THE REFLECTIVE SUPERVISION MODEL: AN EFFORT TO INCREASE NURSE JOB SATISFACTION

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ABSTRACT
Background: Job satisfaction influences the quality of health services in hospitals. However, low job satisfaction of nurses exists in the literature and influenced by various factors, including supervision. Thus, a reflective supervision model is considered effective in improving nurse job satisfaction.
Objective: This study aims to analyze the effect of the reflective supervision model on nurse job satisfaction.
Methods: This was a quasi-experimental study with control group design conducted from May to July 2017 at two hospitals at Central Java, Indonesia. There were sixty-eight nurses selected using purposive sampling, with 34 nurses assigned in the experiment and control group. Data were collected using questionnaires and then analyzed by paired t-test.
Results: Paired t-test obtained p-value of 0.000, which indicated that the reflective supervision model has a significant influence to nurse work satisfaction.
Conclusion: The reflective supervision model has a significant effect in increasing nurse job satisfaction. Therefore, this model could be applied by the head nurses to improve nurse outcome indicator, especially for nurse job satisfaction.

Keywords: job satisfaction, nurse, reflective supervision model

INTRODUCTION
Nursing service plays an important role in realizing a complete health service in the hospital. However, it requires professional human resources, including nursing resources as the largest number in health care.1 The number of nurses in Indonesia is more than the number of other health workers, approximately 50-60% in
hospitals and have 24 hours working hours through shift assignment, thus nurses roles contribute greatly in improving the quality of health services.\textsuperscript{2} Ministry of Health stated that the number of nurses in Indonesia reached 237,181 nurses.\textsuperscript{3}

One of the efforts to improve the quality of health services is to set the main quality indicators in the managerial area, such as job satisfaction of the employee/nurses. Wijono, D\textsuperscript{4} stated that the nurse and patient satisfaction should be evaluated because job satisfaction is very influential in improving the quality of the hospital so that organizational goals can be achieved.

Job satisfaction of nurses according to Manojlovich M, Spence Laschinger HK\textsuperscript{5} generally can be interpreted as a person's satisfaction to his/her work. Job satisfaction is a function of workplace elements including attitudes and behavior. Stephen P. Robbins\textsuperscript{6} states that job satisfaction is an individual's general attitude toward his/her job. Job satisfaction can increase productivity even though it cannot be seen directly. It could be said that job satisfaction of nurses is an individual attitude of nurses to their work and function of workplace elements, and can increase productivity although it is not directly visible.\textsuperscript{7,9}

However, dissatisfaction of nurses is still identified in the literatures. Pietersen, C.\textsuperscript{10} study found that 63\% of nurses dissatisfied with supervision. Selebi, C. and Minnaar,\textsuperscript{11} A study showed that the nurses' job satisfaction is still very low at 42\%. Research of Noras JU and Sartika RAD\textsuperscript{12} indicated that 77.5\% of nurses were dissatisfied in their work as associate nurses. Baumann A.\textsuperscript{13} revealed that 41\% of nurses experience dissatisfaction at work in the United States, Canada, the United Kingdom and Germany.

Previous studies have shown that job satisfaction of nurses is influenced by several factors, such as burnout, rotation, work stress\textsuperscript{14,15}, work climate, administration, low conflict, leadership support\textsuperscript{16}, organizational management factors, salary factors, working condition\textsuperscript{17}, employment, age, length of work, and the personal characteristics\textsuperscript{18} and managerial competence of the leader.\textsuperscript{19,20} Jayasuria R. et al\textsuperscript{21} and Mayasari A\textsuperscript{22} also suggested that the supervisory factor had an effect on the nurses' job satisfaction. Research in the United States with 72 nurses indicated that the most influential factor on job satisfaction is supervision support, as an activity in the management functions.\textsuperscript{23} Cortese CC\textsuperscript{24} and Dogan H\textsuperscript{25} also suggested that the factor of supervision is an important aspect that affects the nurses' job satisfaction. Thus, it should be emphasized and optimized.

