Role Stress, Personality Type, Burnout, and Performance of Midwives towards Postnatal Care Program Achievement in Surabaya City

Abstract
The coverage of postnatal care program in Surabaya City had declined since 2011–2013 and could not reach the target. This analytic observational study used a cross-sectional design and was conducted during April–May 2015 to analyze the effect of role stress, personality type, and burnout on midwives' performance towards postnatal care program achievement in Surabaya City. A total sample of 45 midwives was collected from eight primary health care centers in Surabaya City with basic emergency obstetric and neonatal care services. Accidental sampling was used for sample selection. This study indicated that most of the midwives were aged 20–30 years and had an diploma level of education in midwifery. Majority of them were married and were predominantly contract workers with <5 and 5 to <10 years workers experiences. Most of the midwives did not have role stress and had agreeableness personality type. However, majority of them had mild burnout and showed medium performance level. There was no influence of demographic characteristics, role stress, and personality type on burnout, whereas the performance was affected by role stress and personality type. The midwives' performance was more influenced by personality type than by role stress.

Keywords: Burnout, performance, personality type, role stress

Introduction
One of health problems in Indonesia is high maternal mortality rate (MMR). Data from Surabaya Health Office collected during 2011–2013 indicate that MMR was still quite high in Surabaya City, and the city also had the second highest rate of maternal deaths in East Java. Data from the Surabaya Mother and Child Health Local Monitoring collected during 2011–2013 also revealed a decline in the coverage of the postnatal care program, with an average decrease of 2.92% every year and being unable to reach the target. Average achievement was of 92.99% of the target 95%. More than half of all maternal deaths occurred within 24 hours after birth primarily due to heavy blood loss. In several countries, at least one-quarter of all maternal deaths are caused due to hemorrhage; the proportion ranges from <10% to almost 60%. Although a woman may survive after suffering from postnatal hemorrhage, she would suffer from severe blood loss (severe anemia) and experience the problems. To decrease maternal mortality, midwife personnel as one of the health care workers becomes an important human resource because of their ability to provide services in accordance with established standards. Due to their numerous roles, midwives may potentially suffer from role stress that can result in the emergence of burnout. Furthermore, their personality type also determines the onset of burnout, which can affect their performance in postnatal care.

According to the Ministry of Health Republic of Indonesia, the midwives’ performance in postnatal care involves checking the blood pressure, pulse, respiration, temperature, fundus uteri (uterine involution), lochia and other vaginal discharges, and the breast and recommending exclusive breastfeeding for 6 months, vitamin A supplements 200,000 IU twice, and postnatal family planning services. Regarding burnout, according to Maslach and Pines in Yusuf, it is an emotional fatigue syndrome, characterized by depersonalization and decreased sense of self-efficacy, experienced by individuals who work and always keep in touch with others. Burnout is an important issue in an organization as it can result in decreased performance. Sopiah argued that role stress is a condition where a person has difficulties in understanding his/her duties; thus, the roles he/she played would become too heavy or he/she would play a variety of roles in the organization where he/she works. Role stress can decrease the level of individual performance in an organization. Hence, it can affect the quality of work production, which would not be in accordance with the expectations of the organization itself. Lestari emphasized the beneficial effects of personality assessments to both individuals and organizations, as such assessments could identify individuals with motivation and match them with the right job. When the personality type of an employee is suited to their jobs, it would result in high satisfaction to the employee. He or she would therefore will be loyal and contribute maximally to the organization.

This study was conducted to analyze the effect of role stress, personality types, and burnout on the performance of midwives in the achievement of postnatal care program in Surabaya.

Methods
This analytic observational study using cross-sectional design was conducted during April–May 2015. The study population consisted of 45 midwives from eight primary health cares in Surabaya City having basic emergency obstetric and neonatal care services. Accidental sampling was used for sample selection. The following hypothesis testing formula for proportions was used to determine the minimum sample size of the midwives.

The formula was used to calculate the sample size in this study because this study analyzed the differences or comparisons between the study groups (the group whose performance was affected by burnout and the group whose performance was not affected by burnout).

