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Original Research

The Use of the Oswestry Disability Index (ODI) and Nordic Body Map (NBM) in the Assessment of Low Back Pain Among Office Employees

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ABSTRACT

Low back pain is a common health problem experienced by office workers. Poor posture and ergonomic habits can result in low back pain. Low back pain can be assessed using the Oswestry Disability Index (ODI) and Nordic Body Map (NBM) questionnaires. Different assessment results for individual workers can lead to delays in early detection and treatment, which can reduce productivity. This study aims to determine the differences between the ODI and NBM in assessing low back pain (LBP) in office employees. The research method used was observational with a cross-sectional design. The respondents were office workers aged 25–60 years with no history of spinal trauma. The study included 120 participants, selected using purposive sampling. The assessment was carried out using ODI and NBM questionnaires. Furthermore, a chi-square test will be used to analyze the data obtained and determine the difference in the assessments of the two questionnaires. The results indicate no significant difference between the two questionnaires' ratings (p=0.142). Therefore, it can be concluded that the two questionnaires are similar in their assessment of the risk of low back pain in office workers, although several factors remain unassessed.

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Introduction

Low Back Pain (LBP) is one of the most common causes of work-related musculoskeletal disorders (WMSD). Most cases of LBP are not caused by abnormalities or any disease, but by poor body posture at work (Chowdhury *et al*., 2023). The global point prevalence of LBP sufferers was estimated to be more than 37% that are dominated by office workers. The number of LBP sufferers in a year among office workers is around 23% to 37% in a company. This is due to poor ergonomic sitting posture during long work periods (Tan *et al*., 2025). The prevalence rate of LBP among workers in America reached 25,7% (Yang *et al*., 2016). In occupational groups in Shanghai, the prevalence of LBP is 40% and is generally higher among teachers and garment workers (Yiengprugsawan *et al*., 2017). In Indonesia, data on national epidemiological studies of LBP patients are limited, but the incidence of LBP patients varied widely from 7,6% to 37,6% (Prayogo and Sutikno, 2021).

Every year, medical costs for treating lower back pain (LBP) are estimated to exceed $ 200 billion. Additionally, it affects working hours, productivity, and workers' compensation for those suffering from LBP. Approximately 90% of LBP cases stem from mechanical and non-specific disorders, making it difficult for healthcare services to determine the exact cause of the pain (Barros *et al*., 2019). Most treatments are conservative and are linked to signs of neurological impairment. The administration of analgesics to reduce pain, combined with various non-pharmacological therapies and diagnostic imaging such as radiography, computed tomography (CT), or magnetic resonance imaging (MRI, further escalates the overall cost of LBP treatment (Owen *et al*., 2020).

LBP sufferers tend to become chronic, which increases with age, and peaks around the ages of 35 to 55 years. Occupational sitting habits and poor ergonomic posture during daily activities for prolonged periods are the main factors contributing to LBP. This position causes excessive muscle contraction and repeated static loading of the body, leading to LBP characterized by predominantly lower back pain (Bontrup *et al*., 2019). Additionally, risk factors such as aging, lifestyle, and culture are increasingly prevalent. This condition is characterized by sudden, radiating pain to the lower back that lasts from a few days to four weeks, resulting in a decline in quality of life and work productivity. Lower back pain has a more complex etiology and is influenced by various factors, including social, psychological, and cultural elements, compared to other types of back pain (Orenius *et al*, 2022). Various risk factors are associated with acute lower back pain, including lack of physical activity, obesity, smoking, repetitive physical labor, poor posture, and psychosocial factors. Lifestyle patterns, smoking, and coffee consumption also serve as risk factors. While obesity is linked to a higher risk of acute lower back pain, unlike chronic cases, acute lower back pain is not clearly associated with occupational physical activity (Oertel *et al*., 2024)

LBP symptoms usually arise from nerves, muscles, and bones, including the back joints, but they can also radiate from other nerve areas (Allegri *et al*., 2016). The decision-making on LBP diagnosis requires an accurate clinical evaluation because LBP can also be caused by various psychological aspects such as anxiety, depression, and stress (Besen *et al*., 2015). A Magnetic Resonance Imaging (MRI) scan is sometimes needed to consider and confirm the diagnosis of LBP (Minkalis and Vining, 2015). Increased recurrence of LBP will affect workers' performance and productivity. In addition, decreased concentration and frequent absences may also create problems in the work environment (Grabovac *et al*., 2019; Suryadinata *et al*., 2019). LBP can be evaluated and quantified using questionnaires, one of which is the Oswestry Disability Index (ODI). This assessment is conducted by summing the scores for each question (Lee *et al*., 2017). Meanwhile, a qualitative pain assessment can be evaluated using the Nordic Body Map (NBM). Pain sensation is highly subjective, so measuring its level is difficult. In this case, workers can convey their pain-related sensations,

intensity, and location using the questionnaire (Mendoca *et al*., 2018).

