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The Effect of Mindfulness on the Family Well-Being in Mother who Works as a Nurse

Abstract

Background: Mothers who work as nurses are one of the vulnerable groups and are at risk of imbalance of roles in work and family due to multiple roles. The dual role requires working mothers to carry out their duties as mothers and wives at home, while at work can carry out duties as nurses. This is a stressor for mothers who work as nurses in adapting to their roles. This condition can reduce family well-being by decreasing the relationship of family structure, the ability of the role and function of the mother in the family, and the ability to prevent family vulnerability. Interventions that can be carried out to improve the family well-being are Mindfulness STOP (Stop, Take a Breath, Observed, Proceed).

Objective: This study aimed to determine the effect of mindfulness on family well-being in mothers who work as nurses at X Hospital Semarang.

Method: The design of this study was a quasi-experiment pre-post test with a control group, involving 52 respondents obtained by purposive sampling technique based on the results of inclusion criteria screening, consisting of 26 respondents in the intervention group (given Mindfulness exercises) and 26 respondents in the control group (without treatment). Mindfulness STOP is given for 4 sessions totaling 4 meetings in 1 month. Data analysis used Wilcoxon and Mann-Whitney tests.

Results: The results of this study are mindfulness effect on improving family well-being in the intervention group of mothers who work as nurses with a p-value of 0.000.

Conclusion: The conclusion of this research is mindfulness can improve family well-being in mothers who work as nurses. Mindfulness is recommended as an intervention to improve employee well-being, especially in carrying out roles in the family and as a basis for further research.

Keywords: working mother; nurse; family well-being; mindfulness

INTRODUCTION

The number of female workers is currently increasing. Bureau of Labor Statistics U.S. In 2011 reported in 1975, there were 39% of women who have children under six years old in the US employed and in 2010, this figure increased to 64% (Buehler & Brien, 2011). Similarly, the number of the labor in Indonesia force in August 2013 was 120.17 million people increased to 125.44 million people in August 2016 (Ministry of Health (Ministry of Health of the Republic of Indonesia), 2016). While the number of female workers in Central Java in 2015 amounted to 6,709,835 people, increasing in 2016 to 6,808,569.
people (National Labor Force Survey (Sakernas), 2016).

An increasing number of female workers or working mothers is due to financial needs, relational social needs, and self-actualization needs (Badan Pusat Statistik, 2016). The most female occupation is a nurse where women constitute 80% of the total workforce in the world (Sharma, Dhar, & Tyagi, 2015). Working mothers are vulnerable groups and at risk for occupational hazards, one of which is a psychosocial hazard (Nies & McEwen, 2014; Oakley, 2008). The psychosocial hazard that is often experienced by mothers who work as nurses is an imbalance between work and family due to multiple roles. The results of a review by Gonnelli and Raffagnino in 2017 showed that work-family conflict is a stressor in nursing and is the most analyzed risk factor in the workplace (Gonnelli, 2017). Conflicts that occur in nursing staff are supported by the results of a study by Agustian in 2015 which showed that there were 83.6% of nursing staff having high intrapersonal conflicts, these conflicts could come from patients, families or coworkers.

The results of a preliminary study of 12 female nurses who were married showed 58.3% experienced high dual role conflicts such as childcare left to others, feeling exhausted after work, did not have quality time with family, and they were not satisfied with marriage. While 33.3% experienced moderate dual role conflicts such as feeling calm with the division of tasks as a mother, sometimes feeling tired with excessive responsibilities but still able to focus on work, and can perform the role of parents according to family expectations.

Rice found the results that working women tend to experience higher stress compared to men due to dual role conflict (Widyasrini, 2016). Stress on working mothers will affect the ability of mothers to function in parenting. The higher the stress due to multiple roles, the function of parenting in working mothers will decrease (Gani, 2016). High work-family conflict can also cause low marital satisfaction along with low levels of family well-being (Fischer, Zvonkovic, Juergens, Engler, & Frederick, 2015).