The values of \( \pi_1 \) and \( \pi_2 \) were obtained based on the study by Maharani and Triyoga on the effect of burnout and performance of nurses on the delivery of nursing care.

Maharani and Triyoga demonstrated that there were two groups of burnout (mild burnout and no burnout). The values of \( \pi_1 \) and \( \pi_2 \) in the present study were obtained from the percentage between the group with good performance and mild burnout and the group with mild burnout \( (\pi_1 = 31/45 \times 100\% = 69\%) \) and from the percentage between the group with good performance and no burnout and the group with no burnout \( (\pi_2 = 8/8 \times 100\% = 100\%) \).

Data collection was carried out using questionnaires for its validity and reliability and also using observations to check midwives' examination on two or three first postnatal visits (KF-1). The observations of midwives' performance were conducted on KF-1 because postnatal maternal mortality primarily occurred within the first 24 hours after delivery. Data processing was done through data editing, data scoring, data coding, and data cleaning. Data were analyzed descriptively and analytically to determine the influence of independent variables on dependent variables simultaneously. The data were then assessed using multiple linear regression analysis. In the analysis of influence, independent variables such as education level, marital status, role stress, and personality types were converted into dummy variables, and then each dummy variable was compared with the variable of their reference group.

The role stress variable was assessed through the as-
essment of its subvariables such as role conflict, role ambiguity, and role overload. Role conflict was assessed using the role conflict scale, which was an eight-item scale adapted from Rizzo et al. Role ambiguity was assessed using the role ambiguity scale, a six-item scale adapted from Rizzo et al. Role overload was assessed using the role overload scale, which was a three-item scale adapted from Beehr et al. Respondents indicated their level of agreement on each statement by applying a four-point response scale (1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree).

The personality type variable was assessed using Big Five Inventory (BFI), a 44-item scale adapted from John and Srivastava. The indicators of personality types were neuroticism (8 items), extraversion (8 items), openness to experience (10 items), agreeableness (9 items), and conscientiousness (9 items). Respondents indicated their level of agreement on each statement by applying a four-point response scale (1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree).

The burnout variable was assessed using Maslach Burnout Inventory, which was a 22-item scale adapted from Maslach and Jackson. The indicators of burnout were emotional exhaustion (9 items), depersonalization (5 items), and personal accomplishment (8 items). Respondents indicated their level of burnout frequency on each statement by applying a four-point response scale (0 = never, 1 = rarely, 2 = often, and 3 = always).

The midwives’ postnatal care performance variable was assessed using a questionnaire with six indicators that were appropriate with the postpartum health care program based on the manual book of Surabaya Mother and Child Health Local Monitoring. To determine midwives’ postnatal care performance, 45 midwives were observed while they were performing postnatal care on two or three KF-1, and they were then assessed by filling out a six-indicator questionnaire with a two-point response scale (0 = if the item of postnatal care was not performed and 1 = if the item of postnatal care was performed).

Results

Majority of midwives were 20–30 years and primarily diploma in midwifery. These midwives (86.7%) were married, and >50% of them (62.2%) were contract workers with working experiences <5 years and 5 to <10 years. More than half (62.2%) did not have role stress, whereas only 6.7% of them had severe role stress. Most majority of them have agreeableness personality type, and only 8.9% have conscientiousness personality type. Almost all midwives had mild burnout, whereas only 6.7% of them did not have this experience. Most of them (55.6%) showed medium-level performance, and the remaining showed good and bad performance of the same measure (22.2%) (Table 1).

