

## Relationship between Ethical Issues in Fall Prevention Care and Nurses' Characteristics

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### Abstract:

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**Objective:** This study aimed to identify the ethical issues related to fall prevention and nurses' personality and characteristics. **Methods:** This survey was conducted at 13 hospitals. Participants were nurses from various departments and were asked to complete and return their answered questionnaires within approximately 2 weeks of receiving it. Data were collected from the self-administered, anonymous questionnaires and were divided into four sections: background characteristics and ethical issues of fall prevention care, empathy, critical thinking, and work commitment. **Results:** A total of 414 nurses completed the survey, for an overall response rate of 74.5%. The mean score of the frequency of ethical issues related to fall prevention care for patients was 2.83. The mean score of the degree of stress was 3.00. Frequency and degree of stress, as well as years of nursing experience and job title, varied between males and females. **Conclusion:** This study indicated that many nurses face ethical or moral dilemmas and experience stress when it comes to providing fall prevention care. When nurses did not take on active roles as patient advocates and support patients' will, their awareness of ethical dilemmas increased. Frequency and degree of stress differed only by sex, years of nursing experience, job title, and empathy.

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**Keywords:** Ethical issues, fall prevention, hospitals, nursing ethics

### 1. Introduction

Nurses need to make ethical decisions to support patients' rights. Nurses increasingly face ethical issues in fall prevention due to the changing medical system that is varied and complex. I believe that all nurses should be sensitive to the ethical issues encountered when providing care, which will enable us to act as healthcare professionals. Falls are the most frequent adverse event in Japanese hospitals accounting for up to 19.3% of overall accidents, with 10% of the patients experiencing a serious injury or death (JCQHC, 2015). Falling also affects patients' family members, as well as the careers of the people who fall. The human cost of falling includes distress, pain, injury, loss of confidence, loss of independence, and mortality. Fall prevention care often includes the implementation of behavioral suppression, physical restraints, along with disturbing the free movement of patient. Nurses provide inpatient fall prevention care using various methods (e.g., walking aids, removal of obstacles around the bed, prohibition of patient movement and keeping floor surfaces clean and dry). Fall prevention care includes the assessment of fall risk and requires that appropriate measures are taken to prevent falls and fall-related injuries.

The restraint or control of patients and their potentially risky behavior introduces the ethical dilemmas associated with autonomy vs. non-maleficence. It is conceivable that the ethical issues faced in fall prevention care stem from three places: human rights, patient care, and team communication. Nurses are expected to act ethically, but not to the extent that moral distress or other stresses are caused; however, they often experience stress and are in a dilemma. Moral distress can cause high levels of work-related stress and low levels of job satisfaction if not adequately managed (Corley, 2002). The professional nursing competencies that support patient decision-making are recognized as ethical sensitivity, empathy, clinical judgment, and an established relationship of trust (Nojima et al., 2000). Based on the above opinion, it can be ascertained that the identification of ethical issues in fall prevention care are largely impacted by personal values.

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Moral distress induced by organizational problems that nurses' experience includes shortage of time, lack of administrators, direction for treating, organizational policy, and legal restrictions (Chambliss, 1996). It is suggested that issues related to team communication are more likely to be related to individual professionalism and personal position in the organization. As previously discussed, this study focused on the processes of individual nurses, such as sympathy, the ability to understand the patient, critical thinking related to assessment (collection and analysis of data), and commitment regarding expertise and organization.

## 2. Purpose

The study was conducted to identify the following: (1) ethical issues in fall prevention care in hospital settings and (2) relationship between ethical issues and personal characteristics of nurses (e.g., background characteristics, empathy score, critical thinking score, and work commitment score).

## 3. Methods

### 3.1. Study design

This study was descriptive and used survey methodology.

### 3.2. Participants

Thirteen hospitals were selected by random sampling from across Japan, and 555 nurses working in these hospitals were invited to participate. Thirteen hospitals received questionnaires; they were categorized as either established by a medical corporation or national and public hospitals with several medical departments. The median number of beds in each facility was 308 (range: 121–636 beds).

### 3.3. Data collection

Written information about this study was sent to nurse managers in the selected hospitals, and questionnaires with returnmail envelopes were distributed to the nurses by their managers. Participants were asked to return their answered questionnaire within approximately 2 weeks of receiving it.

