Research Article

Development and Psychometric Evaluation of the Moral Commitment Scale for Thai Baccalaureate Nursing Students (MCS-Thai)

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Abstract

The aim of this study was to develop instrument and examine its psychometric properties of MCS-Thai. Mixed method was used in this study. Random samples of 809 baccalaureate nursing students in Thailand were participated. The 112 items with a 5 Likert-scale was processed to exploratory factor analysis. Principal components analysis with varimax rotation was performed. Content validity index of the MCS-Thai was examined by five experts. The item-level content validity index (I-CVI) ranged from 0.8-1.0. The scale content validity index with universal agreement (S-CVI/UA) was .90 and scale content validity index with average (S-CVI/Ave) was .92.

The results revealed that MCS-Thai account for 47.7% of variance and factor loadings ranged from .45-.68. The results contained 6 factors 81 items comprising of: (1) respect patient's privacy and keeping patient's information confidential (22 items), (2) respect for patients (25 items), (3) providing care equally to each patient (9 items), (4) causing no harm to patients (12 items), (5) doing good for patients (8 items), and (6) telling the truth to patients and healthcare team (5 items). Findings supported internal consistency reliability, alpha coefficients ranged from .84 to .95 of each factor and total scale of .98. Hypothesis testing was supported construct validity (r=.54, p<.01) and test-retest method was supported stability reliability of the scale with high correlation (r=.77, p<.01). The MCS-Thai is a valid and reliable instrument for assessing moral commitment in nursing students for designing nursing curriculum and cultivating moral behavior to achieve high standard nursing care.

Keywords: moral; moral commitment; nursing student; psychometric evaluation; scale development

Introduction

The nursing profession requires ethical conduct of nurses in their nursing practice. Ethics in nursing has always reflected the care of nurses which is an important part of moral identity which may tend to reflect on moral actions.[1,2] The qualities of care that can be considered as aspect related to ethical principles are active listening, understanding in communication, responsibility, respect for others, and acting confidentially.[3] Commitment is an intrinsic factor that stimulates an individual to take a course of action and make a promise both to oneself and others to do the best they can which will result in the attainment of goals.[4,5] A commitment, like a promise, is a guarantee factor that one will follow, or refrain from the following action with certainty. The person who intends to do something must resolve to achieve a particular outcome and must also act in some ways that will accomplish their acheivement.[6]

Moral commitment depends on the intrinsic factors in each person, and a high commitment zone is placed by honesty with the positive orientation of deep compassion.[7] Moral commitment is one of four vital elements from the model of morality which was proposed by Rest[8] who claimed that people with high moral commitment will put their moral values higher than others and perform moral actions. Moral commitment is a prerequisite of nurses in performing ethical behaviors which can be described as a moral responsibility and the obligation of nurses for maintaining, protecting, and promoting the patient's dignity.[9,10] Good nursing care aims to enhance the dignity of humans in all dimensions and also succeeds in realizing this intention in practice.[9] High moral commitment in nursing students significantly correlates with the performance of moral action while providing care to patients.[3] It can be concluded that nursing students will perform the moral actions to which they have committed to.[11] The commitment to act of nurses underpins ethical principles revealing understanding the difference between right/wrong and feeling free to perform moral actions while providing care to patients.[12]

The daily actions of nurses can engage them in promoting the moral interest of patients. Nursing students with moral commitment will make an effort to focus on consistent behaviors and carry out moral actions despite obstacles.[2,13] According to Fitzsimons and Kelley,[14] nursing students will not give up and strive to keep the goal of nursing excellence. Facilitating factors which will enhance moral commitment include personal attributes, environmental influences, and a learner relationship system.[15] Moral commitment in nursing students can be cultivated through role models and nursing ethics education.[16-21] Assessing moral commitment will be useful for guiding nurses and nurse educators in order to enhance and cultivate moral commitment in baccalaureate nursing students.