As shown in the Table 2, the personality type variable (conscientiousness type with p value = 0.010, β = 0.356) and role stress (severe role stress with p value = 0.014, β = −0.340) had significant effect on midwives’ postnatal care performance. This implies that midwives with the conscientiousness personality type (accuracy) showed a higher performance level than midwives with the openness to experience personality type (openness to experience) and the agreeableness personality type (deal). This also implies that the greater the role stress experienced by the midwives, the lower the performance they produced. Conscientiousness personality type is found to have a more significant effect on midwives’

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<thead>
<tr>
<th>Table 1. Frequency Distribution of Midwives’ Postnatal Care Performance</th>
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<tr>
<td>Performance</td>
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<td>----------------------------</td>
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<tr>
<td>Bad Performance</td>
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<td>Medium Performance</td>
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<td>Good Performance</td>
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<td>Total</td>
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Mean = 3.29 and Standard Deviation = 0.94

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<tr>
<th>Table 2. The Effect of Demographic Characteristics, Role Stress, Personality Type, and Burnout on Midwives’ Postnatal Care Performance</th>
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<td>Variable (Subvariable)</td>
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<td>Agreableness</td>
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<td>Conscientiousness</td>
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<td>Openness to Experience</td>
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<td>Mild Role Stress</td>
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Notes:
p < 0.05 significant, multiple linear regression analysis, B = regression coefficient
postnatal care performance than severe role stress. The demographic characteristics and burnout variables had no significant influence on midwives’ postnatal care performance (Table 2).

Discussion

This study demonstrated a difference in the performance of midwives who experienced mild, moderate, and severe role stress, indicating that the greater the role stress experienced by the midwives, the lower the performance they produced. Kahn et al. in Ahmad and Taylor,13 introduced the role theory in organizational behaviour. They stated that an organization’s environment can affect individual’s expectation in terms of their role behavior. The expectation includes norms or pressure to act in a certain manner. Individuals receive the messages, interpret, and respond in a variety of ways. Role stress is divided into: role conflict, role ambiguity, and role overload types. Based on field observations, this role stress is generally due to conditions in the field, that is, the unmet number of personnel in primary health care in accordance with the required fields, so that midwives carry out their duties and responsibilities that do not match with their competencies.

Kinicki and Kreitner in Tewal and Tewal,14 stated that when individuals feel conflicting demands from the surrounding people, then they are said to experience role conflict. Role conflict is experienced by individuals when internal values, ethics, or their standards collide with other demands. Robbins in Rozikin,15 defined role conflict as “a situation in which an individual (person) is faced with the expectations of different roles.” Hence, a conflict arises when individuals in certain roles are confused by demands or necessity to do something different from what they need, or when that is not a part of their work field. According to Fanani et al.,16 role conflict can cause discomfort in working and may reduce the motivation to work because it has a negative impact on an individual’s behavior, such as the onset of work tension, turnover, and job dissatisfaction that can degrade the overall performance. In this study, role conflict was also found in almost all the midwives, which affected them in performing their duties. The study conducted by Agustina,17 Widyastuti, and Sumiati,18 showed that role conflict can affect performance, wherein the greater the role conflict experienced by the individuals, the lower the performance they produced.

According to Ahmad and Taylor,13 role ambiguity is a concept that describes the availability of information relating to the roles. The role holders must know whether these expectations are appropriate and in accordance with the activities and responsibilities of their positions. In addition, people must understand whether the activities have been able to fulfill the responsibilities of a position and how the activities are carried out. Role ambiguity is due to unclear job descriptions, incomplete orders from work leaders, and lack of experience. Tang and Chang,19 stated that a high role ambiguity may reduce one’s confidence on his/her ability to work effectively. Midwives who experience role ambiguity tend to be inefficient and unfocused in working, thus causing deprivation of their performance. Agustina,17 demonstrated that role ambiguity can affect performance, wherein the greater the role ambiguity experienced by the individuals, the lower the performance they produced.

According to Suyanto,20 workload can be calculated based on three aspects, physical, mental, and time utilization. The physical aspect includes workload based on human physical criteria. The mental aspect is a computation of workload by considering the mental aspect (psychological). The time utilization aspect considers more in using time to work. The amount of additional jobs to be done by midwives can interfere their job performance. High task demands in working have the negative effect of the emergence of burnout among midwives, which can lead to a drop in performance and quality of services delivered. This condition has also been confirmed by the study by Agustina,17 which found that role excess or workload can affect the performance, wherein the higher the role excess or the workload experienced by the individuals, the lower the performance they produced.