These two questionnaires are often used by healthcare workers in assessing the severity of LBP in workers. Different methods can lead to different perceptions in making decisions. This will lead to delays in early detection, resulting in prompt treatment not being given appropriately. Therefore, the researcher wants to use both questionnaires to assess LBP complaints among office workers and examine their correlation.

Method

This research has received approval from the University of Surabaya Research Ethics Committee (No. 20/KE/I/2022). The method of this study was an observational, cross-sectional design. This research was conducted at a travel and tourism company in Seminyak, Kuta, Bali. The study sample consisted of office workers who met the inclusion and exclusion criteria. Inclusion criteria for the sample in this study were office workers who had worked for 5 years or more, aged 25-60 years, and had no history of spinal trauma. Meanwhile, the exclusion criteria were the questionnaire items that could not be analyzed. The sample consisted of employees at a company who met the inclusion criteria, using a purposive sampling method, yielding 120 employees. The instruments in this study were the Oswestry Disability Index (ODI) and Nordic Body Map (NBM) questionnaires.

The Oswestry Disability Index (ODI) questionnaire has 10 questions. Each question has 6 answer options that describe the worker's level of disability. Each question is scored 0-5, so the maximum score is 50. Then the previously obtained score will be converted to a percentage ranging from 0 to 100%. Furthermore, the scores will be categorized into minimal disability (0-20%), moderate disability (21-40%), severe disability (41-60%), crippled (61-80%), and bed-bound (81-100 %). This questionnaire was tested for validity ($p<0.05$) and reliability (Cronbach's Alpha>0.6). The ODI assessment score is adjusted according to the respondent's disability classification. Objective Criteria (1) No LBP complaints (minimum), ODI score ≤20%, and LBP complaints (Moderate) ODI score >20%.

The Nordic Body Map (NBM) questionnaire divides the body from the neck to the toes into numbered sections to estimate the level of LBP complaints experienced by workers. Each pain complaint will be divided into 4 levels, categorized on a 4-point Likert scale: 1 (no pain), 2 (moderate), 3 (painful), and 4 (very painful). The obtained score will then be classified as low risk (0-20), moderate (21-41), high risk (42-62), or very high risk (63-84). This questionnaire was tested for validity ($p<0.05$) and reliability (Cronbach's Alpha>0.6). The categorization of the NBM questionnaire results based on the total score is low (28-49), moderate (50-90), and high (91-122)

The collected data will be analyzed using the Chi-Square test to determine the differences between the two questionnaires. (Suryadinata *et al*., 2022).

Results and Discussion

Characteristics of respondents are classified according to gender, age, and job position. The respondents in this study consisted of 120 employees. The distribution characteristics of the studied sample are shown in Table 1. It also showed that the frequency distribution of respondents in the study was 74 (61.7%) male and 46 (38.3%) female. A majority of the respondents fell in the age group of 25 to 40 years, with 83 employees (69.2%), followed by the age group above 40 years, with 37 employees (30.8%). Meanwhile, the respondents with 5-10 years of experience accounted for 98 employees (81.7%), and those with over 10 years accounted for 22 employees (18.3%). In terms of division, the majority of respondents were from the front office division (36 employees, 30%), while 5 (4.2%) were from the e-commerce division.

Table 1. Distribution of Respondent Characteristics

Group	Classification	Total	Percentage (%)
Gender	Men	74	61.7
	Women	46	38.3
Age	25 – 40 years old	83	69.2
	More than 40 years old	37	30.8
Length of work	5 – 10 years	98	81.7
	More than 10 years	22	18.3
Job position	General Manager	7	5.8
	Front Office	36	30
	Accounting	33	27.5
	E-commerce	5	4.2
	Human Resource Development	13	10.8
	Reservation	26	21.7