An intensive review was undertaken by searching for literature published in the electronic databases of CINAHL, PubMed, ScienceDirect, SpringerLink, and ProQuest from 2006-2017. The studies of ethics have focused on ethical dilemmas in practice, ethical challenges, ethical climate, and moral distress.[22] There was little research that was related to moral commitment. Accordingly, MacRenato[23] used a phenomenological method to explore conducted the definition of moral commitment through the experience of the participants. Another study about moral commitment by Sjöstedt et al.[10] who explored the moral commitment of nurses to patients in a psychiatric setting. However, there was no study about moral commitment in nursing students, particularly no existing instrument has been developed underpinning the concept of moral commitment.

Nursing education aims to prepare nursing students as good human beings to provide a high

standard of care.[24] In Thailand, the philosophy and objective of nursing education for baccalaureate nursing students are focused on morals.[25] The moral commitment scale (MCS-Thai) can be used to assess moral commitment for preparing Thai nursing students, which is differentiated from other moral tools. The results of the development and psychometric evaluations of the MCS-Thai will provide benefit for Thai nursing education and the nursing profession in the future.

Objectives of the study

1. To develop the Moral Commitment Scale for baccalaureate nursing students in Thailand (MCS-Thai)

2. To evaluate the validity and reliability of the Moral Commitment Scale for baccalaureate nursing students in Thailand (MCS-Thai)

Research questions

1. What are the components of the Moral Commitment Scale for baccalaureate nursing students in Thailand (MCS-Thai)?

2. How valid and reliable is the developed Moral Commitment Scale for baccalaureate nursing students in Thailand (MCS-Thai)?

Conceptual Framework

The conceptual framework of this research is composed of: 1) ethical principles, 2) a concept of moral commitment, 3) moral commitment to the patient, and 4) focus group discussion from senior nursing students that resulted in issues to be extracted for questionnaire items.