The present study showed that midwives with the conscientiousness personality type (accuracy) produced better postnatal care performance than midwives with the agreeableness personality type (deal) and the openness to experience personality type (openness to experience). Conscientiousness personality type (accuracy) is one dimension of the big five personalities that are consistently associated with performance and success of work. Individuals with this personality type are characterized as hard workers, highly self-disciplined, reliable, organized, meticulous and detailed, and likely to be industrious; thus, it would have an impact on improving the performance. A person with this personality type has a strong motivation to achieve success and has a task-oriented behavior.21,22

Individuals with the agreeableness personality type (agreement) may work together in a team and be trustworthy, caring, kind, helpful, unselfish, and forgiving and do not like to quarrel with others. The study by Barrick et al. in Rustiarini,23 showed that this personality has a strong effect on a person’s performance. However, the tendency of the individuals with this personality type to create a conducive working environment, avoid conflicts with colleagues, and reduce...
the chances of conflict at the workplace can in fact cause these conditions that are not favorable for them as it can reduce the enthusiasm in competing for success and achieving higher performance than the achievements of other colleagues. Therefore, the creation of these conditions will indirectly reduce the spirit of work and performance of the individuals.

Individuals with the openness to experience personality type are characterized as imaginative, ingenious, loving variety, curious, creative, innovative, free-thinkers, and artistic. McAdams and Pals in Rustiarini, described that persons with this personality type have high intellect and thus possess innovation and ingenuity in solving problems. However, the study conducted by Rustiarini, demonstrated that individuals with this personality type when carrying out the standard type of assignments, which are less varied and even performed on the clients repeatedly for each year, can make them feel less challenged while carrying out their assignments. This is because they are not able to use their creativity and intellect to solve new problems. In addition, the less variety as well as the repetitive routine form of any given assignments can make them to get bored quickly, which would then have an impact in declining the performance they produced.

Midwives with mild burnout produced lower performance on postnatal care than midwives with no burnout because mild burnout was often found on midwives with moderate and severe role stress. Midwives with openness to experience and agreeableness personality types had lower performance than midwives with no role stress and midwives with conscientiousness personality type. In this study, it was observed that burnout occurred among the midwives only in the early stages, which is entirely possible due to the limited population size of the midwives studied, resulting in limitations to evaluate the midwives who experienced moderate and severe burnout.

Conclusion
Most of the midwives were 20–30 years with education level is dominated by diploma in midwifery, married, and >50% of them are contract workers with working experiences of <5 and 5 to <10 years. More than half did not experience role stress, whereas only 6.7% of them have severe role stress. Most of the midwives tend to have an agreeableness personality type, whereas a small proportion tend to have a conscientiousness personality type. Almost all midwives have mild burnout, whereas only 6.7% of them do not experience burnout. Most of them show medium-level performance, whereas the remaining showed good and bad performance of the same measure. The performance of midwives is affected by role stress (severe role stress with p value = 0.014, β = −0.340) and personality types (conscientiousness type with p value = 0.010, β = 0.536). The performance of midwives is found to be more affected by the conscientiousness personality type than by severe role stress.

Recommendation
Primary health cares should recruit new employees who will fit into the required fields to avoid inadequate human resources, which could have an impact on administering tasks to midwives that do not match with their competencies. Midwives who get new tasks that are not suitable to their competencies should be trained first, so that they can understand better about their duties and responsibilities in carrying out the new tasks, thus avoiding role ambiguity. Primary health cares should conduct a personality test on the process of recruitment and selection of midwives and prioritize those midwives who are hard workers, highly self-disciplined, reliable, organized, meticulous and detailed, and likely to be industrious (midwives with the tendency of conscientiousness personality type). Subsequent researchers who would conduct studies on the same topic can develop more complex variables that have not been examined in this study, such as social support, job satisfaction, and organizational commitment. Furthermore, a larger population size can be considered.

References