Imbalance of work and family roles due to dual role conflict and psychological pressure will affect family well-being of mothers who work as nurses (Westrupp, Martin, & Zubrick, 2016), which arises psychological problems and conflicts that are often associated with stressful events (Erdilek, Akyüz, & Elçi, 2016; Lucas et al., 2011; Ruppanner, 2011). Based on the results of a preliminary study of 12 female nurses, data obtained 75% of mothers who work as nurses were less prosperous (less able to develop themselves and carry out their role in the family in setting life goals) and some 25% of mothers who work as nurses were prosperous enough (capable of carrying out roles as mothers and nurses enough and desires to develop themselves in achieving life goals).

Family well-being for mothers who work as nurses is a mental health condition that describes maternal adaptive coping with stress in carrying out roles and functions in the family and maintaining the strength of relationships between family members (Ora L. Strickland, 2001). Interventions that can be done to improve family well-being include positive psychology intervention: gratitude intervention, three good things, and best possible selves, well-being therapy, and mindfulness (Kaplan, Afra, Anderson, & Hargrove, 2013; Malinowski Peter, 2015; Seear & Vella-Brodrick, 2012). Mindfulness was chosen as an effort to improve well-being because the ability of mindfulness can strengthen an individual’s adaptive coping with stressors, easily done independently and consciously, anytime and anywhere (Malmberg-ceder, Haanpää, Korhonen, & Kautiainen, 2017). Coping strategies and adaptive behaviors will increase one's ability to prosper (Zheng, Kashi, Fan, Molineux, & Ee, 2016).

Mindfulness has been proven to reduce stress, depression, sleep disorders, fatigue, increase happiness, nurturing children, relationships with partners, increase calmness, empathy, self-confidence, work involvement, morale, and well-being (Atanes et al., 2015; O’Leary & Dockray, 2015; Perez-Blasco, Viguer, & Rodrigo, 2013), both the health professionals well-being (Atanes et al., 2015), and the nurse employees well-being in the company area (Bazarko, Dawn; Cate, Rebecca A; Azocar, Francisca; Kreitzer, 2013).

Mindfulness is a nursing training or therapy done by someone with awareness, full acceptance, carried out with high self-efficacy (confidence) and independently (self-care) to achieve the desired
Mindfulness exercises are carried out through group processes (Kar, Shian-ling, & Chong, 2014), to provide support for mothers who work as nurses in improving the ability to adapt to multiple role stressors. This group process can also foster self-efficacy in working mothers to be able to solve problems independently (self-care). The results of the study stated that self-efficacy can affect one's psychological well-being. High self-efficacy will result in high psychological well-being (Salimirad, Srimathi, 2016). Thus, the nurse's role as a facilitator is needed in mindfulness training.

Mindfulness interventions to improve the well-being of nurses that have been tested only focus on the well-being of workers in the workplace, both psychological well-being and subjective well-being (Atanes et al., 2015; Bazarko, Cate, Azocar, & Kreitzer, 2013; Weare, 2014). The well-being of mothers who work as nurses in the family is needed to be able to achieve family well-being. Mindfulness was chosen as an effort to improve family well-being in mothers who work as nurses because it can strengthen the individual's adaptive coping with stressors. This ability is complemented by the self-regulation of direct experience, being open, and accepting current experiences (Dwidiyanti, Pamungkas, & Ningsih, 2017)). Based on the description, the researcher wants to know the effect of mindfulness on family well-being in mothers who work as nurses.

METHOD
This research design is a quasi-experiment pre-post test with a control group (Sugiyono, 2011). The intervention group received mindfulness exercise intervention, while the control group did not get intervention from the researchers and data collection was carried out in both groups (Sugiyono, 2013). The population in this study involved 155 female nurses in the inpatient room B RS X. Large sample of this population was obtained by the Lameshow formula of 52 female nurses divided into 2 groups, the intervention group consisted of 26 female nurses and the control group consisted of 26 nurses woman. The sampling technique used was purposive sampling with inclusion criteria, namely female nurses who were married, aged 20-40 years, worked more than 1 year, and lived with children and husband; exclusion criteria were divorced female nurses.