The conceptual framework for MCS-Thai is shown in Figure 1

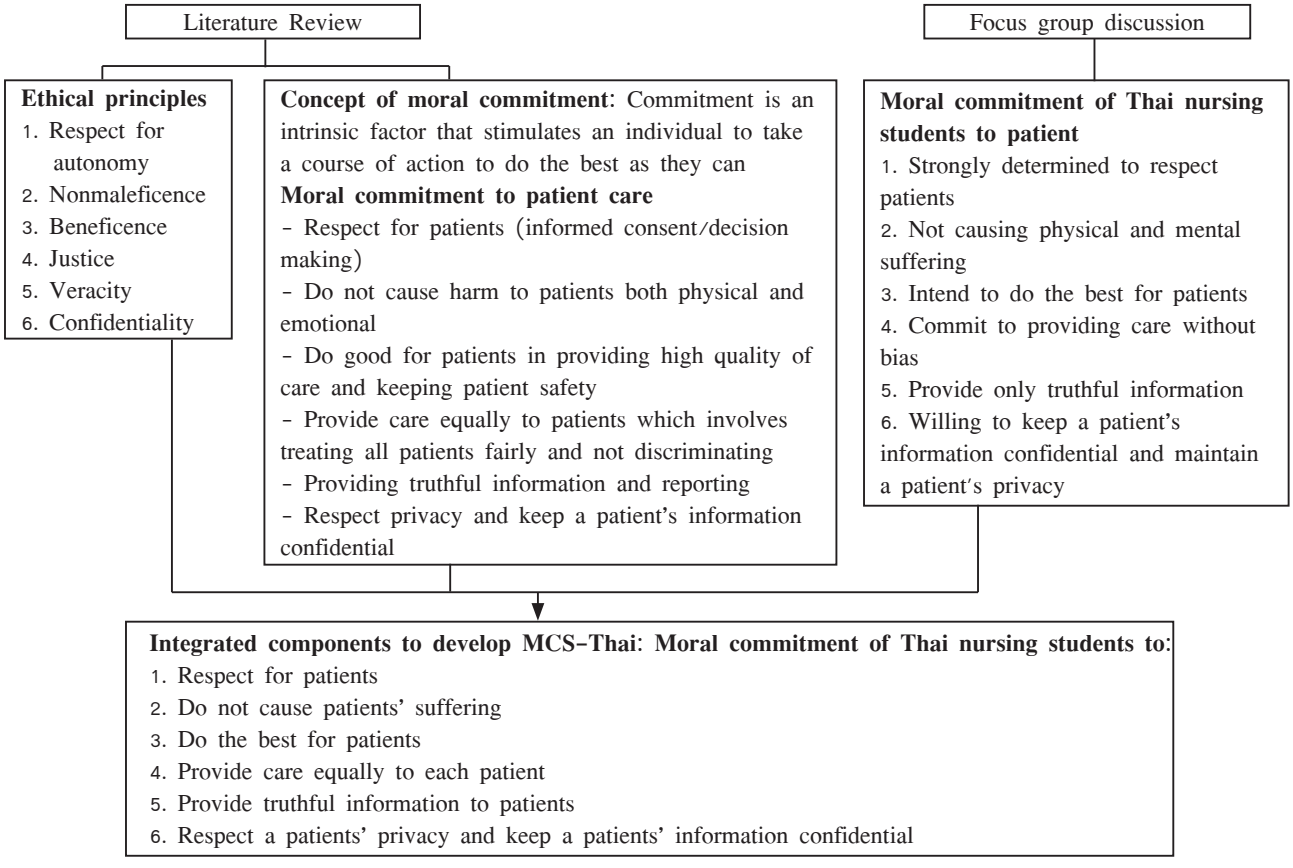

Figure 1 Conceptual framework of the MCS-Thai

Methods

The scale development guidelines of DeVellis[26] and Waltz, Strickland & Lenz[27] were used to develop the MCS-Thai in this study.

Setting and Sample

The settings for this mixed and quantitative study were nursing schools that were randomly selected from each region (Central, North, North-East, East, and South) of Thailand. The sample was senior baccalaureate nursing students who were able to communicate in Thai. Eight hundred and nine participants were recruited in this study.

Ethical Considerations

The research proposal was reviewed and approved by the Social and Behavioral Sciences Institutional Review Board (IRB) of Prince of Songkla University code PSU IRB 2017 - NSt 008. Before collecting the data in each step, a cover letter related to the protection of the rights of human subjects was composed which explained the objectives of this study, the voluntary nature of participation, assurances of the samples' confidentiality and anonymity by using a coded number on each questionnaire, and the benefit of the findings for the nursing profession. The return of a questionnaire was treated as consent to participate. The researcher provided her name, phone number, and email address for direct contact if any sample wanted to withdraw from this study after agreeing to participate.

Procedure

The study was divided into two phases. Phase 1: the development of the MCS-Thai. This phase comprised: content domain determination items generation, and scale format determination. Phase 2: the psychometric evaluation of the MCS-Thai. This phase comprised: content validity determination, pre-testing to evaluate reliability, administration to study sample, and the final testing for construct validity and stability reliability.

At the content domain determination step, the researcher carried out focus group discussions of 45-60 minutes with ten of fourth year baccalaureate nursing students. The informed consent form was given to the participants and permission also was sought to tape record the interviews. Hypothesis testing was used to examine the relationships between the moral commitment and professional nursing values. The Nurses Professional Value Scale-Revised (NPVS-R) identifies the components based on the *Code of Ethics*, values, and professional values. Scale items are rated using a 5-point Likert scale that ranges from 1 to 5 (not important to most important), with scores between 26 and 130 for the total 26 items. A higher level of internalized professional nursing values is indicated by higher scores.[28,29]

Test-retest method was used to test stability reliability of the measurement. The MCS-Thai was administered two times to the same group of senior nursing students within a two week period. The results of the reliability coefficient reflected the extent to which the measure ranks the performance of the participants in this study.

Data Collection

Data collections were divided into two phases: preparation phase and implementation phase.

Preparation phase

The researcher contacted the Dean/Director of the nursing schools to ask for permission to conduct the research. Ten nursing schools were randomly selected from the list of names of fourth year baccalaureate nursing students composed of the two Central region nursing schools, two North region nursing schools, two North-East region nursing schools, two East region nursing schools, and two South region nursing schools. The researcher sent the letter asking for permission to collect data with the research proposal, which was previously approved by the Social and

Behavioral Sciences Institutional Review Board (IRB) of Prince of Songkla University code PSU IRB 2017 - NSt 008, to the Dean/Director of a faculty of nursing and a college of nursing in each region. After receiving permission from each nursing school, the researcher started to collect the data. However, human protection subject form needed to be administered to all participants.