Management functions generally consist of planning, organizing, actuating and controlling. Supervision is included in actuating in the management function. However, Supratman and Sudaryanto A\textsuperscript{26} stated that the implementation of nursing supervision in various hospitals has not been optimal and nurses in most hospitals in Indonesia are not able to play the management function properly. Mularso's research\textsuperscript{27} found that more supervision activities are not on guidance, observation and judgment. Whereas, applying supervision properly will lead to nurse satisfaction because they feel accepted, valued, and involved so that there will be commitment to the organization to continuously improve nursing service. Therefore, this study aims to determine
the influence of reflective supervision model on nurse job satisfaction.

METHODS

Design
This was a quasi-experimental study with control group design.

Setting
The research was conducted between May-July 2017 in two hospitals owned by Government of Central Java, namely Tugurejo Hospital as a place of experiment group and Dr. Moewardi for the control group.

Target Population and Sample
Population in this research was nurse practitioners. There were sixty-eight nurses selected using purposive sampling, with 34 nurses assigned in the experiment and control group. The inclusion criterion was a permanent nurse (non-contracted nurses) having a work experience of at least 2 years, while the exclusion criteria were off-duty nurses or nurses who were continuing education.

Intervention
In the experiment group, intervention was implemented in the 7-day reflective model supervision training provided by the nursing management team. The training consisted of the delivery of the material about management and reflective supervision model on the 1st day, the supervision preceptorship of the reflective model on the 2nd day until the 6th day, and applying supervision reflective model in the chosen three wards. Obstacles in this study were that the researchers could not conduct the individual intervention process. Intervention should be implemented by involving top nursing management in order that the assessment of the ability of head nurses in the reflective supervision model is objective. While in the control group, two wards were not given reflective supervision model.

Instruments
Questionnaires were used for data collection, which consisted of demographic characteristics questionnaire including age, sex, employment time, education, and marital status; and the nurse job satisfaction questionnaire, with 45 unfavorable statements consisting of positive statements (31 statements) and negative statements (15 statements), using 4 points-Likert scale ranging from 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, and 4 = Strongly Agree. Each participant was asked to fill the questionnaire giving a checked-list mark (√). The job satisfaction questionnaire was adopted from Siagian instrument, which its dimensions consisting of: autonomy in work, task variation, job identity, job importance, and feedback. The reliability and validity test of the instrument had been performed in Indonesia with the result that this instrument is valid and reliable, with Cronbach alpha of 0.969 (> r-table 0.349).

Data Analysis
To examine the homogeneity of participant’s characteristic in term of age and employment time, Mann Whitney test was used; while gender, educational level, and status of respondents used Chi Square test. To examine the effect of head nurse’s reflective supervision model on nurse's satisfaction, paired t-test was used.

Ethical Consideration
This study has been approved by the Ethical Clearance team of the Faculty of
Medicine, Diponegoro University with the ethical clearance number 147 / EC / FK-RSDK / IV / 2017. Prior to data collection, each respondent has signed an informed consent.

RESULTS

Table 1 shows that the average of age in the experiment group was 30.15 and in the control group was 31.20 with p-value 0.975, which indicated that there was no difference in the characteristics age of respondents between both groups, similar with the employment period that there was no difference between both groups with p-value 0.774. The average of employment period in the experiment group was 5.06 and in the control group was 5.82. It could be said the characteristics of age and employment period in the experiment and control group were homogeneous.

Table 1 Homogeneity test of the characteristics of the respondents based on age and employment period in the experiment and control group using Mann Whitney test (N=68)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Experiment group</th>
<th>Control group</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean SD Min-Max</td>
<td>Mean SD Min-Max</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>30.15 4.32 22-38</td>
<td>31.20 6.97 22-48</td>
<td>0.975</td>
</tr>
<tr>
<td>Employment period</td>
<td>5.06 3.43 1-15</td>
<td>5.82 4.99 1-20</td>
<td>0.774</td>
</tr>
</tbody>
</table>