### 3.4. Instruments

Data were collected using self-administered, anonymous questionnaires in Japanese. The questionnaire was divided into four sections: personal characteristics and ethical issues of fall prevention care for patient, empathy, critical thinking, and work commitment (Figure1).

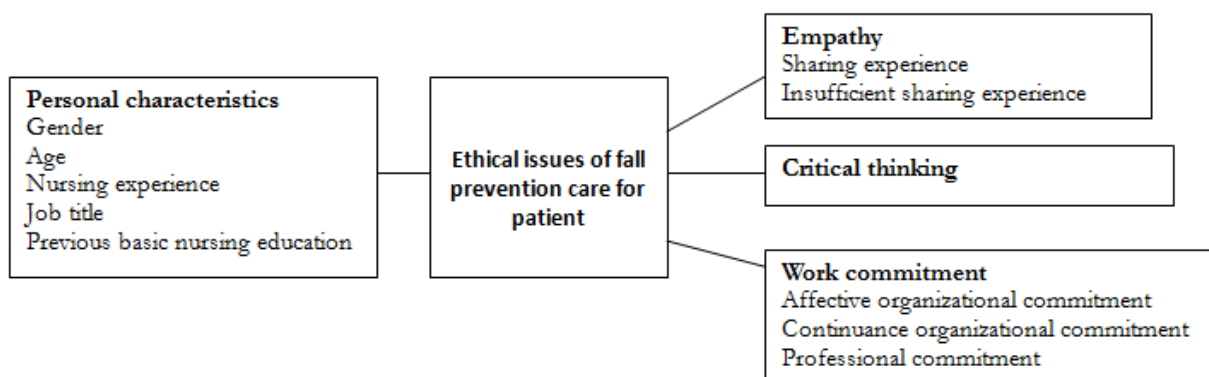


Figure1. Concept framework

#### 3.4.1. Background characteristics

Several variables were regarded as background characteristics, including sex, age, years of nursing experience, job title, and previous basic nursing education.

#### 3.4.2. Ethical issues of fall prevention care for patients

To clarify ethical issues related to fall prevention care of patients, respondents self-assessed their awareness of frequency (4-point scale: 1=never, 2=rarely, 3=occasionally, and 4=frequently) and degree of stress(4-point scale: 1=none, 2=low, 3=moderate, and 4=high).

Ethical issues experienced in specific situations were assessed using a 5-point scale (1=none, 2=low, 3=moderate, 4=high, and 5=very high), as developed by researchers based on theoretical knowledge of ethical issues of nursing practice (Chambliss, 1996/2002, Corley, M. C., 2002, Jormsri, P, 2005, Labbs, A. C., 2005). The 13-item questionnaire included items on human rights issues, patient care issues, and team communication issues. Content validity was ensured by using a three faculty of nursing. A pretest of the questionnaire was conducted with 12 nurses who met the inclusion criteria at two hospitals. The purpose of the pretest was to evaluate the validity of construction and scale setting. The findings from the pretest did not show potential problems. To avoid response biases, the participants in the pilot study were not included in the main survey. The internal consistency reliability measure calculated in this study was the Cronbach's alpha ( $\alpha$ ) and its acceptable level was 0.70 (Peterson, 1994). Cronbach's alpha for ethical issues in different situations was 0.87.

### 3.4.3. Empathy

Empathy was measured using the Empathic Experience Scale Revised (EESR) that was developed in Japan (Kakuta, 1994). EESR is comprises 10 items related to sharing experience (SE) and 10 to insufficient sharing experience (ISE) and a 7-point rating scale. The empathy type (double-dominant, dominant of SE, double recessive, dominant of ISE) was assigned using the SE and ISE scores. Cronbach's alpha was 0.89 for SE and 0.93 for ISE.

### 3.4.4. Critical thinking

Critical thinking has been widely regarded as an important concept in nursing practice. Critical thinking is an essential component of precise communication, problem-solving ability, theoretical and conceptual understanding of nursing concerns, and the knowledge base of nursing (Kemp, V.H., 1985). A 26-item self-assessed critical thinking scale was developed by Tamura (1997), wherein critical thinking was measured on a 5-point scale. This scale was internally consistent by developer ( $\alpha=0.94$ ).