Implementation phase

The researcher mailed 1,100 questionnaires and letters, containing the human protection subject form, instructions to answer the questionnaire, the demographic data form, and the MCS-Thai (version 3) to the Dean/Director of each nursing school. The name list of participants was compiled by the nurse coordinators who were contacted by a letter which included the questionnaires. All questionnaires were distributed to the participants and the completed questionnaires were returned within four weeks to the researcher by the nurse coordinators of each nursing school.

Data Analysis

Demographic data were analyzed by descriptive statistics using frequency and percentages. Item analysis was used to examine the correlations of each item with the total item. Internal consistency reliability was evaluated using Cronbach's alpha coefficient. The principal components analysis using exploratory analysis with varimax rotation was performed to determine the construct validity of the MCS-Thai. The criteria for items evaluation of factor structure were based on 1) an eigenvalue is ≥ 1, 2) the scree plot tests criterion data points above the break, 3) the percentage of variance explained at ≥ 50% of the total scale and equal or greater than 5% for each factor, 4) factor loading cutoff point at ≥ .30, 5) theoretical interpretability, 6) parsimony, and 7) internal consistency of each factor and the total scale at ≥ .70.

Results

Six themes from focus group discussions with ten senior nursing students were drawn using thematic analysis. The results illustrated moral commitment to patient care as expressed by the nursing students which comprised 1) strongly determined to respect patients, 2) not causing physical and mental suffering, 3) intend to do the best for patients, 4) commit to providing care without bias, 5) provide only truthful information, and 6) willing to keep patients' information confidential and maintain patients privacy. Then, the researcher integrated the components of moral commitment of nursing students to patient care which consisted of 1) respect for patients, 2) do not cause patients' suffering, 3) do the best for patients, 4) provide care equally to each patient, 5) provide truthful information to patients, and 6) respect patients' privacy and keep patients' information confidential. The six components of moral commitment to patient care formed the content domain for item pool generation.

Content Validity Assessment

Content validity index of MCS-Thai version 1 was examined by five experts. The item-level content validity indices (I-CVIs) ranged from 0.80 to 1.00, S-CVI/UA (universal agreement) was 0.90, and S-CVI/Ave (average) was 0.92. At the end of this step, twenty-five items were deleted as they were unclear, not relevant, or not concise, resulting in 113 items.

Exploratory Factor Analysis

The Kaiser-Meyer-Olkin (KMO) and the Bartlett's test of sphericity were tested as the assumptions of EFA. The Kaiser-Meyer-Olkin (KMO) represented sampling adequacy at .98. Bartlett's test of sphericity reflected the overall significance of high correlations within a correlation matrix (χ^2=56781.996, p< .01) which reflected the linear relationship of the variables. EFA with four to six factors were performed. After rotation, the MCS-

Thai with six factors consisting of 81 items with a total variance explained of 47.7% demonstrated the best solution. Moreover, all items had factor loadings ranging from .45-.68. The alpha coefficient of the total scale was .98 and each factor ranged from .84-.95.

The six factors were: (1) respect patient's privacy and keeping patient's information confidential (22 items), (2) respect for patients (25 items), (3) providing care equally to each patient (9 items), (4) causing no harm to patients (12 items), (5) doing good for patients (8 items), and (6) telling the truth to patients and healthcare team (5 items). The details are as follows:

Factor 1: Respect patients privacy and keeping patients' information confidential (22 items) had factor loadings ranging from 0.51-0.68 and accounted for 11.43% of variance with an eigenvalue of 39.82, and alpha coefficient of .95.

