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Article · November 2014

DOI: 10.14574/ojrnhc.v14i2.260

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What Do Indonesian Nurses Want? Retaining Nurses in Rural and Remote Areas of Indonesia

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Abstract

Introduction: Lack of nurses in rural and remote communities of Indonesia has been a major concern of national and provincial governments. Given that imperative the Ministry of Health implemented (MoH) the Special Assignment initiative which assigned nurses in underserved communities This study examine factors that influenced participants in the program to remain (retention) in their assigned rural setting.

Methods: Survey techniques were used to collect data from a convenience sample of 140 nurses enrolled in the initiative. Variables included age, gender, marital status, financial incentives and non-financial incentives. Descriptive and correlation statistics were used to analyze the data.

Results: Findings indicated that both financial incentives and nonfinancial incentives along with age correlated positively with nurses' intention to stay in the current rural setting. Non-financial incentives were as important for these nurses especially achieving employment security as a civil servant (government employee). Younger nurses seem to be more willing to work in rural and remote areas, which may be attributable to an individual seeking practice experience along with increased financial remuneration for doing so.

Conclusion: The findings of this study provide baseline descriptive information on the retention of nurses in Indonesia's remote and rural underserved regions. Providing an attractive incentive scheme by considering certain demographic characteristic can increase their intention to serve in rural and remote area.

Keywords: Nurse retention, Rural, Remote areas

What Do Indonesian Nurses Want? Retaining Nurses in Rural and Remote Areas of Indonesia

Globally, one of the most complex challenges for national governments is having an adequate supply of health care providers who can deliver services to those living in rural and remote locations (World Health Organization [WHO], 2010). Indonesia, in particular, has critical shortages of physicians, nurses and midwives (World Bank, 2009). Regarding access to basic health care services, of Indonesia's 497 district/cities, 83 districts located within 27 provinces lag behind. Ninety-two districts in the outermost small islands and 34 small outlying islands do not have even basic services (Ministry of Health [MoH] of Indonesian, 2012a, 2012b). Sustaining an

adequate and effective health professional workforce in rural and remote parts of Indonesia is crucial to address the health care needs of people who live in those regions, and a stated priority in the Government of Indonesia's National Workforce Development Plan (GINWDP) for 2010-2014 (MoH, 2010a). The GINWDP sponsored a *Special Assignment Initiative* that involved strategic placement of doctors, nurses and midwives in underserved rural and remote areas of this widely dispersed nation. The Ministry of Health (MoH's) regulations included the following criteria for nurse participation (Kurniati & Efendi, 2012; MoH, 2010b):

- Provision of travel expenses along with additional incentives (financial and non-financial)
- Placement for a minimum of three months at a particular site, but this time frame could be extended.
- A minimum level of Diploma III nursing education preparation.

The initiative has been in place for approximately two years however there has been no evaluation of the program. Given the information deficit related to the initiative, the researchers of this study were interested in examining factors that contributed to the retention of nurses in underserved rural and remote areas of Indonesia.

Purpose

The purpose of this study was to examine factors affecting nurses' retention in rural and remote areas of Indonesia. Variables to be examined included nurses' age, gender, marital status, financial incentives, non-financial incentives and retention. Financial incentives included an additional monthly monetary award that was over and above the nurse's base salary. Non financial incentives consisted of employee benefits including housing, health insurance, transportation, and an opportunity to become a government employee.

Methods

Setting

Rural and remote areas have been defined by the Ministry of Development of Remote Areas of Indonesia and Ministry of Health of Indonesia. Based on this official definition, districts in which nurses were assigned and included in this study were Sumatera Utara, Kepulauan Riau, Bengkulu, Kalimantan Barat, Kalimantan Timur, Sulawesi Tengah, Sulawesi Utara, Nusa Tenggara Timur, Maluku and Papua.

Instrument

Survey methods were used to obtain data from nurses who were enrolled in the *Special Assignment* initiative. The survey tool was developed by the two authors (FE; AK), and consisted of a cover page with demographic information; and, a second page that included three subsections, each having six items, to be rated by respondents on a 5-point Likert-type scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree). The first subsection focused on financial incentives; the second subsection focused on nonfinancial incentives; and the third subsection included items focusing on Nurse Retention.

Protection of Human Subjects

Anonymity of respondents was addressed by the researchers with the use of numerical assignment to each survey instrument.

Sample & Procedure

Potential subjects were identified from the MoH nursing database for the *Special Assignment* initiative. Out of a possible 210 nurses in the initiative, a convenience sample of 140 nurses was recruited to participate in the study. The survey instrument was hand delivered to each subject by MoH personnel while making a site visit to the nurse in the rural setting. At that

time, the MoH representative officially invited each nurse to complete. Who, in turn, returned the questionnaire in a sealed envelop which had no personal identification to the representative while on the site visit. Subsequently, the university-based researchers received the questionnaire directly from MoH representative upon her return from the rural site visit.

