#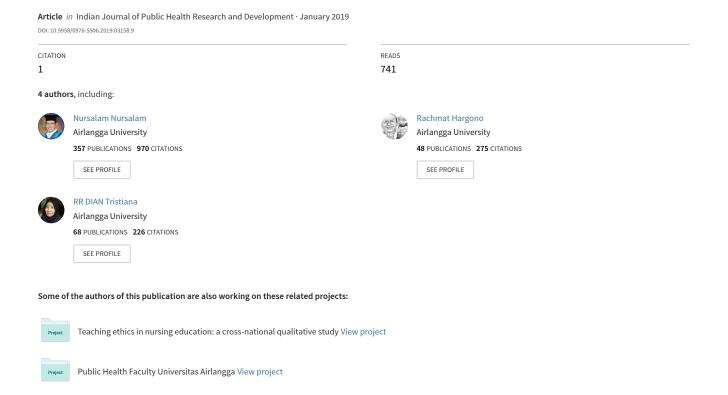 Recovery Self Efficacy, Coping Strategy, Adversity Quotient and Resilience among Iintensive Care Unit Nurses in Indonesia

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Recovery Self Efficacy, Coping Strategy, Adversity Quotient and Resilience among Iintensive Care Unit Nurses in Indonesia

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ABSTRACT

Introduction: Stress experienced by most critical care nurses can be caused not optimal nursing care. This study aimed to identify the correlation between recovery self-efficacy, coping strategy, adversity quotient and resilience among critical care nurse in three public hospitals in Surabaya, Indonesia.

Method: This study was cross-sectional study carried out on 91 critical care nurses. Data were collected using questionnaires. Descriptive statistic and Spearman's Correlation were used to analyze the data.

Result: Totals of 91 nurses were involved in the study. Spearman's correlation analysis showed that recovery self-efficacy (r=0.644, P<0.000) and adversity quotients (r=-0.217, P<0.039) were associated with resilience of critical care nurses whereas coping strategy (r= 0.036, P=0.734) was not correlated to resilience of critical care nurse.

Conclusion: Resilience among critical care nurses was correlated with recovery self-efficacy and adversity quotients. Thus, enhancing their capacity in terms of recovery self-efficacy and adversity quotients may improve the resilience of critical care Nurses

Keywords: *Intensive Care Nurses, resilience, recovery self-efficacy, coping strategy; adversity quotient*

Introduction

The ICU nurses are confronted with unpleasant facts every day and it is very difficult to avoid the source of stress[1–3]. The stressors include stressful work life, problems that occur during caregiving and the problems that exist in the healthcare system[4]. All these situations or experiences increase the possibility of prolonged stress and may become worse to nurse performance[2]. However, notwithstanding this adversity, many nurses choose to remain as a nurse[5]. Nurses can encounter all difficult situation and bounce back from adversity when they are resilience. Resilience is an illustration of the process and results of successfully adapting to adversity situation or very challenging life experiences, especially situations with high-stress levels or traumatic events[6]. In the Indonesian context, there is a relatively

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limited study which reveals nurse resilience. Therefore, gaining an understanding of resilience and factors that contributed can be very beneficial for nurses in helping them develop greater personal resilience and in learning to deal with patients.

The previous study[7] indicated that there was a relationship between work stress and caring behavior where nurses did not display caring behavior because they experienced stress at moderate and severe levels. While other studies at the High Care Unit showed that nurses showed stressful behavior, experienced physical stress, and experienced emotional stress. The results of a preliminary study of researchers at a teaching hospital in Surabaya in July 2017 found that nurses showed symptoms of stress characterized by frequent sleep disturbance, loss of concentration and thinking small things were too detailed, irritable and tension when interacting with other health workers. Contact consistently with the events of death, interactions with patients and their families, conflicts with supervisors and uncertainty about therapy causing much higher stress in

ICU nurses[2,8]. This situation will cause psychological problems and this can have an impact on interactions with other health workers, work, and an institution's reputation. Other study indicate that there is a relationship between psychological stress and nurse caring behavior[9]. But nurses who have good resilience show a decrease in stress symptoms[10,11]. Other studies have found that resilience is related to nurse caring behavior[10].

International Council of Nursing in 2016 states that many efforts have been made to deal with stress that occurs in nurses, but not in efforts to build how nurses are resilient to the source of stress in their work environment so that they can overcome any problems that arise. Therefore, a preventive strategy is needed to help ICU nurses adapt to sources of stress so that they can carry out the sublime functions of nursing care[12]. One such strategy is to understand factors related to ICU nurse resilience. In this study, three-factor were examined namely adversity quotient, coping strategy, and recovery self-efficacy. Adversity Quotients is a score that measures the ability of a person to deal with adversities in his or her life[13]. Hence, it is commonly known as the science of resilience. Coping is categorized into the problem and emotion-focused coping [14] and avoidance coping[15]. A study found that resilient characteristics may associate in athletes to the use of more potentially adaptive coping strategies[16]. Moreover, based on the Health Action Process Approach (HAPA) model recovery self-efficacy describes the experience of failure and recovery from adversity[17]. Recovery self-efficacy is related to one's belief in the ability to continue positive actions after making behavioral changes in a negative direction[18]. Recovery self-efficacy helps to gradually return to acting based on one's wishes. Beliefs become strong if individuals can regain control of their behavior after falling on negative behavior [18].