Table 1 Items, Factor loadings, percent of variance, Eigenvalue of Factor I: Respect Patient's Privacy and Keep Patient's Information Confidential (N=809)

Item no	Item statements (n=22)	Factor loading
1	I will carefully keep a patient's confidentiality during nursing care conferences	.68
2	I will keep a patient's secret if it will not harm others	.65
3	I will keep information confidential while recording a patient' s details	.65
4	I intend to keep a patient's secret without sharing with others	.64
5	I will not reveal patient's information to others without the patient's permission	.64
6	I will carefully keep patient's details confidential while reporting information to the next shift.	.63
7	I will not expose a patient's illness information to the others, besides health care members.	.63
8	I absolutely will not share any of the patient's information without permission from the patient.	.62
9	I will keep a patient's documents in a safe place.	.62
10	I will always ask a patient for permission before sharing his/her secret with others.	.62
11	If I have to show a patient's pictures for educational learning, I will hide the patient's name and characteristics.	.59
12	I will always ask what information that patient wants to keep confidential.	.58
13	I will not use a private telephone while talking about the personal information of patient.	.58
14	I will keep a patient's private information confidential.	.58
15	I will not mention a patient's name or patient's information in public.	.57
16	I will log out from the system immediately after I have accessed a patient's information from a computer.	.57
17	I will be careful not to expose the patient's body while providing care	.56
18	I will expose only the part of the patient that I am providing care for.	.55
19	I will give patient's information to the health care team for medical treatment and nursing care.	.55
20	I will not post a patient's information online.	.55
21	I will not post a patient's photograph online.	.52
22	I will not interfere with a patient's privacy unless it is related to their health.	.50
	Eigenvalue	39.82
	% of variance	11.43%

Factor 2: Respect for patients (25 items) had factor loadings ranging from 0.46-0.63 and accounted for 10.46% of variance with an eigenvalue of 4.86, and alpha coefficient of .93.

Table 2 Items, Factor loadings, percent of variance, Eigenvalue of Factor II: Respect for Patients (N = 809)

Item no	Item statements (n = 25)	Factor loading
1	I will provide care according to a patient's values and beliefs.	.63
2	I will help patients to make autonomous decisions as they wish.	.62
3	I intend to help patients to take action after they make decisions.	.61
4	I commit to advocate for patients when they cannot protect their rights.	.61
5	I commit to protect patients from being insulted.	.58
6	I am very determined to protect vulnerable patients such as children, elderly, and psychiatric patients.	.57
7	I will promote patient's actions according to religious beliefs if it does not violate others.	.57
8	I am ready to accept the different ideas of patients if they are conscious and authorized in making decisions.	.56
9	I will promptly listen to patients' complaints and/or their questions.	.55
10	I will give information to the patients until it matches their needs.	.55
11	Whenever I give information to patients, I have to reassess whether they can understand very well.	.54
12	I do not pressurize patients to do anything if they do not want to do.	.54
13	I am ready to accept if a patient refuses my suggestions.	.53
14	I will respect patients' ideas and decisions even though I may disagree.	.53
15	I intend to help patients to make decisions consistent with their values and beliefs.	.53
16	I will always respect a patient's rights even if the patient is in a coma stage.	.52
17	I try to seek health information from reliable resources to assist patients.	.52
18	I am pleased to provide repeated information until the patient receives a clear answer without feeling bored/annoyed.	.51
19	Before giving information, I have to ensure that the patient can perceive and understand it.	.50
20	Even though I disagree about patient's decisions, I will let him/her make decisions.	.50
21	I try to enhance family members to collaborate with health care team.	.50
22	I will cooperate with family members to search for a proxy person who can make decisions for the patient.	.49
23	I am pleased to provide repeated information until it is clearly understood by the patient.	.49
24	I will not try to use my ideas or beliefs to judge patients' thoughts or behaviors.	.47
25	I will give information every time when I provide care except in emergency cases for saving their life.	.46
	Eigenvalue	4.86
	% of variance	10.46%

Factor 3: Providing care equally to each patient (9 items) had factor loadings ranging from 0.47-0.65 and accounted for 8.74% of variance with an eigenvalue of 2.61, and alpha coefficient of .91.