### 3.4.5. Work commitment

This study adapted a scale of work commitment from Nakamura (2008). The scale measured affective organizational commitment (seven items), continuance organizational commitment (five items), and professional commitment (four items). Commitment was defined as a force that binds an individual to a course of action of particular relevance to one or more targets and can take different forms, such as desire (affective commitment), perceived cost (continuance commitment), or obligation (normative commitment) (Meyer, 2001). Professionals must feel worthy enough to their careers be highly committed to their work. Morrow (1983) suggested that an individual's work commitment includes professional commitment, but that it is antithetical to organizational commitment. Thus, commitment can be defined in multiple ways. Since the purpose of my study was to assess ethical issues in nursing practice and was related to work commitment, I chose a scale to measure this commitment that included affective commitment (AC), continuance commitment (CC), and professional commitment (PC). This scale was internally consistent (AC:  $\alpha=0.84$ , CC:  $\alpha=0.89$ , PC:  $\alpha=0.89$ ).

## 3.5. Ethical considerations

This study was examined and approved by the regional ethics review board. All potential participants received a general letter of introduction including acceptance or refusal instructions; consent was assumed if the survey document was completed and returned to the research team, and answers were anonymous.

## 3.6. Data analysis

Statistical analysis was performed to clarify ethical issues. Data was analyzed using IBM SPSS ver.22 statistical software for windows (IBM Corporation, Armonk, New York, USA). Descriptive statistics included frequencies, means, standard deviations, and correlations. For data obtained from scaled assessment, ANOVA was used with Bonferroni post hoc testing. For all comparisons, a two-sided statistical significance level of 0.05 was used.

## 4. Results

A total of 414 nurses completed the survey for analysis (response rate, 74.5%). As seen in Table 1, most respondents were female (95.1%) and staff nurses (76.9%). The mean score of frequency of ethical issues related to fall prevention care of patients was 2.83 (Standard deviation 0.68). The mean score of degree of stress was 3.00 (Standard deviation 0.78). Frequency and degree of stress varied based on sex, years of nursing experience, and job title.

**Table1. Relationship between ethical issues and personal characteristics**

	n (%)	Frequency		Degree of stress	
		Mean	Standard deviation	Mean	Standard deviation
<b>Age (year)</b>					
20-25	59 (15.3)	2.59	0.83	2.58	0.88
26-30	85 (22.1)	2.85	0.65	2.92	0.79
31-35	72 (18.7)	3.07	0.68 *	3.10	0.73 *
36-40	50 (13.0)	3.16	0.51 *	3.28	0.54 *
41-50	84 (21.8)	2.95	0.64 *	3.10	0.77 *
> 51	32 (8.3)	3.03	0.54 *	3.13	0.75 *
Missing data	3 (0.8)				
<b>Sex</b>					
Male	14 (3.6)	3.07	0.62	3.43	0.51
Female	366 (95.1)	2.93	0.68	2.99	0.79
Missing data	5 (1.3)				
<b>Nursing experience (year)</b>					
< 1	11 (2.9)	2.55	1.04	2.45	1.04
1-3	40 (10.4)	2.65	0.77	2.68	0.83
4-6	64 (16.6)	2.70	0.71	2.78	0.86
7-9	49 (12.7)	3.02	0.63	3.08	0.79
10-12	51 (13.2)	3.20	0.63 † ‡	3.20	0.63 †
13-15	36 (9.4)	3.03	0.51	3.11	0.57
> 16	130 (33.8)	2.98	0.61	3.12	0.75 †
Missing data	4 (1.0)				
<b>Previous basic nursing education</b>					
Nursing school	324 (84.2)	1.29	0.73	1.29	0.69
Junior college	21 (5.5)	1.26	0.64	1.23	0.61
College	29 (7.5)	1.19	0.57	1.29	0.52
Graduate school	2 (0.5)	1.31	0.67	1.29	0.67
Missing data	9 (2.3)				
<b>Job title</b>					
Staff	296 (76.9)	2.87	0.68	2.92	0.79
Sub-manager	47 (12.2)	3.09	0.58	3.19	0.68
Manager	32 (8.3)	3.31	0.54 §	3.47	0.57 §
Other	3 (0.8)				
Missing data	7 (1.8)				

