Table 3 shows the overview of the selected (medium and high-risk)

respondents. Data received through the online survey was transformed into the table using Workplace Psychosocial Risk Calculator/*Kalkulator Risiko Psikososial Tempat Kerja (KRPTK)* manually. The color is a code that is usually used as an indicator for a plan of action.

From the survey conducted, respondent numbers 7 (4-5-4), 11 (5-5-4), 18 (4-5-4), and 89 (5-5-4) fall under the category that requires immediate action according to individual DASS21 scores. The DASS21 scores clearly show in red color. However, only respondent number 7 requires immediate action and modification for Occupation and environmental factors (HHH, HHH). Respondent number 11 requires immediate action for the environmental issue with a score of HHM. Interestingly, respondent number 120 and 46 require immediate action for Occupation and environment (MHM) even though the DASS21 score was (3-5-2), and MHM for respondent number 46.

Table 3. Survey feedback according to KTP respondent feedback: DASS21 severity, priority, and final score (medium and high-risk respondent).

RESPONDENT		3	7	9	11	12	18	25	35	37	46	48	49	56	58	81	85	86	89	110	114	115	116	119	120
DASS21 SEVERITY (S)	D	2	4	2	5	2	4	1	2	3	1	2	3	1	1	1	4	2	5	4	3	1	2	1	3
	A	3	5	3	5	1	5	2	3	3	3	4	4	3	3	3	1	3	5	3	3	3	3	3	5
	S	1	4	1	4	1	4	1	1	1	1	1	3	1	1	1	1	1	4	4	2	1	1	2	2

Workplace Psychosocial Risk Table /*Jadual Risiko Psikososial Tempat Kerja (JRPTK)*

PRIORITY BY ITEM SCORE	D-O	M	H	L	M	L	L	L	L	M	L	M	M	L	L	L	L	L	H	M	M	L	L	L	M
	A-O	M	H	L	M	L	M	M	M	M	M	H	H	M	M	L	L	L	H	M	M	M	M	L	H
	SO	L	H	L	M	L	L	L	L	L	L	L	M	L	L	L	L	L	M	M	M	L	L	L	M
	D-E	M	H	L	H	M	M	L	M	M	L	M	M	L	L	L	L	L	M	M	M	L	M	L	M
	A-E	M	H	L	H	L	M	M	M	M	M	H	H	M	M	M	L	L	M	M	M	M	M	M	H
	S-E	L	H	L	M	L	M	L	L	L	L	L	M	L	L	L	L	L	L	M	M	L	L	L	M
FINAL SCORE	DAS-OCCUPATION	M	H	L	M	L	L	L	L	M	L	M	M	L	L	L	L	L	H	M	M	L	L	L	M
		M	H	L	M	L	M	M	L	M	L	H	H	M	M	L	L	L	H	M	M	M	M	L	H
		L	H	L	M	L	L	L	L	L	L	L	M	L	L	L	L	L	M	M	M	L	L	L	M
	DAS-ENVIRONMENT	M	H	L	H	M	M	L	M	M	L	M	M	L	L	L	L	L	M	M	M	L	M	L	M
		M	H	L	H	L	M	M	M	M	M	H	H	M	M	M	L	L	M	M	M	M	M	M	H
		L	H	L	M	L	M	L	L	L	L	L	M	L	L	L	L	L	L	M	M	L	L	L	M

The overall result from the survey shows that a group of minorities require immediate medical assistance. By using this method, the employer will get a better picture related to their staff's mental health status and psychosocial risk at the workplace. A proper plan and intervention can be carried out aiming for a specific individual. This is more cost-effective, and accurate results can be achieved.

IMAGE Star rating system

Table 4 shows the result of the employer IMAGE star rating. Employers Practice Managing Psychosocial Risk in the Workplace: The IMAGE star rating system consistently scores for all 25 items ranging from 3.92 to 4.76. Employer number 1 falls under the category of Average (3 stars). Employer number 2 until 7 received Good and Excellent scores (4-5 stars rating). Details of 25 items show a mix respond and plans of action.

Table 4. Employer IMAGE Star rating

EMPLOYER CODE	1	2	3	4	5	6	7
EMPLOYER MEAN SCORE	3.93	4.32	4.6	4.28	4.76	3.96	4.00
EMPLOYER TOTAL SCORE	98	108	115	107	119	99	100

I – Inadequate	A	G	E	G	E	G	G
M – Moderate							
A – Average							
G – Good							
E – Excellent							

In conclusion, an employer who participated in this program shows high commitment and support toward their mental health status at the workplace. The details of the result have been discussed in the concluding session. However, their plan and action are needed for further feedback.

1.4 Discussion and conclusion

There is no denying that the psychological state of humans is constantly changing over time. There are too many environmental factors that are sometimes beyond the scope of the job that contributes to the current mental health status. However, this study developed a first-of-its-kind method where individual factors and their jobs are combined in one assessment. Future studies will focus on the development of norm tables based on industry. Undoubtedly, the type of job and industry factors are among the things that need attention. In addition, the process of transferring raw data into the calculator manually is also a process that can increase errors, especially when extensive data is involved. This study believes that digitizing this program will save time, money, and manpower. In addition, the chance of error can be immediately reduced.

1.7 Limitations

This latest study is one of the efforts to strengthen the study's findings and listen to industry practitioners' feedback. There are some shortcomings that this study would like to be mentioned here. Assessment involving human mental health often involves a complex and challenging process. As mentioned above, the risk factors may change over time. In order to obtain the accuracy of the results, the assessment may require frequent repeat assessments. In addition, the way information is entered into the analysis table makes it possible for errors to occur, especially involving large data. This study believes that both of these limitations will be resolved with the digitization of this program. Employees can conduct assessments more often, easily, and quickly. It will indirectly give valid and sensitive current results.

Acknowledgments

The highest appreciation goes to the Ministry of Higher Education Malaysia, Research Management Centre (RMC), Universiti Teknologi MARA (UiTM), Department of Occupational Safety & Health (DOSH), Centre for Occupational Therapy Studies, Faculty of Health Sciences, UiTM, KGB Local Services & Training Sdn. Bhd., Malaysia, Institute for Biodiversity and Sustainable Development (IBSD), UiTM, Occupational Performance and Behaviour Measurement Group (OPERA) RIG, Department of Basic Sciences, Faculty of Health Sciences, UiTM, to all panel experts as well as respondents who had participated in this study for their kind cooperation and to all staff of the Faculty of Health Sciences UiTM Puncak Alam for continuous support in staff research and development. Thank you to our local and international collaborators, the Ministry of Health Malaysia, PERKESO, Kolej Laksamana, Brunei, and Universiti Indonesia, Indonesia.

Paper Contribution to Related Field of Study

As mentioned earlier, this revised edition is an updated version of the previous publication. The findings of this recent study show significant changes in terms of definition and plan of action related to psychosocial management at the workplace. The recent matrix table is also open to constructive comments and criticism. Researchers desire to see the positive effects of the results of this study. Employers and employees in Malaysia should take proactive action related to psychosocial issues at the workplace. Everybody is welcome to share their input for further improvement.

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