Table 3 Items, Factor loadings, percent of variance, Eigenvalue of Factor III: Providing Care Equally to Each Patient (N=809)

Item no	Item statements (n=9)	Factor loading
1	I will provide care to all patients with the same nursing standards.	.65
2	I will honor all patients equally.	.64
3	I will help all patients under my care receive equal rights.	.62
4	I will try my best to help all patients to be treated equally.	.61
5	I will treat all patients equally, regardless of educational level or social status.	.57
6	I will use polite and friendly words with patients.	.54
7	I will provide care to patients of different races or religions without bias.	.54
8	I will provide gentle care to every patient.	.51
9	I will not discriminate in the care of a patient, even if they have a different opinion or belief.	.47
	Eigenvalue	2.61
	% of variance	8.74%

Factor 4: Causing no harm to patients (12 items) had factor loadings ranging from 0.45-0.58 and accounted for 5.99% of variance with an eigenvalue of 2.17, and alpha coefficient of .90.

Table 4 Items, Factor loadings, percent of variance, Eigenvalue of Factor IV: Causing No Harm to Patients (N = 809)

Item no	Item statements (n=12)	Factor loading
1	I will not get angry or irritated towards patients.	.58
2	I will not make patients feel more anxious while being admitted to hospital.	.58
3	I will never let patients suffer from my actions towards them.	.57
4	Even if a patient uses aggressive words and gestures towards me, I will keep calm.	.55
5	I am determined not to increase patients' pain from my nursing practice.	.51
6	I will not use techniques or solutions that will cause patients' more pain from wound dressing.	.51
7	I will not use suction techniques that cause suffering and pain to patients.	.51
8	I will not use words or actions that make the patient feel embarrassed or inferior.	.50
9	In case of intravascular injections, I will try to find the best way to reduce irritation.	.50
10	In case of sensitive groups such as AIDS patients, cancer patients, patients at the end of life etc., I will be careful in using words that may affect their feelings and emotions.	.50
11	I will not cause patient suffering because of my words.	.49
12	I will be careful while working in order to prevent patients from being harmed or disabled.	.45
	Eigenvalue	2.17
	% of variance	5.99%

Factor 5: Doing good for patients (8 items) had factor loadings ranging from 0.46-0.58 and accounted for 5.67% of variance with an eigenvalue of 2.04, and alpha coefficient of .88.

Table 5 Items, Factor loadings, percent of variance, Eigenvalue of Factor V: Doing Good for Patients (N = 809)

Item no	Item statements (n=8)	Factor loading
1	I intend to dedicate myself and time to help patients receive high quality care.	.58
2	I will take care of the patient throughout the duration of time, no matter how busy the work is.	.53
3	I am pleased and willing to take care of patients.	.53
4	I am committed to serving patients despite sacrificing personal happiness.	.53
5	I am ready to assist patients without being asked.	.50
6	I will take care of patients until I am sure that the patient is safe after medication is given.	.50
7	I will reveal understanding and concern to the patient.	.49
8	I will always cheer up the patients.	.46
	Eigenvalue	2.04
	% of variance	5.67%

Factor 6: Telling the truth to patients and healthcare teams (5 items) had factor loadings ranging from 0.46-0.56 and accounted for 5.42% of variance with an eigenvalue of 1.93, and alpha coefficient of .84.

Table 6 Items, Factor loadings, percent of variance, Eigenvalue of Factor VI: Telling the Truth to Patient and Healthcare Team (N=809)

Item no	Item statements (n=5)	Factor loading
1	I will provide clear and truthful information about patients' health until they understand very well.	.56
2	I have to assess the patient's ability to accept the truth such a bad news.	.54
3	I will report the mistakes of others.	.51
4	In cases where the patient needs information beyond my duties. I will coordinate with those involved in providing information to patients.	.49
5	I will write a nursing report on what I have done.	.46
	Eigenvalue	1.93
	% of variance	5.42%

Construct Validity Assessment

The construct validity of the MCS-Thai was tested using EFA and hypothesis testing. The EFA came up with six factors with 81 items, all factors had eigenvalues greater than 1 and most of them accounted for at least 5% of variance which was adequate. The hypothesis testing was supported by a statistically significant correlation between moral commitment and nursing professional value (r =.54, p<.01).

Reliability Assessment

The researcher performed internal consistency testing to assess the reliability of the 81-item MCS-Thai measuring the Cronbach's alpha coefficients of the total scale = .98 and the Cronbach's alpha coefficients of all factors ranged from .84-.95 which indicated a high reliability. The stability of MCS-Thai was examined using the test-retest method. The result showed correlation between the scores of moral commitment evaluated twice (r= .77, p<.01).

