

# Knowledge, Moral Attitude, and Practice of Nursing Students Toward Abortion

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## Abstract

In 2021, Thailand decriminalized abortions to allow for legal abortions on request up to 12 weeks' gestation and conditionally up to 20 weeks' gestation, or in the case of sexual assault, maternal mental or physical harm, or fetal abnormality. We intend to say that healthcare practitioners' positive attitudes toward abortion will destigmatize abortion for both themselves and their patients. We explored the knowledge, attitudes, and intended practices of nursing students toward safe abortion practices in light of the recent law reform. This was a cross-sectional study using a self-administered questionnaire. The questionnaire consisted of 4 parts: a demographic information questionnaire; and measures to assess their knowledge, moral attitudes, and intended practice regarding safe abortion care. Questionnaires were sent to 206 nursing students who had completed the Midwifery and Maternal-Newborn Nursing rotation in Bangkok, Thailand. The survey response rate was 90.8%. Mean (standard deviation) knowledge score was 6.72 (1.86) out of 10. Buddhist students were more likely to have a positive attitude toward abortions. Most students intended to practice safe abortions in pregnancies that affect maternal physical or mental health, or in pregnancies that resulted from unlawful sexual contact. Students were more ambivalent toward abortion practices for socioeconomic reasons. Better knowledge of abortion legislation was associated with a more positive attitude toward abortions and safe abortion practice intention. Approximately 1 year after the abortion law reform in Thailand, nursing students had incomplete knowledge of the amendment. Most students were inclined to provide abortion care services for certain conditions.

## Keywords

nursing student, abortion, termination of pregnancy, education, attitude, Thailand

### What do we already know about this topic?

Abortion care carries stigma and may cause internal conflict in healthcare providers involved. Safe abortion, while reducing maternal morbidity and mortality, carries much of the same stigma which leads to a negative attitude toward such care.

### How does your research contribute to the field?

This research explores nursing students' education and attitude toward safe abortion practices 1 year after abortion law reformation in Thailand.

### What are your research's implications toward theory, practice, or policy?

Nursing curriculum may benefit from emphasis on safe abortion care to facilitate better understanding and more positive attitude toward abortion after Thailand's law reform.

## Background

It has been estimated that there are 121 million unintended pregnancies per year globally, 61% of which end in abortion.<sup>1</sup> In the last 2 decades, the abortion rate in Thailand has increased by 53%, and the proportion of unintended

pregnancies ending in abortion have increased from 37% to 64%.<sup>2</sup> Before the new amendment to abortion law, it would be difficult to determine accurate estimates of the abortion rate in Thailand because of the illegal status of abortions and the associated social stigma.<sup>3</sup> Previous laws in Thailand



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restricted abortions to those performed by a medical practitioner in situations where pregnancy threatens the woman's health, or when pregnancy resulted from rape.<sup>4</sup>

In 2021, Thai abortion laws were reformed to allow abortions in the following scenarios: when pregnancy risks harm to the physical or mental health of the woman, when pregnancy may result in severe fetal abnormalities, or when pregnancy resulted from unlawful sexual contact as confirmed by the woman. The reformed law also permits induced abortions on request for pregnancies up to 12 weeks' gestation, and conditionally on request for pregnancies 12 to 20 weeks' gestation after comprehensive counseling from 2 healthcare providers.<sup>5</sup> Safe abortion services in Thailand were limited prior to the law reform and is subject to much stigma both from healthcare practitioners and the general public.<sup>6</sup> Abortion law amendment allows for wider access to safe abortion care; evidence shows that countries where the procedure is legalized show lower morbidity and mortality from abortions.<sup>7</sup> The World Health Organization abortion care guideline assigns nurses a significant role in the delivery of safe abortion care, from provision of information and counseling, assisting during medical or surgical abortions, to post-abortion care and contraceptive services.<sup>8</sup>

Abortion care is an extremely sensitive issue influenced by a number of cultural, religious, social factors.<sup>9</sup> A previous study in Southern Thailand showed that while most nurses can identify conditions where abortion would be legal under the previous law, only a fifth were knowledgeable about the reformed, less restricted abortion law.<sup>10</sup> Religious context also plays a role as Muslim and Buddhist nurses have differing attitudes toward safe abortion care.<sup>10</sup> Other studies show that nursing students exhibit different attitudes toward learning about abortion care based on diverse societal backgrounds.<sup>11</sup> Several misconceptions in abortion care still exists in Thailand both on the healthcare provider and patient side, including post-abortion contraception.<sup>12</sup> Determining nursing students' knowledge, attitudes, and intention to provide abortion care will contribute to developing the ability to provide quality nursing care in a morally complex situation. In the present study, we aimed to describe nursing students' knowledge, attitudes, and intended practice regarding abortions in light of the recent law reform in Thailand.