It is important to help nurse identify factor may correlate with resilience in order to face and protect themselves from the impact of difficulties in the workplace. High resilience positively affects nurses' attitudes towards the profession, the future, life, and their work and life outputs. Furthermore, the nurse needs to understand resilience as a vital characteristic for nurses in today's complex healthcare system [19]

Only a few studies have examined the relationship between recovery self-efficacy, coping strategy, adversity quotient and resilience among ICU nurses. Therefore, this present study examined the correlation of recovery self-efficacy, coping strategy, adversity quotient and resilience among ICU nurses.

Materials and Method

Research Design and Setting: This investigation used the cross-sectional study to reveal the correlation of recovery self-efficacy, coping strategy, adversity quotient and resilience among ICU nurses. The population included all nurses except ICU head nurse at X General Hospital, Universitas X Teaching Hospital, and X General Hospital X from August – September 2018.

Respondents: A total of 95 nurses from three hospitals were recruited using total population sampling method. Only 91 nurses completed all questionnaires and the rest was dropped out from the study.

Measurement Tools: The data collection tools were questionnaires on the socio-demographic characteristic, on 91 ICU nurses. The questionnaires were adopted from the existing questionnaire. The researcher made some adjustment or modification on the questionnaire and tested the validity and reliability of the questionnaires on 26 ICU nurses in Darmo private hospital. The translation was accomplished by the researcher and proofread by Journal Development Team from Universitas X.

The Recovery self-efficacy questionnaire consisted of 25 questions. The Cronbach's α was 0,735. The question featured a Likert scale with the following option: always, very often, sometimes, and never. The total score for this section was in the range 25-100 with a higher score indicating a higher level of recovery self-efficacy. The coping strategy questionnaire consisted of 25 questions. The Cronbach's α was 0,774. The question featured a Likert scale with the following option: always, very often, sometimes, and never. The total score for this section was in the range 25-100 with a higher score indicating a higher level of coping strategy.

The Adversity Quotient questionnaire consisted of 40 questions. The Cronbach's α was 0,936. The question featured a Likert scale with the following option: strongly agree, agree, disagree, strongly disagree. The total score for this section was in the range 40-140 with a higher score indicating a higher level of the adversity quotient which divided into climber, camper, quitter

The Resilience questionnaire consisted of 35 questions. The Cronbach's α was 0,938. The question featured a Likert scale with the following option: always, very often, sometimes, never. The total score for this section was in the range 70-140 with a higher score indicating a higher level of nurse resilience.

Data Collection: The data was collected directly by the researcher. A questionnaire packet was completed with a description of the study, consent procedure, response confidentiality, and the researcher's contact details. The questioner was completed independently by the respondents and collected by a researcher on the same day. It took about two months to reached all respondents from three different hospitals and due to shifting schedules of nurses. A total of 95 questionnaires were distributed but 91 were completed and the rest was considered incomplete and invalid therefore indicating 94,8% returned rate.

Data Analysis: All data were analyzed using the SPSS 20.00 software. Descriptive statistic included frequency, percentages, means and the standard deviation was used to describe quantitative variables. Data were analyzed using Spearman's Correlation to identify the correlation between recovery self-efficacy, coping strategy, adversity quotient, and resilience among ICU nurses. In this study, the statistical level of significance was set at $P < 0.05$ for two sides.

Result

The majority of the respondent age at the range of 23 – 54 years old. Level of education was dominated at diploma level (64,8%) with work experience at 1-5 yrs (40.7%). A total of 64.8 % was female nurses (Table 1).

Table 1: Sociodemographic characteristic of Participants (n = 91)

Variables	n (%)	Variable	n (%)
Age (yrs)		**Work Experience (yrs)**	
<25	3 (3.3)	<1	7 (7.7)
25-30	35 (38.5)	1-5	37 (40.7)
31-35	19 (20.9)	6-10	19 (20.9)
36-40	8 (8.8)	11-15	9 (9.9)
41-45	14 (15.4)	16-20	11 (12.1)
46-50	6 (6.6)	21-25	5 (5.5)
51-55	6 (6.6)	26-30	3 (3.3)
Sex		**Level of education**	
Male	32 (35.2)	Diploma 3	59 (64.8)
Female	59 (64.8)	Bachelor	32 (35.2)

yrs: Years

In this study, the recovery self-efficacy total score ranged from 40 to 87 with the mean score was 68.36 ± 7.30. The mean score of Recovery self-efficacy dimension namely self-believe and intention were 40.44 ± 4.33, 27.93 ± 2.97 respectively (table 2).

