A Quasi-Experimental Study: Can Self-Leadership Training and Emotional Intelligence Mentoring Lower Burnout Rates in Hospital Nurses?

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Abstract

BACKGROUND: Burnout syndrome is found in health workers who are directly related to services and a high prevalence in care because they always experience stressful condition in workplace. Hence, this condition needs attention from the hospitals. One of the efforts to lower the burnout is self-leadership and emotional intelligence mentoring.

AIM: This study aimed to analyzing the effect of self-leadership and emotional intelligence mentoring as an effort to lower the burnout rates of nurses

METHODS: This study used a quantitative approach with a quasi-experimental method using a pretest-posttest. The population of this study was nurses at RSUD Noongan and RSU GMIM Bethesda Tomohon with a total of 344 nurses. Sampling was carried out using simple random sampling. And based on the sampling, a sample of 159 nurses was obtained. This study used the Maslach Burnout Inventory questionnaire on nurses to see the level of fatigue experienced before the intervention was given and the Revised Self-Leadership Questionnaire was adapted to measure nurses’ self-leadership and a questionnaire to see the knowledge of research subjects (nurses) related to emotional intelligence. Data analysis methods used in this study were a structural equation modeling using partial least squares (PLSs).

RESULTS: The results show that before the interventions, there was an effect of self-leadership on burnout (0.000 < 0.05) and there is an effect of emotional intelligence on burnout (0.001 < 0.05) at GMIM Bethesda Hospital. Furthermore, before the interventions, there was an effect of self-leadership on burnout (0.000 < 0.05) at Noongan Hospital. Furthermore, after the interventions, there is an effect of self-leadership on burnout (0.000 < 0.05) and there is an effect of emotional intelligence on burnout (0.001 < 0.05) at Noongan Hospital. Additionally, after the interventions, there is an effect of self-leadership on burnout (0.000 < 0.05) and there is an effect of emotional intelligence on burnout (0.001 < 0.05) at Noongan Hospital.

CONCLUSIONS: It can be seen that self-leadership and emotional intelligence have an effect on reducing the burnout levels of nurses at GMIM Bethesda Hospital and Noongan Hospital.

Introduction

Burnout on service provider staff is increasingly seen as a problem in the field of social service provider work. Burnout syndrome is found in health workers who are directly related to services and a high prevalence in care because they always experience stressful work situations, working in direct contact with patients who have different levels of disease. When compared to other professions, nurses have a higher burnout rate. However, prolonged stress condition that results in job burnout is a job risk for everyone in health services [1].

A study by Tremolada et al. revealed that out of 220 doctors and 250 nurses in Italy, as many as 42.2% of nurses and 83.3% of doctors experienced burnout syndrome caused by an external workload, high working hours, or long night shifts [2]. These results show that the medical field indeed has some special stresses. In nurses, problems such as working in an intensive care environment, excessive strenuous work, providing care for patients with serious illnesses, or low life expectancy have caused moral stress that can affect nurses’ job satisfaction.

Nantsupawat et al. reported that 32% of nurses experienced high emotional exhaustion, 18% high depersonalization, and 35% low personal achievement [3]. In the same study, it was found that 16% of nurses received a poor assessment of the quality of their services, 5% were reported on patient falls incidence, 11% were reported on medication errors, and 14% reported on nosocomial infections incidence. This study concludes that burnout is associated with an increase in negative reporting of services to patients.

Nurses are more likely to experience burnout due to the nature of their work; with multiple tasks,
greater closeness and more time spent with patients and their relatives, as well as the emotional demands of their work [4]. In recent years, several health studies in Indonesia have begun to focus on nurses' fatigue levels. A study conducted in Yogyakarta found that 40 out of 55 nurses at RSJ Grhasia experienced stress and work fatigue. Another case of burnout was found in Khotimah in a hospital in Pekalongan with as many as 65.9% of nurses experiencing burnout that was caused by the working environment and psychological conditions of nurses [5]. Furthermore, several studies conducted in North Sulawesi also showed similar results. A study by Mundung et al. found that 32 out of 53 nurses experienced moderate work stress, while 11 out of 53 nurses experienced severe work stress [6].

Bektas and Peresadko's study suggested that the level of burnout can be influenced by individual and organizational efforts [7]. Leadership is one of the organizational effort factors that can affect the level of stress or burnout and (eventually), the implementation of patient safety goals in hospitals, while leadership style can affect the burnout rates of nurses. Organizational characteristics and behavior of organizational leaders will empower nurses to use their knowledge, behavior, and skills to control their work; increase organizational commitment, job satisfaction, and quality of care; increase trust in management; and reduce nurses' burnout rates [8]. Based on this argument, it is clear that leadership is a key factor to create empowering and positive working conditions.