Table 2 Homogeneity test of the characteristics of the respondents based on gender, education, and marital status in the experiment and control group using Chi Square test (N=68)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Experiment group</th>
<th>Control group</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency %</td>
<td>Frequency %</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>12 35.3</td>
<td>13 38.2</td>
<td>0.801</td>
</tr>
<tr>
<td>Female</td>
<td>22 64.7</td>
<td>21 61.8</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma III</td>
<td>17 50.0</td>
<td>22 64.7</td>
<td>0.220</td>
</tr>
<tr>
<td>Bachelor</td>
<td>17 50.0</td>
<td>12 35.3</td>
<td></td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>8 23.5</td>
<td>7 20.6</td>
<td>0.770</td>
</tr>
<tr>
<td>Married</td>
<td>26 76.5</td>
<td>27 79.4</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 shows that the gender characteristic in the experiment group consisted of 22 females (64.7%) and 12 males (35.3%), while the control group consisted of 21 females (61.8%) and 13 males (38.2%). Chi-square test result was 0.801, which indicated that the gender characteristic between both groups were homogeneous. It is also shown that in the experiment group there were 17 respondents (50%) had diploma level background and the other 50% had bachelor level background, while the majority of the educational background of the respondents in the control group was Diploma III (64.7%) and bachelor level (35.3%) with p value of 0.220, which indicated that there was no difference in the characteristic of educational background between both groups. In addition, there was no difference of marital status in the experiment and control group with p-value 0.770. Most of the respondents were married, with 76.5% in the experiment group and 79.5% in the control group.
Table 3 Nurse job satisfaction before and after the reflective supervision model in the experiment and control group (N=68)

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean (pretest)</th>
<th>SD</th>
<th>Min–max</th>
<th>Mean (posttest)</th>
<th>SD</th>
<th>Min–max</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>Experiment</td>
<td>82.65</td>
<td>20.46</td>
<td>52-135</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>113.03</td>
<td>20.73</td>
<td>66-135</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posttest</td>
<td>Experiment</td>
<td>158.67</td>
<td>12.12</td>
<td>133-178</td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>114.79</td>
<td>20.06</td>
<td>67-135</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows that the mean job satisfaction score before intervention in the experiment group was 82.65 and in the control group was 113.03. Mann Whitney was used because of non-normal data distribution with p-value of 0.000, which indicated that there was a difference in nurse job satisfaction before given intervention between the experimental and control group. While the mean value of job satisfaction of respondents after intervention in the experiment group was 158.67 and in the control group was 114.79. Mann Whitney test results showed p value of 0.000, indicated that there was a significant difference in nurse job satisfaction after given intervention between the intervention and control group. However, the mean of job satisfaction in the intervention group was higher than the mean in the control group. There is a significant improvement of job in the experiment group.

Table 4 Effect of the reflective supervision model on nurse job satisfaction using Paired t-test (N=68)

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean (pretest)</th>
<th>SD</th>
<th>Min–max</th>
<th>Mean (posttest)</th>
<th>SD</th>
<th>Min–max</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>82.65</td>
<td>20.46</td>
<td>52-135</td>
<td>158.67</td>
<td>12.12</td>
<td>133-178</td>
<td>0.000</td>
</tr>
<tr>
<td>Control</td>
<td>113.03</td>
<td>20.73</td>
<td>66-135</td>
<td>114.79</td>
<td>20.06</td>
<td>67-135</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 4 shows the mean of nurse work satisfaction in experiment group before intervention was 82.65 and after intervention was 158.67. Paired t-test was used because of normal data distribution, and its result obtained p value of 0.000, which indicated that the Reflective Supervision Model has a significant influence to nurse work satisfaction in experiment group.

Table 5 Analysis of the difference in nurse job satisfaction after given intervention in the experiment and control group using Mann Whitney Test (N=68)

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>SD</th>
<th>Min–Max</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment</td>
<td>76.02</td>
<td>15.30</td>
<td>36-91</td>
<td>0.000</td>
</tr>
<tr>
<td>Control</td>
<td>1.76</td>
<td>2.74</td>
<td>1-8</td>
<td></td>
</tr>
</tbody>
</table>

Table 5 shows that the mean difference of nurse job satisfaction before and after intervention in the experiment group was 76.02 and in the control group was 1.76. Mann Whitney Test showed p-value 0.000, which indicated that there was a significant difference in mean value of nurse job satisfaction after given intervention between both groups. The reflective supervision model proved to influence and improve the nurse work satisfaction in the experiment group.
DISCUSSION