Discussion

The discussion of the findings is presented in two parts: 1) the components of the MCS-Thai, and 2) the psychometric properties of the MCS-Thai.

The total scale of the MCS-Thai

The MCS-Thai final version is composed of 81 items with 6 factors. The eigenvalues of all factors were all greater than 1.0; each factor ranged from 1.93-39.82 and was considered significant.[27,30,31] All items of the MCS-Thai were composed of high factor loadings ranging from 0.45-0.68 which indicated that all items have a high level to interpret the structure, and correlation among the items and also between the items and the factors were achieved.[29,28] The overall internal consistency of the 81 items of the MCS-Thai was .98 and ranged from .84-.95 for each factor which indicated high reliability. According to Polit and Beck[32] internal consistency of each factor and the total scale at equal or greater than .70 is usually acceptable. The total percent variance explained by the five factors was 47.7%. There may be some items in the questionnaire that are close in meaning as well as other factors that may have influenced the moral commitment of Thai nursing students. The same finding was observed in studies by Brasileiro et al.[33] which showed other dispositional coping mechanisms related to the Brazilian culture that were not addressed by the adapted instrument. Scherer et al.[34] claimed that a variance between 40% and 50% is considered sufficient in social science.

The six factors of the MCS-Thai

Factor I, "Respect patient's privacy and keeping patient's information confidential," The factor was labeled privacy and keeping as such because the item content reflected nursing students preservation of patients' confidentiality and concern for patients' privacy while using high technology or social media which can affect patients and their families.

Thai nursing students in this study perceived their moral duty to keep a patient's information secret as reflected in the item "I will carefully keep a patient's confidentiality during nursing care conferences." These than nursing students also reflected on moral commitment in keeping a patient's information confidential as in the statement in item "I will keep a patient's documents in a safe place." The results were in accordance with Finkelman and Kenner[35] who stated that nurses must remember that a patient's information is private and should not be discussed in public areas or any place. This was also supported by Paavilainen, Lepistö and Flinck[36] who found that it was very important to keep a patient's data in a safe place where others cannot read it. Furthermore, a patient's information should be kept in a safe zone in order to protect the patient's privacy. Thai nursing students have a moral commitment to respect a patient's privacy as reflected in the

item "I will not post a patient's photograph online." The results were consistent with Pessalacia et al.[37] who stated that nursing students carried out the data collection process with the intention of safeguarding patients' privacy.

Factor II, "Respect for patient," The items of the MCS-Thai in this factor showed the moral commitment of nursing students regarding providing information, respect for patient decisions based on the patient's values/ beliefs/ needs, and enhancing family members to cooperate in the health care of the patient.

Thai nursing students in this study felt committed to giving essential information to the patients until they clearly understood as demonstrated in the item "I will give information to the patients until it matches their needs." Pessalacia et al.[37] declared that nursing students demonstrated their respect for patients through supplying information facilitating patients to make informed choices on nursing care. Additionally, respect for a patient's decision making based on their values/beliefs/needs also needs to be considered in order to demonstrate respect for patients as stated in the item "I will provide care according to a patient's values and beliefs." According to Bandman and Bandman,[38] patients are entitled to accept or reject interventions on the basis of their personal values or own goals. This was also supported by Westrick[39] who stated that the nurse allows a patient to maintain their character, values, and uniqueness, regardless of the nurse's own values. In the Thai context, patients' families are the key persons while the patient is admitted in the hospital, and enhancing the family to make decisions in the patient's best interest is an inevitable issue. An example statement was stated in the item "I try to enhance family members to collaborate with health care team." This is supported by the study of Osterlind et al.[40] which showed that first year nursing students enhanced patients' families in order to make decisions for dying people at the end-of-life.

Factor III, "Providing care equally to each patient," This factor comprised item content regarding giving care without bias following the standards of nursing care to all patients, and providing care to patients without discrimination.

