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## Effects of Self-Justification on and Nurses' Commitment to Reducing the Risk of Disease Transmission in Hospitals

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**Abstract:** The inconsistencies in nurses' behaviors when they are applying standard precautions is a problem that has great potential to expose them to infectious diseases. Accordingly, nurses must be determined to consistently implement standard precautions; however, nurses tend to believe that their previous actions provide an advantage because of reasons associated with self-justification. This study aimed to investigate the effects of self-justification and the commitment of nurses to reducing the risk of disease transmission in hospitals. This observational analysis applied a stratified random sampling technique that was used to enroll 123 participants. The data were analyzed by simple linear regression. The results showed that 72.1% of the nurses used external strategies of self-justification and had a weak commitment, while 52.7% of the nurses used a strategy of internal self-justification and showed a strong commitment. The simple linear regression results indicated that self-justification significantly influenced nurses' commitments to display contagion risk reduction behaviors ( $p = 0.000$ ). This finding implies that nurses should enhance their internal self-justification strategies when experiencing gaps in commitment or when performing unsafe behaviors, which could strengthen their commitment to change high-risk behaviors.

**Key words:** Self-justification, committed nurses, risk of transmission, infection diseases

### INTRODUCTION

Health workers are in the forefront of health care centers; thus, nurses are constantly exposed to many cases of various diseases, which is extremely risky to their health (Nopriadi, 2004). Infection control procedures can thus prevent the occurrence of dangerous diseases and can even prevent death. When prevention procedures are not applied properly, health workers are potentially exposed to blood when performing the role and functions of their everyday work; therefore, they are at a continual risk of contracting various diseases caused by bacterial and viral pathogens, such as HIV, hepatitis C virus and hepatitis B virus. The most common accident that occurs during the provision of health care is a nurse being pricked by a needle after injecting a patient (Spirita, 2009).

The World Health Organization (WHO) estimates that approximately 35 million health workers worldwide, about three million people each year, are exposed to blood-borne viruses (2 million to HBV, 900,000 to HCV and 300,000 HIV). This exposure is estimated to result in 16,000 individuals who become infected with hepatitis C, 66,000 with hepatitis B and 200-5000 with HIV (WHO, 2004). When health care workers are exposed to infection as a result of a workplace accident, the risk of developing an illness is 1% for fulminant hepatitis and 4% for chronic hepatitis (active) and 5% become carriers of the virus (Sjamsuhidajat and De Jong, 2005).

The Centers for Disease Control and Prevention (CDC) has reported 52 cases of health care workers who have contracted HIV as a result of workplace accidents. The International Council of Nurses (ICN) (2005) has reported that an estimated 19-35% of all deaths of health workers in Africa are caused by contagious infections acquired in hospitals.

Almost all emergency medical service (EMS) systems require a report to be made if a health care worker is exposed to blood and body fluids, as they are well aware of the risk of hepatitis and HIV. In addition, EMS personnel inconsistently practice standard precautions when treating patients or when sharing needles, such as not wearing gloves (17%) and not disposing of contaminated objects (19%), including needles (87%). A case study report that the rate of individuals recapping a needle has been found to be 40%: of those 1.4% a lancet stick and 4.5% needle stick (Harris and Nicolai, 2010). Inconsistent behavior in nurses when practicing standard precautions is thus a potentially huge problem that can cause nurses to be exposed to infectious disease; addressing this problem requires the determination of nurses to be constantly committed to performing standard precautions. However, nurses tend to believe that the actions they took previously provide an advantage for several reasons; these reasons can be used to justify an action in which nurses do not protect themselves from risks that enable disease

transmission. This trend is referred to as self-justification. This study aimed to investigate the effects of self justification and the commitment of nurses to reduce the risks of transmission diseases in hospital.

**MATERIALS AND METHODS**

This research comprised an observational analysis using a cross-sectional design and was conducted in two Provincial Government Hospitals of Type B in the city of Makassar; the two research sites were selected with consideration of the similarity of their standards and policies to minimize the differences in the health service facilities and capabilities, especially in nursing care.

The unit of observation was a nurse and 123 individuals were included using a stratified random sampling technique that sorted by the level of nurse education. Only the nurses who had graduated with a bachelor's degree (S1) were included because highly educated nurses have a larger desire to apply the knowledge and skills they possess.

The data were collected using questionnaires. Self-justification was assessed using an indicator variable for internal and external self-justification (Karavanov, 2006; Holland *et al.*, 2002). The questionnaire was developed from the results of preliminary research that was conducted using an open format to explore the reasons nurses were committed to and performed standard precautions; in addition, the researchers also thoroughly considered the potential reasons for nurses' self-justification that could arise. The variety of reasons collected through that process were then sorted and arranged into a construct to prepare a questionnaire on self-justification that consisted of a statement of internal self-justification, which were justifications of self that referred to nurses' reasons within themselves such as their fear, immunity, use of PPE and self-awareness, as well as a statement of external self-justification and self-righteousness, which were nurses' reasons that referred to factors outside of themselves, including vaccines, SOPs and sanctions. For the variable assessing commitment, the questionnaire was designed based on the theory view of point by using an indicator of intention (Brech *et al.*, 2009; Neff, 2012; Gillis *et al.*, 1998).