Characteristics of respondents
The results of this study concluded there was no difference in the characteristics of respondents based on age, employment, sex, education level, and marital status between the experiment and control group. Thus, the characteristics of both groups did not affect job satisfaction in each group. Previous study found that there was no significant relationship between age and employment with job satisfaction on the nurses.\textsuperscript{28,29}

This study is also in line with the studies of Mayasari A\textsuperscript{22}, Wijono\textsuperscript{30}, Morton et al\textsuperscript{31}, which suggest that age and gender demographic factors do not affect high or low satisfaction. The study of Gatot and adisasmito\textsuperscript{32} also suggests that there is no significant relationship between education level and job satisfaction of nurses, while Bernadeta BJ\textsuperscript{33} and Rosales RA\textsuperscript{34} stated that job satisfaction has nothing to do with marital status. According to the researcher's analysis, homogeneity of demographic characteristic in experiment and control group consisting of age, work period, gender, education level, and marriage status in this study did not contribute to job satisfaction because the job satisfaction in this study consisted of variables related to the supervision of the nurse.

Difference of nurse job satisfaction in the experiment and control group before and after given the reflective supervision model
Finding of this study revealed that there was a significant difference in mean value of nurse job satisfaction in the experiment and control group; and the mean of job satisfaction in the experiment group was higher than the mean in the control group. This is due to differences in function and supervision implementation before given intervention in the experiment group that was still not running well.

The Curtis’s study\textsuperscript{35} shows that nurse job satisfaction is still low in the Republic of Ireland. This occurs because the head nurses have not been able to play the role of management well, thereby unable to run a good supervision. Supervision is situationally implemented, tend to be supervisory, minimal activities such as guidance, direction, and provide feedback properly. This is in accordance with Supratman and Sudaryanto A\textsuperscript{26}, stated that the facts indicated that the implementation of nursing supervision in various hospitals has not been optimal and nurses in most hospitals in Indonesia are not able to play the role of management. Kuntjoro's research\textsuperscript{27} also found that more "supervising" activities are not on guidance, observation and judgment. In addition, this supervision activity should be the job of head nurses that is to supervise, but also direct, guide, and involve nurses’ participations.

Head nurses as a supervisor should be able to implement flexible management practices, communicative, and involving nurses in decision-making. This is consistent with Suyanto\textsuperscript{36} who argues that the supervision of the head nurses requires the active participation of all nurses involved in nursing service activities. Karanikola\textsuperscript{37} finds that nursing management is one of the main sources of dissatisfaction of nurses.

Low involvement in decision-making also affects nurses’ job satisfaction, poor relationships with management, lack of recognition, and lack of flexibility in
Managers should be able to understand what to do to create employee job satisfaction. According to the researcher's analysis, low job satisfaction of nurses could be seen from the lack of nurse autonomy in work, no various tasks, lack of appreciation, and poor feedback from the head nurses, thus lowering the spirit in work and cause a sense of dissatisfaction.

However, the reflective supervision model in this study shows a good result in nursing job satisfaction. It is consistent with the opinions of the Lewis, which suggests that the nurse will feel more satisfied with his/her work if he/she has the support of the supervisor and be well supervised in doing his/her work.

Brunero & Parbury study also revealed that nurse work satisfaction would be higher with a supervisory system that creates a well-built relationship between the head nurses and the staff nurses. According to the researchers' analysis, the increase of nurse work satisfaction in the experiment group is caused by the application of reflective supervision model, which consisted of reflection element, analysis, and change. The reflective supervision model is applied after the head nurses received training on how the supervision performs its role in accordance with the management function as the planning maker, dividing the task clearly, directing, guiding, and evaluating the tasks assigned to the nurses. The application of the reflective supervision model triggered the head nurses to design the nursing work with attention to aspects of job satisfaction, which include: work autonomy, task variation, task identity, importance of work, and feedback. Siagian stated that to improve job satisfaction it is necessary to pay attention to the work design given to the employee, in this way the nurse gets more positive challenge to improve their ability and skill through direction, guidance, and feedback done by head nurses. Alam expressed that satisfaction felt by having a variety of tasks that are challenging and not routine will be more able to help employees to see that opportunities to grow in the organization, so as to increase job satisfaction. Therefore, it could be said that the difference in nurse job satisfaction between the experiment and control group is influenced by management function factor started well by head nurses through the reflective supervision model.