One leadership style that is currently the center of attention is self-leadership. Self-leadership was originally conceptualized as a substitute for formal forms of leadership. Self-leadership is defined as a process of influencing oneself [9]. It can be highlighted that the concept of self-leadership combines the paradigm of the mind and system where the self is likened to a part of a system as an inseparable whole [10]. Based on this description, the self-leadership leadership style can be said as one of the individual efforts that can reduce burnout rates.

Self-leadership is the path to an effective form of leadership over others. In a collaborative and decentralized work climate, this leadership style trains individuals to be self-leaders who are able to set priorities, take initiatives, and solve problems – which become very important [11]. The importance of the self-leadership leadership style is further reaffirmed so that everyone is able to identify their strengths, weaknesses, and values independently to build positive dimensions that have been existed in their life rather than working to overcome their weaknesses.

Studies on self-leadership, especially on nurses in Indonesia, have not been widely carried out. Studies on leadership still focus on leaders in a managerial context, namely, the chief/head of the room, while the leadership context of the nurses themselves has not received special attention. More specifically in Sulawesi Utara, out of 15 studies discussing several leadership styles since 2018, only six studies have linked transformational leadership styles with work stress, burnout, and turnover intention of nurses. Lumondo et al. study found that leadership style was related to nurses' burnout rates [12]. Similar results were found by Mamonto et al. who suggested that of several things that caused nurses' work stress, the leadership style is the most dominant factor that gives pressure on nurses' work [13].

Furthermore, burnout rates experienced by nurses indirectly require nurses to withstand the negative effects of burnout, especially those related to nurses' emotions. Increasing the ability for a nurse to understand her own emotions, understand and assess the emotions of the patient or client, and respond appropriately to their emotions can reduce nurses' burnout. Having an emotionally intelligent nurse can help provide a safe environment for patients, improve the quality of care, and reduce the work pressure experienced by nurses themselves [14].

The inverse relationship between emotional intelligence and burnout has a strong position among staff who have direct contact with patients [15], [16]. Emotional intelligence has also been shown to be a significant predictor of low burnout rates [17]. More specifically, low levels of emotional exhaustion and self-achievement show a moderating effect on the relationship between stress and burnout [18], [19], [20]. Individuals have high emotional intelligence because their ability to identify and understand their emotions and utilize emotional improvement strategies can reduce the impact of work stress, thereby protecting them from burnout.

Based on this explanation, the researchers are interested in analyzing the effect of self-leadership and emotional intelligence mentoring as an effort to lower the burnout rates of nurses.

**Methods**

This study used a quantitative approach with a quasi-experimental method using a pretest-posttest. The population of this study was nurses at RSUD Noongan and RSU GMIM Bethesda Tomohon with a total of 344 nurses. Sampling was carried out using simple random sampling by Slovin. The formula is:

\[
n = \frac{N}{1 + \frac{N(d)^2}{1}}
\]

**Description:**
- \( n \) = Minimal sample
- \( N \) = Population
- \( d \) = Error margin (0.05).
And based on the sampling, a sample of 159 nurses was obtained.

This study used the Maslach Burnout Inventory questionnaire on nurses to see the level of fatigue experienced before the intervention was given and the revised self-leadership questionnaire was adapted to measure nurses’ self-leadership and a questionnaire to see the knowledge of research subjects (nurses) related to emotional intelligence.

The research group was divided into three groups. The first intervention group was given self-leadership training with training methods. The second intervention group was given emotional intelligence mentoring with group counseling methods. Finally, the third intervention group was given self-leadership training and emotional intelligence development interventions.

The difference of the intervention is the 3rd group was given two interventions and the others group only one intervention, either self-leadership training or emotional intelligence development interventions.

We use SEM because it involves the correction of the variables, so that the last have more comprehensive results. Furthermore, we use T-test to evaluate the difference before and after the intervention and the effect of the variables. The T-test we used to know the difference before and after intervention each hospital. This is how we use this test:

<table>
<thead>
<tr>
<th>Rсуд Noongan</th>
<th>RSU GMIM Bethesda Tomohon</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st group</td>
<td>1st group</td>
</tr>
<tr>
<td>2nd group</td>
<td>2nd group</td>
</tr>
<tr>
<td>3rd group</td>
<td>3rd group</td>
</tr>
</tbody>
</table>

This study was approved by Health Research Ethics Committee, Faculty of Public Health, Universitas Hasanuddin, Indonesia, recommendation number: 721/UNH.14.7.1/PT.00/2020

## Results

The results show that:

Based on Table 1, each intervention group at GMIM Bethesda Hospital, had the value of p = 0.001 (p < 0.05). Likewise each intervention group at Noongan Hospital had value of p = 0.001 (p < 0.05). Hence, it can be said that there are differences in burnout levels in nurses before and after the interventions.