This research was conducted at X Hospital in February-May 2018. The instrument used in this study was the Family Well-Being Assessment (FWA) questionnaire developed by Shirley M. Caldwell which consisted of questionnaires for parental well-being and child well-being. This study only used the parents' well-being questionnaire. The Indonesian translation FWA questionnaire used by previous researchers has tested its validity and reliability values. Of the 57 statements tested, 42 valid items with r count> 0.297 and 15 invalid items were not used in this study. While the reliability test results of 42 valid items show an alpha value of 0.943 (alpha cronbach> 0.600) so that this instrument is reliable and can be used. In addition to the FWA questionnaire, the Mindfulness Exercise Operational Procedure Standard (SPO) is also completed with a training procedure checklist sheet and self-efficacy assessment using a self-efficacy scale developed from the 1-10 pain scale (Dwidiyanti, Pamungkas, & Ningsih, 2017)).

The study began with the selection of facilitators (field officers) who served as research assistants in collecting respondent data. There were two facilitators involved with the following criteria: 1) female nurses who were married 2) had work experience of more than 5 years 3) served as head of the room 4) had attended mindfulness training. After that, the researcher screened respondents according to inclusion and exclusion criteria, then explained the aims and procedures of the study and gave written informed consent to the respondent.

The study began with the Mindfulness STOP training for the facilitator in week 0, with 60 minutes of four sessions. The training of the facilitators is conducted in a soundproof room, equipped with a mattress, and sound for the accompanying music training. After that, the researcher explained the Mindfulness STOP exercise procedure, goals and benefits, mindfulness exercise observation sheet and self-efficacy assessment sheet using a modified self-efficacy scale from the pain scale 1-10 (Dwidiyanti, Pamungkas, & Ningsih, 2017). After facilitator training, the researcher divided the respondents who had agreed to informed consent into 2 groups,
the intervention group (26 female nurses) and the control group (26 female nurses). The researcher then conducted a mindfulness exercise on the intervention group using the SPO Mindfulness STOP which consisted of four sessions. The mindfulness group members meet every week, one meeting lasts for 60-90 minutes, and takes place within 2 weeks. The control group was not treated when the intervention group was given mindfulness training. Pre-test and post-test respondents in both groups were assessed by the FWA questionnaire. All respondents in the intervention group successfully followed the mindfulness training procedure from the beginning to the end of the meeting. None of the respondents dropped out during the research activities.

RESULTS

Univariate analysis was performed on the characteristics of respondents (age, income, length of work) and the well-being of mothers who worked as nurses. Variants on the characteristics of respondents identified equality with the Homogeneity of variance test. Homogeneity test results showed that the variance of the age variable between the intervention group and the control group was significantly homogeneous with p = 0.912 (p-value > 0.05). The work duration variable between the intervention group and the control group was also homogeneous with a p-value of 0.700 (p-value > 0.05). Whereas the income variant is a constant value with the same income as Rp.2,125,000, which means it is also homogeneous.

Bivariate analysis in this study is an analysis to find out the interaction between mindfulness variables with family well-being in mothers who work as nurses. Data on family well-being of mothers who worked as nurses in the intervention and control groups before and after each intervention was tested for normality using the Shapiro Wilk test in which the number of study samples was less than 50. The results of the normality test showed the family well-being of mothers who worked as nurses in the group intervention and control is not normally distributed (p-value < 0.05) so using the non-parametric test Wilcoxon Test. While the family well-being data for mothers who worked as nurses of the two groups (before and after the intervention) were tested for normality using the Kolmogorov Smirnov test with a p-value < 0.05 which means the data before and after the intervention were not normally distributed so that the differences in the two groups were tested with non-parametric test Mann-Whitney test.

Table 1. Differences in Pre-Test and Post-Test Family Well-being Meaning for Mothers Working as Nurses in the Intervention and Control Groups at Hospital X in April-May 2018 (n1 = 26 and n2 = 26)

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre/Post test</th>
<th>Mean</th>
<th>SD</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>Pre Test</td>
<td>125.62</td>
<td>7.03</td>
<td>0.000*</td>
</tr>
<tr>
<td></td>
<td>Post Test</td>
<td>141.35</td>
<td>10.04</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>Pre Test</td>
<td>121.04</td>
<td>20.13</td>
<td>0.102*</td>
</tr>
<tr>
<td></td>
<td>Post Test</td>
<td>121.69</td>
<td>19.21</td>
<td></td>
</tr>
</tbody>
</table>