The data were analyzed by calculating the distribution of the frequency of single variables in percentages, which was then presented in a frequency distribution table. Bivariate analyses were performed to determine the relationship between the dependent and independent variables using a simple linear regression test.

**RESULTS**

Table 1 shows the characteristics of the respondents such as age, education and work base on the study site. The age of the respondents was divided into four age groups according to criteria from the Ministry of Health

Table 1: Characteristics of respondents

Respondent characteristics	Number	(%)
<b>Age (years)</b>		
<26	10	8.1
26-35	60	48.8
36-45	49	39.8
>45	4	3.3
<b>Sex</b>		
Male	25	20.3
Female	98	79.7
<b>Education</b>		
Bachelor (S1) Nursing	75	61.0
Nursing profession	47	38.2
Master's degree	1	0.8

Table 2: Effects of self-justification on and the commitment of nurses to reducing the risk of disease transmission in hospitals

Self-justification	----- Commitment -----				----- Total -----	
	--- Weak ---		--- Strong ---			
	n	%	n	%	N	%
External	49	72.1	19	27.9	68	100.0
Internal	26	47.3	29	52.7	55	100.0
Total	75	61.0	48	39.0	123	100.0
	p = 0.000		b = 0.494			

(MOH, 2009), namely late adolescence (<26 years of age), early adulthood (26-35 years of age), adulthood (36-45 years of age) and the initial period of being elderly (>46 years of age). The near majority of the respondents were in the age group of 26-35 years (48.8%) and a minority of the respondents were in the age group of >45 years (3.3%). Most respondents were female (as high as 79.7%) and 20.3% of the respondents were men. The education level of the respondents showed a majority of nursing S1 degrees (61%).

Table 2 shows that the respondents who reported more external self-justification tended to have a weak commitment (72.1%) and that the respondents who had internal self-justification tended to have a strong commitment (52.7%). The value of significance (p) to determine whether there was an association between the variables was based on a benchmark value of  $\alpha = 0.05$ ; the results indicated a  $p < \alpha$  and thus it was concluded that self-justification had an effect on nurses' commitment to reducing the risk of disease transmission in hospitals. The beta coefficient (b) was used to determine the contribution of the effect of self-justification on the commitment of nurses and was equal to 0.494, or 49.4%.

**DISCUSSION**

The decisions made by nurses to reduce high-risk behaviors and to increase safe behavior require commitment. The commitment of nurses to perform safe behavior at work was determined by their determination (intention) to change their high-risk behavior. The results regarding the effect of self-justification on nurses'

commitment ( $p = 0.000$ ) showed that self-justification contributed as much as 49.4%. These results were supported by the data concerning the frequency distribution of the nurses, which showed that those who used the strategy of external self-justification tended to have a weak commitment to ensuring the prevention of transmission, while the nurses who used internal self-justification tended to have a strong commitment to the prevention of transmission.

The strategy of internal self-justification can be enhanced when nurses uphold the principles of universal precaution, which requires health care workers to assume that all patients are exposed to or infected with microorganisms, with or without signs and symptoms, so that a uniform level of prevention can be used when treating all patients (Boyer, 2009). These universal precautions require nurses to be able to act with the support of the facilities and infrastructure as well as a Standard Operating Procedure (SOP) that regulates universal precautions. Health workers should be protected from the risk of contracting diseases to be able to perform optimal work Mahardini (2010).

Empirical evidence has shown a trend in which nurses feel uncomfortable when using PPE because it restricts their movement and sometimes their ability to grip. Though nurses should be able to adapt to these conditions, PPE as a means of self-protection is very important to use in the line of duty. A study conducted by Sahara (2011) showed that when PPE is available, it provides 5.87 times the opportunity for nurses to comply with standard precautions by increasing the commitment of nurses to behave safely. Chrysmadani (2011) found that some nurses do not use personal protective equipment when working. Still, there are some nurses who do not use gloves or masks when performing nursing activities, such as when taking blood samples or providing blood infusions.

In a series of studies, Staw and colleagues (Staw, 1976; Staw and Fox, 1975; Staw and Ross, 1978) used the framework of self-justification to investigate the concept of how decision makers become more committed to a course of action. Staw (1976) found that in the context of organizational behavior, commitment was influenced by personal responsibility and the efficacy of the resources, not the idea of self-justification. However, in the research of Staw and colleagues, they used the theory of escalation of commitment in the context of organizational behavior and human performance. Moreover, the idea of self-justification has generally been used without specifically examining the strategy behind the idea.

Catania *et al.* (1990) argued that commitments are difficult for people at risk; the stage of decision-making is very influential on behavior change, as some outcomes can result in a firm commitment to address the problem, while another outcome is to wait for the problem to resolve itself (escape from trouble). To be

committed, individuals must undergo a complex process that involves the termination of one or more actions that are fun but risky and replacing those actions with one or more activities that are less fun but safer. The results of this study imply that nurses should further enhance their internal self-justification strategies when less commitment or when performing unsafe behavior; in this manner, justification can strengthen the commitment of nurses to change their high-risk behavior.

**Conclusion:** The commitment of nurses to show a reduction in the risk of disease transmission behavior was influenced by self-justification; the nurses who used the strategy of external self-justification tended to have a weak commitment to ensuring the prevention of transmission, while the nurses who used the strategy of internal self-justification tended to have a strong commitment to the prevention of transmission.

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