Establishing a diagnosis of pain Establishing a diagnosis of pain complaints that are related to Low Back Pain (LBP) in workers is needed as early as possible. This also relates to early management and treatment, as well as workers' future careers (Cougot *et al*., 2015). Inaccurate early detection of LBP delays prevention and treatment, thereby decreasing worker performance and well-being (Martin *et al*., 2019). The Oswestry Disability Index (ODI) is frequently used to accurately and effectively assess low back pain (LBP) in improving patients' quality of life. Musculoskeletal issues occur across all age groups worldwide, with over 85% of people having experienced LBP. The primary cause of LBP in most cases is the intervertebral disc (IVD) of the spine (El-Hady *et al*., 2023). The most common degenerative changes in the spine are located at L4-5 and L5-S1, while they are least common at L2-3 (Ravikanth, 2020). Several studies have demonstrated a correlation between ODI scores and degenerative diseases (Middendorp *et al*., 2017). Assessment of ODI provides an overview of the ability to carry out daily activities, measured by complaints when performing activities such as using pain medication, lifting, walking, sitting, standing, personal care, sleeping, traveling, and social activities. However, the questionnaire has several weaknesses, which do not explain the exact location of pain and also do not give consideration to any personality disorders (Lee *et al*., 2017).

The Nordic Body Map (NBM) is a feasible instrument for assessing musculoskeletal (MSK) pain. The most common sites of MSK pain are the upper and lower back, shoulders, and hips. MSK pain affects routine work and daily activities in half of the workforce. The NBM is easily understood and can be used by adults experiencing pain (Horn *et al*., 2024). Improper work postures and positions can increase musculoskeletal complaints, particularly among workers who perform manual lifting in non-ergonomic positions. A study has demonstrated a correlation between inappropriate work posture and musculoskeletal issues (Dewi, 2020). Furthermore, various factors exacerbate musculoskeletal pain disorders, such as nutritional intake and physical activity (Lorensia *et al*., 2024; Suryadinata *et al*., 2025). In the construction sector, where age is a significant factor influencing the risk of musculoskeletal disorders, the use of the NBM enables early identification of complaints in specific body areas, thereby enabling the planning of more precise ergonomic positions (Ridwan *et al*., 2025).

The location and extent of pain have an important influence on the treatment phase, as they can help identify the factors that cause the pain. Body fat composition also affects the location and perception of pain in workers. The Nordic Body Map (NBM) questionnaire has provided this description. This makes the questionnaire easier to understand and easier to use in the community (Wong *et al*., 2017; Labbafinejad *et al*., 2017). The division of several anatomical parts and areas improves the questionnaire's validity. However, this questionnaire has several drawbacks: it does not assess pain intervals during activity or pain specifications, which may change, as there are no rules or limitations to differentiate between the first and second pain responses. This can lead to an undetected pain progression that is

experienced by workers from time to time (Cheisario and Wahyuningsih, 2022).

Table 2. Results of The Difference Test Between the Two Groups (Chi-Square Test)

Description		Oswestry Disability Index (ODI)		*p-value*
		Min	Mod	
Nordic Body Map (NBM)	Low	21	12	0.142
	Moderate	47	30	
	High	3	7	

Table 2 shows the results of the Oswestry Disability Index (ODI) and Nordic Body Map (NBM) questionnaires. In the Oswestry Disability Index assessment, 71 respondents (59,2%) had minimal complaints and 49 respondents (40,8%) had moderate complaints. Meanwhile, according to the Nordic Body Map assessment, 33 respondents (27,5%) had low risk and light complaints, 77 respondents (64,2%) had moderate complaints, and 10 respondents (8,3%) had high complaints. Furthermore, the data will be analyzed using the Chi-square test to determine differences between the two groups. In this study, the p-value was found 0,142 (p>0,05).

Various risk factors can also increase the risk of Low Back Pain (LBP), such as psychological stress and mental illness. Insecurities and high intensity at work can lead to excessive workloads and problems among co-workers. These various impacts may also cause mental health issues for workers. Everyone will try to manage stress, but the ability to cope with its intensity varies widely among individuals (Koinis *et al*., 2015). This relates to personal, social, and environmental habits in understanding and resolving stress. Stress management strategies can be used as a preventive solution for workers, thereby reducing the risk of disease. Primary prevention aims to prevent stress-causing factors, secondary prevention aims to reduce the severity and duration of symptoms, and tertiary prevention, which can be categorized as a rehabilitation process. In addition, an assessment of workers' ability to adjust to the workplace or the organization can be considered (Bhui *et al*., 2016). Initial screening for LBP risk can be conducted among office workers in Indonesia, allowing for the implementation of early preventive measures

Both questionnaires have their advantages and disadvantages, but in general, they remain interrelated in providing an overview of LBP complaints among workers. However, neither of them assessed the personality or psychological disorders of the workers. Therefore, we need additional instruments that can assess other influencing factors.