*Uji Wilcoxon

Table 1 shows the average value of family well-being for mothers who worked as nurses before the intervention in the intervention group was 125.62 and the control group was 121.04. While the average value of family well-being for mothers who work as nurses after the intervention in the intervention group was 141.36 and the control group was 121.69. Based on table 1 it is also obtained data that in the intervention group there are differences in well-being between pre-test and post-test where the p-value is smaller than the alpha value (p-value = 0.000 <α = 0.05). The difference in the pre-post intervention group can be seen from the increase in the mean value of 15.73. The difference in well-being values in the intervention group shows that providing mindfulness training can improve family well-being for mothers who work as nurses compared to the control group who did not get the intervention. While in the control group can be seen from the value of p-value = 0.102 (p> α) which means there is no significant change seen from the mean pre-post test which only increased by 0.65, this can occur because it is influenced by several factors.

Table 2. Effects of Mindfulness on Family well-being of Mothers Working as Nurses in the Intervention and Control Groups After Mindfulness Training in Hospital X April-May 2018 (n1 = 26 and n2 = 26)

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Mean Differences</th>
<th>95% CI (Upper-Lower)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>141.35</td>
<td>19.66</td>
<td>137.29-129.45</td>
<td>0.000*</td>
</tr>
<tr>
<td>Control</td>
<td>121.69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Uji Mann-Whitney
Table 2 shows that in the intervention group and the control group before and after the intervention there were significant differences in well-being values (mean differences = 19.66) where the p-value was smaller than the alpha value (0.000 < 0.005). Therefore, it can be concluded that the provision of mindfulness training in the intervention group effects on improving family well-being for mothers who work as nurses.

DISCUSSIONS

A. Family Well-Being of a Mother who Works as a Nurse in the Intervention and Control Groups Before Providing Mindfulness Exercises

The results of this study indicate that the average value of family well-being in mothers who work as nurses before mindfulness training in the intervention group is 125.62 and the control group is 121.04. The results of this study are in line with the results of a study by Sahusilawane, Lourista, et al in 2017 which showed that the well-being of nurses was in the moderate or well-being category with a mean well-being score of 123.62. Family well-being for working mothers is the well-being of parents who describe mental health conditions in adapting to stressors to shape family health. The well-being of working mothers in both the intervention and control groups in this study, both of them were dominated by an excess role component of 82.45% due to the multiple roles experienced by working mothers as workers and mothers. The several factors that can affect the well-being conditions of working mothers in the family include age, work, income, attention, acceptance, adaptation, and health (Across, Center, & Center, 2014; Huppert, 2014; Social Policy Evaluation and Research Unit, 2015; Ryff, 2014).

A mother has an important role in the family that is in her husband and child, as well as working mothers. A working mother is a mother who can combine work and family responsibilities. The role of mothers working at home, among others, as a wife, housekeeper, caregivers and educators of their children, as members of the community, as well as additional breadwinners for the family (Kaakinen, Coelho, Steele, & Robinson, 2018). This role can be done well if a working mother has adaptive coping with multiple role problems experienced (Davison, Neale, & King, 2010). By following the results of Pratiwi's research, P.Y 2018 which showed that coping can mediate dual role conflict and significantly influence the conditions of the subjective well-being of nurses. Mothers working in families, in this case working as nurses, can use positive coping so that psychological aspects can function properly and can carry out daily activities to improve well-being (Davison, Neale, & King, 2010; Dwidiyanti, Pamungkas, & Ningsih, 2017).

B. Effects of Mindfulness Exercises on Increasing Family Well-being for Mothers Who Work as Nurses in the Intervention Group

The results showed that there were significant differences in the value of well-being in the intervention group and the control group after giving Mindfulness exercises with a significance of 0.000 (p-value < 0.05). Based on this analysis it can be concluded that mindfulness training is proven to affect improving family well-being in mothers who work as nurses. This is indicated by the change in well-being values in the intervention group after the mindfulness exercise treatment, which initially an average well-being value of 125.62 increased to 141.32.

Mindfulness training is an exercise for someone to be aware of the conditions experienced by the body, mind, and feelings now, and consciously make goals and focus on solving problems that are faced in order to calm down (Dwidiyanti, Pamungkas, & Ningsih, 2017; Perez-Blasco, Viguer, & Rodrigo, 2013). Mindfulness training in this study is complemented by the STOP technique (Stop, Take a breath, Observed, Proceed) which is a four-step approach to being able to enter and process mindfulness easily anytime and anywhere (Kar, Shian-ling, & Chong, 2014).