Giving care without bias following the standards of nursing care to all patients as nursing students stated in the item "I will provide care to all patients with the same nursing standards." According to Beauchamp and Childress,[41] the justice principle is interpreted as fair, equitable, and appropriate treatment in light of what is due to persons. This is also supported by Tarkel and Duval[6] who mentioned achieving the right balance of interests without regard to one's own feelings and without showing favor to any side in a conflict as fairness. Thai nursing students also reflected moral commitment to provide care without discrimination such as in the item "I will treat all patients equally, regardless of educational level or social status." This was in accordance with Myhrvold,[42] who proposed that health professionals can contribute to sufficiently fulfilling their duty without discrimination.

Factor IV, "Causing no harm to patients," These items are concerned with doing no harm to patients including pain and suffering, and emotional harm.

Thai nursing students in this study reflected on the moral commitment to do no harm to patients through providing care without causing pain and suffering as reflected in the item "I am determined not to increase patients' pain from my nursing practice." Papastavrou Andreou and Vryonides[43] found that nurses' actions and patients' needs could create a range of negative feelings such as discomfort and suffering, leading to significant negative consequences for both nurses and patients. Thai nursing students reflected moral commitment to do no harm involving

emotional harm as reflected in the item "I will not make patients feel more anxious while being admitted in hospital." This item took into consideration the emotional suffering of patients which supported by Dobrowolskai et al.[44] who pointed out that nursing students were aware of their limitations and the effectiveness of approaches to minimizing patients' anxiety.

Factor V, "Doing good for patient," The focus of this factor supported the content concerning providing high quality care and maintaining patient safety.

Thai nursing students in this study demonstrated moral commitment to providing high quality care for patients as reflected in the item "I intend to dedicate myself and time to help patients receive high quality care." According to Beauchamp and Childress,[41] in a healthcare setting, the beneficence principle is related to doing something good and caring for patients. Thai nursing students in this study also reflected caring as stated in the item "I will reveal understanding and concern to the patient." The item was also supported by Dobrowolskai et al.[44] who pointed out that nursing students made an effort in helping and were with their patients. Additionally, Thai nursing students tended to provide good nursing care to patients and assured that their patients were safe after a procedure or medical treatment, as reflected in the item "I will take care of patients until I am sure that the patient is safe after I have given medication." In such a duty, as a healthcare practitioner has a legal, moral, and professional obligation to serve the best interests of patients and protect the patients from any avoidable harm while providing care to them.[13,44,45]

Factor VI, "Telling the truth to patients and healthcare team," This factor is concerned with providing truthful information to patients and reporting based on fact.

Thai nursing students in this study reflected moral commitment to provide truthful information. This was precisely found in this study as stated in the item "I will provide clear and truthful information about patients' health until they understand very well." This was supported by the principle of veracity which is defined as the obligation to tell the truth and not to lie or deceive others.[18] This finding was in accordance with the study of Faghanipour, Joolaee, and Sobhani[46] who showed that it is necessary to provide essential information about the nature of the disease, type of surgery, benefits and importance of the surgery, and complications of rejecting surgery. Moreover, reporting based on fact is an important aspect of telling the truth by Thai nursing students in this study, and is reflected in the item "I will write a nursing report on what I have done." The item was supported by the evidence based the research of Wilk and Bowllan[47] which found that nursing students reported any clinical/ professional concerns of health care teams, were honest in reporting any mistakes, and reported any omissions of care.

Conclusion

The MCS-Thai, comprised of six factors among 81 items, shows high validity and reliability which were tested more than one method. Validity was performed using content validity and construct validity. The content validity obtained acceptable I-CVIs, S-CVI (UA), and S-CVI (Ave). The construct validity was performed using exploratory factor analysis (EFA) and hypothesis testing (details as show in page 10). Reliability was performed using internal consistency and stability. The results from validity and reliability support a satisfactory MCS-Thai.

Recommendations and Implications

The MCS-Thai is a valid and reliable tool to measure moral commitment for Thai baccalaureate nursing students. This scale can be used to assess moral commitment in nursing students in order to evaluate moral commitment and cultivating moral behaviors in Thai nursing students. Interestingly, the MCS-Thai may be used for the assessment of moral commitment in nurses for the patient's best interest and for providing a high standard of care.

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