Conclusion

Both questionnaires have similarities in assessing and measuring the risk of Low Back Pain for office workers. However, several factors have not been assessed by either questionnaire.

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Conflict of Interest

The author declares that there is no conflict of interest.

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Introduction

Low Back Pain (LBP) is one of the most common causes of work-related musculoskeletal disorders (WMSD). Most cases of LBP are not caused by abnormalities or any disease, but by poor body posture at work (Chowdhury *et al*., 2023). The global point prevalence of LBP sufferers was estimated to be more than 37% that are dominated by office workers. The number of LBP sufferers in a year among office workers is around 23% to 37% in a company. This is due to poor ergonomic sitting posture during long work periods (Tan *et al*., 2025). The prevalence rate of LBP among workers in America reached 25,7% (Yang *et al*., 2016). In occupational groups in Shanghai, the prevalence of LBP is 40% and is generally higher among teachers and garment workers (Yiengprugsawan *et al*., 2017). In Indonesia, data on national epidemiological studies of LBP patients are limited, but the incidence of LBP patients varied widely from 7,6% to 37,6% (Prayogo and Sutikno, 2021).

Every year, medical costs for treating lower back pain (LBP) are estimated to exceed $ 200 billion. Additionally, it affects working hours, productivity, and workers' compensation for those suffering from LBP. Approximately 90% of LBP cases stem from mechanical and non-specific disorders, making it difficult for healthcare services to determine the exact cause of the pain (Barros *et al*., 2019). Most treatments are conservative and are linked to signs of neurological impairment. The administration of analgesics to reduce pain, combined with various non-pharmacological therapies and diagnostic imaging such as radiography, computed tomography (CT), or magnetic resonance imaging (MRI, further escalates the overall cost of LBP treatment (Owen *et al*., 2020).

LBP sufferers tend to become chronic, which increases with age, and peaks around the ages of 35 to 55 years. Occupational sitting habits and poor ergonomic posture during daily activities for prolonged periods are the main factors contributing to LBP. This position causes excessive muscle contraction and repeated static loading of the body, leading to LBP characterized by predominantly lower back pain (Bontrup *et al*., 2019). Additionally, risk factors such as aging, lifestyle, and culture are increasingly prevalent. This condition is characterized by sudden, radiating pain to the lower back that lasts from a few days to four weeks, resulting in a decline in quality of life and work productivity. Lower back pain has a more complex etiology and is influenced by various factors, including social, psychological, and cultural elements, compared to other types back pain (Orenius *et al*, 2022). Various risk factors are associated with acute lower back pain, including lack of physical activity, obesity, smoking, repetitive physical labor, poor posture, and psychosocial factors. Lifestyle patterns, smoking, and coffee consumption also serve as risk factors. While obesity is linked to a higher risk of acute lower back pain, unlike chronic cases, acute lower back pain is not clearly associated with occupational physical activity (Oertel *et al*., 2024)

LBP symptoms usually arise from nerves, muscles, and bones, including the back joints, but they can also radiate from other nerve areas (Allegri *et al*., 2016). The decision-making on LBP diagnosis requires an accurate clinical evaluation because LBP can also be caused by various psychological aspects such as anxiety, depression, and stress (Besen *et al*., 2015). A Magnetic Resonance Imaging (MRI) scan is sometimes needed to consider and confirm the diagnosis of LBP (Minkalis and Vining, 2015). Increased recurrence of LBP will affect workers' performance and productivity. In addition, decreased concentration and frequent absences may also create problems in the work environment (Grabovac *et al*., 2019; Suryadinata *et al*., 2019). LBP can be evaluated and quantified using questionnaires, one of which is the Oswestry Disability Index (ODI). This assessment is conducted by summing the scores for each question (Lee *et al*., 2017). Meanwhile, a qualitative pain assessment can be evaluated using the Nordic Body Map (NBM). Pain sensation is highly subjective, so measuring its level is difficult. In this case, workers can convey their pain-related sensations,

intensity, and location using the questionnaire (Mendoca *et al.*, 2018).