The STOP method can help respondents in growing awareness, attention, and acceptance easily because it can be done anytime and anywhere. Focusing the mind is done by stopping, pausing from whatever activities are being done and calming down. Take a breath is done by taking a deep breath and feel the flow of air in and out of the body. This stage teaches to be able to respect oneself, love
oneself, and compassion. Observed is the stage of observing what is happening to yourself at this time, what is being thought, what is being felt and what emotions are being experienced. This stage can open awareness and allow focus on thoughts and feelings so that they can accept the condition of oneself and feel confident (cell efficacy) of one’s own ability to solve problems. Proceed is carried out by carrying out daily activities that are felt to support the creation of mindfulness. This session was conducted to always raise awareness, attention, and acceptance in everyday life (Dwidiyanti, Pamungkas, & Ningsih, 2017; Fiocco & Mallya, 2014; Kar, Shian-ling, & Chong, 2014; Tang, Hölzel, & Posner, 2015).

Mindfulness STOP exercises reshape neural pathways, increase the density and complexity of connections in areas related to cognitive abilities such as attention, awareness, introspection, areas related to kindness, compassion, and rationality, and decrease in areas involved in anxiety (Brown, Creswell, & Ryan, 2015). The study results show that mindfulness meditation can change the structure and function of the brain to improve the quality of thoughts and feelings (Tang, Hölzel, & Posner, 2015).

This Mindfulness STOP exercise improves the family well-being of mothers who work as nurses through focusing on the mind, feelings, and sensations of the body so that respondents can feel and interpret their current condition and here. Thus, respondents who initially experience role tension due to stress due to multiple roles will have calmness and happiness towards adjusting their roles. Previous studies have shown that mindfulness is associated with health, can reduce stress, improve well-being in the health workforce, improve childcare abilities, relationships with partners, work spirit, and psychological well-being (Atanes et al., 2015; Bazarko, Cate, Azocar, & Kreitzer, 2013 ; O’Leary & Dockray, 2015).

Mindfulness was chosen as an effort to help the working mother to improve well-being because the ability of mindfulness can strengthen individual adaptive coping with stressors (Frank, Reibel, Broderick, Cantrell, & Metz, 2015; Gu, Strauss, Bond, & Cavanagh, 2015; Khoury et al., 2013). This ability is complemented by self-regulation of direct experience, being open, and accepting current experience independently consciously, anytime, and anywhere (Dwidiyanti, Pamungkas, & Ningsih, 2017; Ivtzan, Niemiec, & Briscoe, 2016; White, 2014). This awareness will help loosen your thoughts and feelings more rationally than blaming others. The exercises conducted in this study were four formal meetings and informal exercises that were assessed for their abilities with a checklist of mindfulness exercises and self-efficacy assessments. Mindfulness exercises that are done routinely can change positive behavioral habits such as calmness, self-acceptance, affection, and happiness (Dwidiyanti, Pamungkas, & Ningsih, 2017; Ivtzan, Niemiec, & Briscoe, 2016).

This study also showed that the value of well-being in the control group tended to remain even increased without intervention. Changes in conditions in the control group can occur due to internal and external factors that are difficult to control individuals. Huppert in 2009 stated that the personality of a person with extraversion and neuroticism, supportive, warm, and trustworthy interpersonal relationships will influence the condition of psychological well-being (Huppert, 2014).

The time for self-efficacy assessment and homework review done by the facilitator is a limitation in this study. Assessment and implementation of informal exercises (homework review) between one respondent and other respondents do at a different time because of differences work shifts. Therefore, it is recommended for further research to do mindfulness exercises with different techniques at the same time between respondents, both formal and informal exercises.

CONCLUSIONS
Mindfulness training interventions affect the improvement of family well-being in mothers who work as nurses. Based on the results of this study, mindfulness exercises can be applied in everyday life anytime and anywhere by workers both in hospitals, educational institutions, companies, and at home to improve workers’ well-being. Besides, this intervention can be used as one of the achievements in the competency of practical nursing community teaching laboratories in occupational health as well as a basic material for further research.
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