**Effect of the reflective supervision model on nurse job satisfaction**

Paired t-test in this study showed that there was a statistically significant effect of the reflective supervision model on nurse job satisfaction. It is line with previous studies indicated that the factors that can influence and contribute to job satisfaction are supervision from supervisor.

This research is also consistent with the research results of Sitinjak and Sugiharto who found that the supervision is done consistently will increase job satisfaction 67.40%. The head nurses as the supervisor of the nurses in the ward must be able to play and carry out the management function properly. Management functions can be accomplished well by learning and improving professional skills, such as through education and training. Supervisor or head nurses who received supervision training proved to improve the ability in supervision activities. Intervention in the form of training for the head nurses or supervisors play an important role for an organization to
increase the ability of the head nurses as first line manager so that able to perform duties and functions properly.

Hasibuan\(^{45}\) argues that training is an attempt to improve technical, theoretical and conceptual and moral capacities according to the needs of work or position. The head nurses after given intervention can play the management function well and implement the reflective supervision model.

The activity of the reflective supervision model is implemented by the head nurses through three stages, namely reflection, analysis, and change.\(^{46}\) In the reflection process, head nurses provide an opportunity for the nurses to reflect on the clinical experience as a form of positive support provided by the head nurses and co-workers. After reflection process is achieved, then the analysis process is performed. The process of analysis in this model requires the head nurses to be able to encourage personal development of the nurses such as feeling, hope and intellectual aspect, by providing opportunities for nurses to analyze problems. The nurses will feel proud, having a great organizational commitment, high motivation and great job satisfaction if they know what they did is considered important by others. The head nurses need to convince every nurse that any simple jobs they do are very meaningful for the fulfillment of the patient's needs and the continuity of nursing services in the hospital. After analyzing together, the nurse will take pride in committing and implementing the change process in a better direction. The process of change in the supervision model can provide a meaningful learning experience and a valuable opportunity for nurses to bridge the gap between nursing theory and practice, by creating a follow-up plan of the problem analysis results discussed with the head nurses. In this activity the nurse shares information about the experiences, expresses the attention, and seeks clarification about the work or intervention plan.\(^{47}\)

According to the researcher's analysis, the increase of nurse's job satisfaction is caused by the good application of the reflective supervision model. The head nurses in this model were able to make the work design as part of the management functions, beginning with clear job description and varied in accordance with the competence of nurses. A clear job-sharing system can also foster autonomy in work. Autonomy is the fertilization of a sense of responsibility for one's work and its outcomes. Nurses who are given responsibility for implementing nursing care will foster self-esteem and increase satisfaction; and conversely with ongoing control and close supervision, can result in low apathy and work performance. Satisfaction will be felt by the nurses with the freedom to complete the work given to them, various tasks, making staff feel important in the work, and providing positive feedback on their work.\(^{42}\)

The results of the control group study also showed the increase of nurse job satisfaction. It could be influenced by the other factors, such as a reward factor. The reward system in the hospital during data collection was fluctuating every month depending on the hospital's income. It is supported by research from Khalid K et al,\(^{48}\) that reward factor as a form of appreciation is one of the factors of nurse job satisfaction. The results of this study are also in line with the study of Aktar S et al,\(^{49}\) stated that there is a positive relationship between rewards and job satisfaction.
satisfaction. Research Geleto A et al also found that in addition to management factors, rewards also affect the nurse's job satisfaction; and Li L et al and Asegid A found that one of the causes of job satisfaction was the factor of allowance/salary.

CONCLUSION

The results of this study indicated that the reflective supervision model implemented by head nurses proved to improve the work satisfaction of nurses. Therefore, the head nurses can apply the model as an effort to improve management function, especially to increase job satisfaction of nurses.

Declaration of Conflicting Interest
None declared.

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Authorship Contribution
All authors contributed equally in this study.

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