These two questionnaires are often used by healthcare workers in assessing the severity of LBP in workers. Different methods can lead to different perceptions in making decisions. This will lead to delays in early detection, resulting in prompt treatment not being given appropriately. Therefore, the researcher wants to use both questionnaires to assess LBP complaints among office workers and examine their correlation.

Method

This research has received approval from the University of Surabaya Research Ethics Committee (No. 20/KE/I/2022). The method of this study was an observational, cross-sectional design. This research was conducted at a travel and tourism company in Seminyak, Kuta, Bali. The study sample consisted of office workers who met the inclusion and exclusion criteria. Inclusion criteria for the sample in this study were office workers who had worked for 5 years or more, aged 25-60 years, and had no history of spinal trauma. Meanwhile, the exclusion criteria were the questionnaire items that could not be analyzed. The sample consisted of employees at a company who met the inclusion criteria, using a purposive sampling method, yielding 120 employees. The instruments in this study were the Oswestry Disability Index (ODI) and Nordic Body Map (NBM) questionnaires.

The Oswestry Disability Index (ODI) questionnaire has 10 questions. Each question has 6 answer options that describe the worker's level of disability. Each question is scored 0-5, so the maximum score is 50. Then the previously obtained score will be converted to a percentage ranging from 0 to 100%. Furthermore, the scores will be categorized into minimal disability (0-20%), moderate disability (21-40%), severe disability (41-60%), crippled (61-80%), and bed-bound (81-100 %). This questionnaire was tested for validity ($p<0.05$) and reliability (Cronbach's Alpha>0.6). The ODI assessment score is adjusted according to the respondent's disability classification. Objective Criteria (1) No LBP complaints (minimum), ODI score ≤20%, and LBP complaints (Moderate) ODI score >20%.

The Nordic Body Map (NBM) questionnaire divides the body from the neck to the toes into numbered sections to estimate the level of LBP complaints experienced by workers. Each pain complaint will be provided into 4 levels, categorized on a 4-point Likert scale: 1 (no pain), 2 (moderate), 3 (painful), and 4 (very painful). The obtained score will then be classified as low risk (0-20), moderate (21-41), high risk (42-62), or very high risk (63-84). This questionnaire was tested for validity ($p<0.05$) and reliability (Cronbach's Alpha>0.6). The categorization of the NBM questionnaire results based on the total score is low (28-49), moderate (50-90), and high (91-122)

The collected data will be analyzed using the Chi-Square test to determine the differences between the two questionnaires. (Suryadinata *et al.*, 2022).

Results and Discussion

Characteristics of respondents are classified according to gender, age, and job position. The respondents in this study consisted of 120 employees. The distribution characteristics of the studied sample are shown in Table 1. It also showed that the frequency distribution of respondents in the study was 74 (61.7%) male and 46 (38.3%) female. A majority of the respondents fell in the age group of 25 to 40 years, with 83 employees (69.2%), followed by the age group above 40 years, with 37 employees (30.8%). Meanwhile, the respondents with 5-10 years of experience accounted for 98 employees (81.7%), and those with over 10 years accounted for 22 employees (18.3%). In terms of division, the majority of respondents were from the front office division (36 employees, 30%), while 5 (4.2%) were from the e-commerce division.

Table 1. Distribution of Respondent Characteristics

Group	Classification	Total	Percentage (%)
Gender	Men	74	61.7
	Women	46	38.3
Age	25 – 40 years old	83	69.2
	More than 40 years old	37	30.8
Length of work	5 – 10 years	98	81.7
	More than 10 years	22	18.3
Job position	General Manager	7	5.8
	Front Office	36	30
	Accounting	33	27.5
	E-commerce	5	4.2
	Human Resource Development	13	10.8
	Reservation	26	21.7

Establishing a diagnosis of pain Establishing a diagnosis of pain complaints that are related to Low Back Pain (LBP) in workers is needed as early as possible. This also relates to early management and treatment, as well as workers' future careers (Cougot *et al*., 2015). Inaccurate early detection of LBP delays prevention and treatment, thereby decreasing worker performance and well-being (Martin *et al*., 2019). The Oswestry Disability Index (ODI) is frequently used to accurately and effectively assess low back pain (LBP) in improving patients' quality of life. Musculoskeletal issues occur across all age groups worldwide, with over 85% of people having experienced LBP. The primary cause of LBP in most cases is the intervertebral disc (IVD) of the spine (El-Hady *et al*., 2023). The most common degenerative changes in the spine are located at L4-5 and L5-S1, while they are least common at L2-3 (Ravikanth, 2020). Several studies have demonstrated a correlation between ODI scores and degenerative diseases (Middendorp *et al*., 2017). Assessment of ODI provides an overview of the ability to carry out daily activities, measured by complaints when performing activities such as using pain medication, lifting, walking, sitting, standing, personal care, sleeping, traveling, and social activities. However, the questionnaire has several weaknesses, which do not explain the exact location of pain and also do not give consideration to any personality disorders (Lee *et al*., 2017).