ANOVA followed by Bonferroni post hoc testing, \*P < 0.05, \*\*P < 0.01,

Frequency rating: 1= Never, 2= Rarely, 3= Occasionally, 4= Frequently

Degree of stress ratings: 1= None, 2= Low, 3= Moderate, 4= High

\*: significantly different from 20-25 (Age)

†: significantly different from 1-3 (Nursing experience)

‡: significantly different from 4-6

§: significantly different from staff (job title)

Regarding specific situations where in responders were most frequently aware of ethical issues, the mean score of providing care that patient did not want was 3.90; lack of time to provide care that led to a patient's behavioral suppression was 3.84; and care was selected because the nurse no choice but to follow a doctor's order, despite it not providing effective patient care was 3.59. The scores that were lower constantly needed to assist with mobilization, providing care that was unfocused among the care team, and activities of daily living (ADL) had weakened due to the behavior restriction. The correlation between ethical issue and some other variable showed log correlation (Table 2).

**Table 2. Relationship between Ethical Issues and Characteristics**

	M ean	S tandard d evelopment	C orrelation coefficient					
			S E	I S E	C T	A C	C C	P C
<b>n an rights issues</b>								
Constantly assist with mobilization	2.28	0.97	.11 *	.01	.04	-.02	-.08	-.02
Monitoring the behavior at elimination	3.48	1.06	.10 *	.00	.10	.02	.04	.06
ADL had weakened due to restriction the behavior	3.57	1.06	.19 **	.04	.13 *	.06	.04	.03
<b>ient care issues</b>								
Restriction the behavior by using nurse call sensor alert system	3.03	1.12	.19 **	-.01	.06	.01	.01	.01
Provide care that patient didn't want to do	3.90	1.05	.19 **	.05	.12 *	.14 **	.09	.02
Lack of time to provide care, led to patient's behavioral suppression	3.84	1.06	.16 **	.03	.13 *	.13 **	.08	.09
Care methods was hard to select the most effective care due to provides staff's incompetence	3.36	0.96	.13 *	-.02	.12 *	.04	.07	.01
Fall risk was difficult to predict	3.29	1.06	.07	-.01	.15 **	.03	-.02	.01
Hospital's opinion of safety management was high expectations	3.24	1.04	.23 **	.05	.14 **	.07	.01	.03
<b>m communication issues</b>								
Provide care unfocused among care team	2.98	1.00	.23 **	.05	.11	.10	.02	.05
Select care had no choice to follow doctor's order, it was not providing effective care for patient	3.59	1.06	.25 **	.10	.07	-.02	.03	-.06
Provide care was depending on by staff	3.32	1.00	.24 **	.09	.08	.13 *	.09	.05
Effort for care was unappreciated by associate co-workers	3.20	1.10	.18 **	.13 *	.04	-.08	-.05	-.04

SE: Sharing experience, ISE: Insufficient sharing experience, CT: Critical thinking, AC: Affective organizational commitment, CC: Continuance organizational commitment, PC: Professional commitment, \*P < 0.05, \*\*P < 0.01

## 5. Discussion

This study conducted a survey that specifically focused on ethical issues related to fall prevention care and not overall nursing care. This study results showed that many nurses were aware of moral issues and showed that these issues were related to care being against the will of patients or one that was more dependent upon the experience of the healthcare provider as opposed to the patient. It is conceivable that nurses tended to have high levels of awareness related moral issues when they did not take roles as patients' advocates and support them.

In cases wherein colleagues were unable to provide safe and reliable care, results were relatively similar to those of other studies and nurses reported the following: "work with nurses or other healthcare workers who are not as competent as the patient care requires," "assist a physician who, in my opinion, is providing incompetent care" (Woods et.al, 2015). Fall prevention care is associated with activities, and the availability of resources such as humans or equipments directly relates to the quality of care.