Based on Table 2, it can be seen that at GMIM Bethesda Hospital before the interventions, there was an effect of self-leadership on burnout (0.000 < 0.05) and there was an effect of emotional intelligence on burnout (0.001 < 0.05).

Table 2 also shows that at GMIM Bethesda Hospital after the interventions, there is an effect of self-leadership on burnout (0.000 < 0.05) and there is an effect of emotional intelligence on burnout (0.001 < 0.05).

Besides, it can also be seen that at Noongan Hospital before the interventions, there was an effect of self-leadership on burnout (0.000 < 0.05) and there is an effect of emotional intelligence on burnout (0.000 < 0.05).

Furthermore, it can also be seen that at Noongan Hospital after the interventions, there is an effect of self-leadership on burnout (0.000 < 0.05) and there is an effect of emotional intelligence on burnout (0.001 < 0.05).

The magnitude of the contribution of each variable is presented in the following figures:

Figure 1 shows that before the interventions at GMIM Bethesda Hospital, the contribution effect of the self-leadership variable on burnout was 4.336 and the rest was affected by other variables outside the self-leadership indicator. It means that self-leadership had a contribution to reducing the burnout by 43.36% and 56.64% which was affected by other variables that were not examined in this study.

Besides, it can also be seen that the contribution effect of the emotional intelligence variable on burnout was 3.336 and the rest was affected by other variables outside the emotional intelligence indicator. It means that emotional intelligence had a contribution to reducing the burnout by 33.36% and 66.64% which was affected by other variables that were not examined in this study.

Figure 2 shows that after the interventions at GMIM Bethesda Hospital, the contribution effect of the self-leadership variable on burnout is 4.552 and the rest is affected by other variables outside the

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**Table 1**: The effect of self-leadership training and emotional intelligence mentoring interventions on nurse burnout levels

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Variable</th>
<th>Test</th>
<th>Average score</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bethesda 1</td>
<td>Pre</td>
<td>73.41</td>
<td>83.59</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>80.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noongan 1</td>
<td>Pre</td>
<td>73.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>83.43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bethesda 2</td>
<td>Pre</td>
<td>73.38</td>
<td></td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>84.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Noongan 2</td>
<td>Pre</td>
<td>73.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>82.13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 2**: The effect of intervariable before and after the Interventions at GMIM Bethesda Hospital and Noongan Hospital

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Variable</th>
<th>X</th>
<th>Y</th>
<th>The effect of intervariable before intervention (p-value)</th>
<th>The effect of intervariable after intervention (p-value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSU GMIM Bethesda</td>
<td>Self-leadership</td>
<td></td>
<td>Burnout</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Emotional intelligence</td>
<td></td>
<td>Burnout</td>
<td>0.0001</td>
<td>0.0001</td>
</tr>
<tr>
<td>RSUD Noongan</td>
<td>Self-leadership</td>
<td></td>
<td>Burnout</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Emotional intelligence</td>
<td></td>
<td>Burnout</td>
<td>0.000</td>
<td>0.0001</td>
</tr>
</tbody>
</table>
self-leadership indicator. Besides, it can also be seen that the contribution effect of the emotional intelligence variable on burnout is 3.726 and the rest is affected by other variables outside the emotional intelligence indicator.

Figure 3 shows that before the interventions at Noongan Hospital, the contribution effect of the self-leadership variable on burnout was 4.876 and the rest was affected by other variables outside the self-leadership indicator. Besides, it can also be seen that the contribution effect of the emotional intelligence variable on burnout was 4.171 and the rest was affected by other variables outside the emotional intelligence indicator.

Figure 4 shows that after the interventions at Noongan Hospital, the contribution effect of the self-leadership variable on burnout is 4.609 and the rest is affected by other variables outside the self-leadership indicator. Besides, it can also be seen that the contribution effect of the emotional intelligence variable on burnout is 4.101 and the rest is affected by other variables outside the emotional intelligence indicator.

Discussion

In this study, self-leadership was proven to have an effect on reducing the burnout rates of nurses at RSUD Noongan and RSU GMIM Bethesda Tomohon. This shows that the higher the self-leadership, the lower the burnout rates will be. This can be seen on the result about before and after the intervention. The statistical result showed \( p = 0.001 \) (\( p < 0.05 \)) which means that there are differences in burnout levels in nurses before and after the interventions of self-leadership. Also, the SEM test showed that self-leadership contributed to reducing the burnout by 43.36%.