Analysis & Findings

Table 1

Demographic Characteristics (N = 140)

Data	Number	Percentage (%)
Gender		
Male	32	22.9
Female	108	77.1
Age		
≤25	108	77.3
≥26	32	22.7
Salary		
500,000-1 million IDR	75	53.6
>1 millions IDR	65	46.4
Financial Incentive		
1-2 millions IDR	8	5.7
>2 millions IDR	132	94.3
Non-financial incentives		
Yes	27	19.3
No	113	80.7

The analysis of Pearson's correlation (Table 2) indicated three independent variables were positively related to nursing retention namely age and nurses retention ($r = 0.208$; $p = 0.013$), retention and financial incentives ($r = 0.821$, $p = 0.000$) and between retention and non-financial incentives ($r = 0.826$, $p = 0.000$) incentives ($r = 0.826$, $p = 0.000$).

Table 2

Pearson Correlation Result

Variable	Retention	
	r	p
Age	0.208*	0.013
Gender	-0.062	0.464
Financial incentives	0.821 (**)	0.000
Non-financial incentives	0.826 (**)	0.000

** Correlation is significant at the 0.01 level (2-tailed)

* Correlation is significant at the 0.05 level (2-tailed)

Multiple regression analyses determined how much of nurses' retention was predicted by financial incentives, nonfinancial incentives, age, gender, and marital status. As shown in Table 3, the model variables accounted for 75.6% of the nurses' retention variance. Financial incentives ($\beta = 0.460, p < 0.001$), non-financial incentives ($\beta = 0.428, p < 0.001$), and younger age ($\beta = -0.112, p < 0.05$) were significantly related to nurses intention to stay or remain in the workplace. Gender and marital status were not significantly related to willingness of retention (Table 3).

Table 3

Multiple Regression Model of Nurses' Retention

<i>Predictors</i>	<i>β</i>	<i>T</i>
Financial incentives	.460***	5.465
Nonfinancial incentives	.428***	5.092
Age	-.112*	-2.105
Gender	-.008	.167
Marital Status	.014	.264
$R^2 = 0.756$		
$F (df = 7, 132) = 58.479***$		

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (2 tailed)

Discussion

This study provided insights into factors that contribute to nursing retention in rural and remote Indonesia. Indonesia has a high rate of unemployment. Latest data from Jawa Timur province shows that unemployment rate for nurse in this region has reached 10,800 per year (Mulyono, 2012). In this study, younger nurses (77.3%) as in table 1 seem to be more willing to work in rural and remote areas. Some experts attribute this finding to traditional Indonesian cultural advocating individual responsibility to work with the underserved. One could speculate that this finding may be attributable to an individual seeking nursing practice experience coupled with increased financial remuneration for doing so.

Nursing is a predominately female profession but there are no precise data related to the gender of nurses in Indonesia. Consistent with other studies, variance between males and females along with their marital status did not seem to impact retention for nurses in this study (Dieleman & Harnmeijer, 2006; Dussault & Franceschini, 2006; Lehmann, Dieleman, Lexomboon & Matwa, 2005; Shields & Price, 2002; Tai, Bame, & Robinson, 1998). Given the preponderance of females in the nursing workforce it is important to understand the specific needs to retain both women as well as men in the rural and remote areas. For example, family considerations often are important factors in career choices, but these may vary between males and females. There is a paucity of research that focuses on gender and marital status and the retention of nurses in rural and underserved regions, particularly in underdeveloped nations (Dussault & Franceschini, 2006). The majority of nurses (85%) in this study indicated 'single status', on the one hand they may have had had fewer immediate family responsibilities; thus allowing them to participate in this initiative which offered additional financial incentives. Conversely, one could speculate, a nurse may have had family responsibilities that could benefit from a higher salary coupled with the employer fringe benefits.

In the analysis of the data, financial incentive was significantly associated with retention of nurses in the program. As the financial incentive increased, so did the respondent's interest in remaining at his or her assigned location. Internationally, financial as well as nonfinancial incentives are widely used to recruit, retain and motivate an employee, and nurses are no exception. However, financial incentives may not be what motivate some nurses to relocate to a rural remote or underserved area. For some, nonfinancial benefits may be preferred and considered motivating forces (Van de Pas, 2010; World Bank, 2009; WHO, 2010;). More specifically, non-financial incentives were at least as important for nurses in this study especially

achieving the security of employment as a civil servant (government employee). The benefits of being a civil servant include health insurance coverage, retirement pays and remuneration for travel and housing costs. Civil servants may also receive a monthly supply of rice in lieu of a financial incentive. Data were absent as to the number of nurses in this study who achieved civil servant status as part of participation in the *Special Assignment Initiative*. For Indonesia, the potential for civil servant status with the associated benefits may be the most significant strategies to entice nurses to serve in rural and remote areas.

Conclusion

This study was an initial effort to obtain baseline data about nurses who were assigned to work in rural and remote regions of Indonesia. The preliminary findings can offer provide insights about the demographic characteristics and incentives that may impact recruitment and retention in this Indonesian government-sponsored initiative targeting underserved rural and remote regions of this developing nation. Developing incentives package along with recruitment of younger nurse can increase their intention to serve in rural and remote area of Indonesia.

Supporting Agency

Faculty of Nursing Airlangga University Surabaya Indonesia

Acknowledgement

We would like to express our gratitude to Centre of Planning and Management Human Resources for Health, MoH, Indonesia for permission granted.

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