The Nordic Body Map (NBM) is a feasible instrument for assessing musculoskeletal (MSK) pain. The most common sites of MSK pain are the upper and lower back, shoulders, and hips. MSK pain affects routine work and daily activities in half of the workforce. The NBM is easily understood and can be used by adults experiencing pain (Horn *et al*., 2024). Improper work postures and positions can increase musculoskeletal complaints, particularly among workers who perform manual lifting in non-ergonomic positions. A study has demonstrated a correlation between inappropriate work posture and musculoskeletal issues (Dewi, 2020). Furthermore, various factors exacerbate musculoskeletal pain disorders, such as nutritional intake and physical activity (Lorensia *et al*., 2024; Suryadinata *et al*., 2025). In the construction sector, where age is a significant factor influencing the risk of musculoskeletal disorders, the use of the NBM enables early identification of complaints in specific body areas, thereby enabling the planning of more precise ergonomic positions (Ridwan *et al*., 2025).

The location and extent of pain have an important influence on the treatment phase, as they can help identify the factors that cause pain. Body fat composition also affects the location and perception of pain in workers. The Nordic Body Map (NBM) questionnaire has provided this description. This makes the questionnaire easier to understand and easier to use in the community (Wong *et al*., 2017; Labbafinejad *et al*., 2017). The division of several anatomical parts and areas improves the questionnaire's validity. However, this questionnaire has several drawbacks: it does not assess pain intervals during activity or pain specifications, which may change, as there are no rules or limitations to differentiate between the first and second pain responses. This can lead to an undetected pain progression that is

experienced by workers from time to time (Cheisario and Wahyuningsih, 2022).

Table 2. Results of The Difference Test Between the Two Groups (Chi-Square Test)

Description		Oswestry Disability Index (ODI)		*p-value*
		Min	Mod	
Nordic Body Map (NBM)	Low	21	12	0.142
	Moderate	47	30	
	High	3	7	

Table 2 shows the results of the Oswestry Disability Index (ODI) and Nordic Body Map (NBM) questionnaires. In the Oswestry Disability Index assessment, 71 respondents (59,2%) had minimal complaints and 49 respondents (40,8%) had moderate complaints. Meanwhile, according to the Nordic Body Map assessment, 33 respondents (27,5%) had low risk and light complaints, 77 respondents (64,2%) had moderate complaints, and 10 respondents (8,3%) had high complaints. Furthermore, the data will be analyzed using the Chi-square test to determine differences between the two groups. In this study, the p-value was found 0,142 (p>0,05).

Various risk factors can also increase the risk of Low Back Pain (LBP), such as psychological stress and mental illness. Insecurities and high intensity at work can lead to excessive workloads and problems among co-workers. These various impacts may also cause mental health issues for workers. Everyone will try to manage stress, but the ability to cope with its intensity varies widely among individuals (Koinis *et al*., 2015). This relates to personal, social, and environmental habits in understanding and resolving stress. Stress management strategies can be used as a preventive solution for workers, thereby reducing the risk of disease. Primary prevention aims to prevent stress-causing factors, secondary prevention aims to reduce the severity and duration of symptoms, and tertiary prevention, which can be categorized as a rehabilitation process. In addition, an assessment of workers' ability to adjust to the workplace or the organization can be considered (Bhui *et al*., 2016). Initial screening for LBP risk can be conducted among office workers in Indonesia, allowing for the implementation of early preventive measures

Both questionnaires have their advantages and disadvantages, but in general, they remain interrelated in providing an overview of LBP complaints among workers. However, neither of them assessed the personality or psychological disorders of the workers. Therefore, we need additional instruments that can assess other influencing factors.

Conclusion

Both questionnaires have similarities in assessing and measuring the risk of Low Back Pain for office workers. However, several factors have not been assessed by either questionnaire.

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Conflict of Interest

The author declares that there is no conflict of interest.

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