A previous survey showed that the most stressful issues for nurses were related to staffing patterns that negatively affect work (Ulrich, 2010). Similarly, one of the stressful issues in this study was the lack of time to provide care, making a nurse put full restraints on a patient's activity. There is a possibility that nurses feel stress when own care are limited by colleague. Moral distress has been shown to be caused by providing poor quality care or futile care (Schluter, 2008); it causes mental pressure to the nurse providing poor quality care.

The item (assisting with mobilization constantly) of the lowest frequency was 2.5. Although it is possible to change the way one feels about the issues frequently faced and related ethical sensitivity, the findings of this study suggested the possibility that nurses could not commit to providing flexible care in response to a patient's ever-changing needs. In this study, there was not much recognition related to the moral issues about ADL. This suggests that moral issues are difficult to aware about care to maintain patient's activity. In specific situations in which the responders were mostly aware of ethical issues, the mean scores of providing care that a patient did not want was 3.90; the lack of time to provide care, leading to patient's behavioral suppression, was 3.84; and selecting care because there was no choice but to follow doctor's orders, despite not providing effective patient care was 3.59. The mean scores of items that skewed lower were related to issues such as constantly assisting with mobilization (2.28), unfocused care provided by the healthcare team (2.98), and ADLs weakened due to behavior restriction (3.03).

The moral issues specifically occurring in fall prevention that relate to monitoring by sensor call suppression and excretion are thought to be due to the fact that these are issues that may lead to decreased or infringed upon autonomy and/or dignity. Although not directly restraining the body, sensors and nurses sometimes take the place of restraint equipment. In Japan, the use of sensor systems, present conditions that infringe upon patients' rights, and the number of busy nurses are increasing rapidly. It is necessary to secure a safe method to control patient's activity; there is certainly room for improvement of the system, such as developing a method that is suitable to human characteristics such as an instrument that does not infringe upon the patient's right. The results indicate the personal characteristics affecting moral issues were empathy, age, and years of nursing experience.

As the nurses who responded were >30 years, they were faced with a high frequency and strong degree of stress, potentially indicating that there is a relationship between the frequency of moral issues faced and the degree of stress and age. Many nurses complete basic nursing education at about 20 years of age; therefore, the age of the study participants, i.e., 30 years, indicated a higher frequency of moral issues and stress. It can be extrapolated that moral issues and stress increase after 10 years of work experience. Furthermore, because the manager has a higher frequency of confrontation and more stressful experiences than nursing staff, it is suggested that there may be a relationship between ethical sensitivity concerning occupational development and fall prevention. Nurses who are in contact with patients who do not have stable activity daily were also considered likely to have decreased sensitivity due to too much experience.

There was no relationship between critical thinking or commitment and ethical issues about fall prevention. It is thought that frequency and degree of stress differed only by sex, years of nursing experience, job title. In particular, it is considered that follow-up nurses' stress does not necessarily evolve to moral distress or conflict as nurses with 10–12 years of experience or those >30 years are frequently and strongly faced with ethical problems in fall prevention. Based on the relationship between ethical issues and professional development of nurses, a futures study of relationships to overall nursing competencies, and not nursing competencies such as critical thinking, should be conducted.

## 6. Limitations

As my study was conducted using a questionnaire survey, it can be assumed that the nurses who participated and responded were highly conscious of ethical issues; therefore, the sample size itself might be responsible for some imbalances within the research. This study was limited to nurses at particular facilities (those established by a medical corporation or national and public hospitals with several medical departments); additionally, there is not information that further clarifies the relationship between the issues of occupational safety regarding ethical distress, conflicts, and the ethics of fall prevention. Further research is required to examine the support for nurses aged >30 years, so as to explore the relationship between moral distress and personal characteristics. Going forward, further studies are required to construct educational methods for nurses who do not significantly affect ethical conflict in practice related to fall prevention care of patients.

## 7. Conclusion

It appears from this study that many nurses face moral issues and experience distress while providing fall prevention care to patients. When nurses did not take on the role of patient's advocate and supported patients' will, their awareness of ethical issues skewed high. Frequency and degree of stress about fall prevention care differed with respect to sex, years of nursing experience, and job title. Despite empathy, critical thinking, and work commitment not being related to ethical issues, it is believed that empathy affects ethical sensitivity.

Future research on specific subjects who reflect the results of this study should investigate the cause of ethical issues and develop a support system involving human resources or equipment.

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