Table 2: The correlation between recovery self-efficacy, coping strategy, adversity quotient and resilience among critical care nurse

Variable		N(%)	M ± SD	Min-max	M ± SD	r	p
Recovery self-efficacy	Self-Belief		40.43 ± 4.33	31-52	68.3 ± 5.9	0.644	0.000
	Intention		27.93 ± 2.97	19-35			
Coping strategy	PFC		21.77 ± 3.26	16-39	57.8 ± 8.8	0.036	0.734
	EFC		17.25 ± 3.63	11-27			
	AFC		18.78 ± 4.30	11-31			
Adversity Quotients	Control		19.32 ± 3.08	12-30	101.6923 ± 9.3	-0.217	0.039
	Origin		23.76 ± 2.66	14-31			
	Reach		23.59 ± 3.59	14-33			
	Endurance		35.02 ± 3.40	20-44			
Resilience					98.1209 ± 10.4		

The coping strategy total score ranged from 38 to 97 with the mean score was 57.80 ± 11.19. The mean score of coping strategy dimension namely PFC, EFC, and AFC were 21.77 ± 3.26, 17.25 ± 3.63, 18.78 ± 4.30 correspondingly. The adversity quotients total score ranged from 60 to 138 with the mean score was 101.69 ± 13.45. The mean score of adversity quotients dimension namely: Control, Origin Reach Endurance were 19.32 ± 3.08, 23.76 ± 2.66, 23.59 ± 3.59 and 35.02 ± 3.40 correspondingly. Spearman's correlation analysis showed that recovery self-efficacy (r= 0.644, P< 0.000) and adversity quotients (r= - 0.217, P< 0.039) were associated with resilience of ICU nurses whereas coping strategy (r = 0.036, P= 0.734) was not correlated to

Discussion

There was a strong correlation between recovery self-efficacy and resilience among dimension of recovery self-efficacy, self-believe (Mean ± SD = 40.44 ± 4.33) were the higher position compare to intention (Mean ± SD =27.93 ± 2.97). The researcher was found difficulties to explore similar research about the correlation between recovery self-efficacy and resilience. However, a study in China found that the resilience of nurses had a significant positive correlation with self-efficacy [20]. In addition, there was the previous study explained that resilience was predicted by self-efficacy [21]. Another study revealed that persons with low perceived self-efficacy tend to experience self-doubt and anxiety when they encounter environmental demands [22]. It means that unable to maintain their resilience to an adverse event in their life. Recovery self-efficacy is related to one's belief in the ability to continue positive actions after making behavioral changes in a negative direction [18].

Recovery self-efficacy helps to gradually return to acting based on one's wishes. Beliefs become strong if individuals can regain control of their behavior after falling on negative behavior [18]. ICU nurses tend to experiences repeated stress caused by many factors. However, the level of stress is not constantly settled all the time but is influenced by the situation and various other factors that influence. Those who have recovery self-efficacy may have a higher resilience from adversity event that happened daily with different causes and different level.

In this study, the coping strategy of ICU nurses was not related to nursing resilience. This result supported another study that coping strategy did not impact on resilience among young offenders in custody[21]. Another study conducted to sports performer indicated that resilience scores correlated positively to task-oriented coping and negatively to disengagement- and distraction-oriented coping during both periods. Analysis of variance indicated that athletes with high individual resilient qualities reached higher scores in task-oriented coping, using to a lower extent disengagement- and distraction-oriented coping[16]. A study conducted to Latvian nurses indicated that more nurses use the "escape/avoidance"[1].

Since the level of stress was not constantly remain the same so nurses used difference strategy to cope with the situation. In addition, a study reveals that Intensive Care Unit nurses mainly adopted the strategy of denial[3]. It was found in this study that ICU nurses also used three types of coping strategy namely problem-focused coping, emotion focus coping and avoidance coping. However, emotion focus coping and avoidance coping used more compare to problem-focused coping. This may affect the correlation where emotion and avoidance focused coping may not effective coping strategies. Therefore, it may not be correlated with resilience.

In general, this study revealed that adversity quotients had a correlation with the resilience of ICU nurses. This result support similar study conducted to a patient with cancer that there was a correlation between adversity quotient and resilience [23]. In addition, this study showed that ICU nurses had an endurance score (mean ± SD = 35.02 ± 3.40) higher than other adversity dimensions, namely control, origin and ownership, and reach (mean ± SD = 19.32 ± 3.08, 23.76 ± 2.66, 23.59 ± 3.59 respectively). This score shows that nurses who have good endurance will have better resilience because endurance involves someone's resistance to dealing with various adversity.

Conclusion

Resilience among ICU nurses was correlated with recovery self-efficacy and adversity quotients. Thus, enhancing their capacity in terms of recovery self-efficacy and adversity quotients may improve the resilience of ICU nurses. Management of the hospitals may provide training to improve Adversity Quotation training and recovery self-efficacy for ICU nurses regularly to enhance resilient capacity. In addition, there were limited experimental studies were found

about improving the nurses' resilience. Therefore, it was important and necessary to conduct studies to analyze and improve nurses' resilience that possibly prevented such extreme consequences of stress exposure such as burnout, compassion fatigue, and vicarious traumatization.

Ethical Clearance: Ethical approval was obtained from the ethics committee of the three hospitals. Voluntary, confidentially, fair and harmless ethical principles were occupied in this study.

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Conflict of Interest: None

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