Self-leadership is defined as the process of influencing oneself to build self-direction and self-motivation, especially to do and complete important and complex tasks and jobs. High self-leadership is characterized by having a clear vision of life, being able to manage time, self-discipline, being able to have high motivation, continuing to learn to develop themselves, and having perseverance in realizing their goals [21]. With good self-leadership, nurses at RSUD Noongan
and RSU GMIM Bethesda Tomohon will have a clear vision of life, able to manage time, self-discipline, able to have high motivation, continue to learn to develop themselves, and have perseverance. With a clear vision of life and high motivation, nurses at RSUD Noongan and RSU GMIM Bethesda Tomohon will be encouraged to do their work sincerely so as to minimize the occurrence of burnout due to work fatigue.

The basic assumption behind self-leadership is that individuals are said to be responsible and able to build and develop initiatives if there is no pressure from superiors and external parties so that there still is awareness to do so. They can monitor and control their own behavior. Thus, when a nurse has self-leadership, they will have initiative and high work motivation even though they are faced with work pressure.

Self-leadership is defined as an understanding of self-influence that tends to direct a person to an action in doing work that is naturally motivating. Lambert and Steward also found that participants (nurses) showed the building teamwork and leadership skill increase 25% after the interventions they did [22]. Essentially, self-leadership is the ability to control one’s desire. By controlling desire, the ability to control oneself becomes easy. In other words, self-leadership is the ability to control desire, specifically the ability to coordinate intentions, thoughts, and actions so that the desire that has been given by God can be channeled properly [21].

Furthermore, in this study, emotional intelligence was proven to have an effect on reducing the burnout rates of nurses at RSUD Noongan and RSU GMIM Bethesda Tomohon. This shows the higher emotional intelligence, the decrease in burnout rates is also higher.

Emotional intelligence is the ability to monitor and control one's own feelings and those of others and use these feelings to guide thoughts and actions, thus emotional intelligence is indispensable for success at work in terms of producing outstanding work performance [23]. Therefore, people who are able to have emotional intelligence will be able to face challenges and be fully responsible, productive, optimistic in dealing with, and solving problems – in which, these things are needed in working relationships.
An optimistic and responsible attitude will make a person to have a different view of the challenges faced in the world of work, including for a nurse who must remain optimistic when dealing with patients with their respective complaints which often cause burnout.

Bhanugopan and Fish has proposed a theory that workers affected by burnout will experience mental fatigue, emotional exhaustion, loss of commitment, and decreased self-motivation over time [24]. Furthermore, Szczygiel and Mikolajzak found that emotional intelligence training could be implemented to prevent job burnout [25]. However, with emotional intelligence – where a person is able to be optimistic in dealing with and solving problems, the burnout rates can be suppressed.

Furthermore, based on the results of the research, it is known that simultaneously self-leadership and intelligence are proven to have a significant effect on decreasing the burnout rate. Based on the results of this research, self-leadership and intelligence have an effect of 92.8% on the level of spirituality of nurses at GMIM Bethesda Hospital and Noongan Hospital.

Self-leadership is useful for building self-regulation, social cognitive, self-management, control management, and intrinsic motivation – as well as for producing commitment and independence, creativity and innovation, trust, cooperation, positive influence and job satisfaction, psychological empowerment, and self-efficacy [26]. Besides its ability to reduce the workload of controlling subordinates, self-leadership also enables individuals at any level in the organization to continue to perform well by being able to find solutions to the problems they face. Hence, when nurses have good self-leadership – then when they are faced with a heavy workload, they will try to find solutions to these problems. This will eventually reduce the level of burnout that exists.

With intelligence, ones have the ability to control and push themselves, remain diligent, and motivate themselves. Hence, they will have the right direction toward their work. Emotional intelligence in employees is used to feel, understand, and regulate every emotion that exists so they can still complete the tasks assigned by their superiors in any condition and situation. Therefore, emotional intelligence plays a very important role in determining the emotions of employees to be able to be professional in carrying out their duties. Emotional intelligence can be a control in carrying out activities and job demands for individuals.
The research of Sanjaya reveals that emotional intelligence can regulate employee work stress. Employees with good emotional intelligence, besides being able to improve their performance – are also able to reduce work stress [27]. Ones’ ability to deal with burnout is related to the ability to control themselves in solving problems faced in the office – where ones who have good emotional intelligence will be able to monitor and control their own feelings and those of others – and use these feelings to guide thoughts and actions. Thus, emotional intelligence is needed to succeed at work and produce outstanding performance in work [23].

Conclusions

Based on the results of the research, it can be seen that self-leadership and emotional intelligence have an effect on reducing the burnout levels of nurses at GMIM Bethesda Hospital and Noongan Hospital. The impact of this research is that the decrease of nurse burnout levels can be solved in various ways, one of them is self-leadership and emotional intelligence. Self-leadership and emotional intelligence are an alternative for hospitals on improving the health of the nurses.

Disclaimers

The views expressed in the submitted article are ours and not an official position of the institution or funder. The ethical approval was obtained from Health Research Ethics Committee, Faculty of Public Health, Universitas Hasanuddin.

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