## Method

We conducted an institute-based cross-sectional survey of fourth-year nursing students in Bangkok, Thailand from

January 1, 2022 to February 28, 2022. Eligible students were all nursing students who had completed the course Midwifery and Maternal-Newborn Nursing in the allotted time. All nursing students who were eligible were included, and students who did not consent to participate were excluded. Students were given information on the background and objective of the study and were free to withhold consent without repercussions. Written consent was obtained prior to questionnaire distribution. Sample size was not calculated as we intended to invite all 206 nursing students in that year to participate.

## Questionnaire

The 4-part, self-administered questionnaire was designed to ensure participants' anonymity; participants filled out the questionnaire privately. The questionnaire was in Thai, as this is the native language for most of the nursing students. This version of the questionnaire was previously used in a study describing knowledge, attitude, and practice toward abortion in nurses.<sup>10</sup>

The first part consisted of questions regarding demographic data. Participants were asked about their gender, religion, and region of origin. Those identifying as female included individuals assigned female sex at birth and transgender women, and those identifying as male included individuals assigned male sex at birth and transgender men. Students were also asked about encounters with abortion cases during training and the specialties they intend to pursue.

Knowledge of abortion legislation was assessed with a questionnaire adapted from Bunnag and Silapanuntakul's<sup>13</sup> study on knowledge of abortion law among Thai physicians in published 2006. The questionnaire was originally in Thai language and was modified by experts in the field (Co-authors S. Santibenchakul and U. Jaisamram) according to the 2021 Thai legislation. The modified version of the questionnaire was validated in a previous study; the internal consistency reliability Cronbach's alpha coefficient was .70 and test-retest reliability was .90.<sup>10</sup> The knowledge part of the questionnaire consisted of 10 questions that were graded on a 3-point scale (agree, disagree, or unsure). Higher scores indicate better knowledge of abortion legislation and a score of >80% was considered good knowledge.

Attitude toward abortion was assessed with a 9-item questionnaire translated from English to Thai and adapted with permission from Baba et al.<sup>14</sup> Three items were supportive attitudes, 3 items were about conditional support of abortion practices, and 3 items were attitudes against abortion. Items

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were responded to using a 5-point Likert scale where 1=*strongly disagree* and 5=*strongly agree*. We reversed the scoring of the 3 items indicating attitudes against abortion; “strongly disagree” was assigned a score of 5 and “strongly agree” a score of one, therefore higher attitude score indicates a more positive view of abortion practices in all 3 categories. The lowest to highest possible moral attitude score ranged from 9 to 45. A mean score was then calculated from all 3 categories and used as a cutoff point for moral attitude favoring abortion. This version of the questionnaire was validated in a previous study; Cronbach’s alpha coefficient and test-retest reliability value were .8 and .9, respectively.<sup>10</sup>

The questionnaire to assess intended practice was modified from Bunnag and Silapanuntakul’s<sup>13</sup> study and adapted with permission from a study published by Baba et al<sup>14</sup> Intention to practice abortion was assessed with 13 short scenarios to which participants responded using a 5-point Likert scale (*strongly agree* to *strongly disagree*). This version of the questionnaire was validated in a previous study; Cronbach’s alpha coefficient and test-retest reliability were .80 and .90, respectively.<sup>10</sup> The questionnaire was approved by 2 experts in the field of family planning (Co-authors S. Santibenchakul and U. Jaisamran).

### Statistical Analysis

Statistical analysis was performed with STATA version 17 (StataCorp 2021, Stata Statistical Software: Release 17. College Station, TX: StataCorp LLC.). Continuous variables were calculated as mean and standard deviation, and categorical variables were calculated as number and proportion. Associations between demographic data and knowledge score were analyzed with linear regression. Fisher’s exact test was used to assess the associations between demographic data, knowledge score, attitude toward abortion score, and intended practice of safe abortion score.

### Results

Questionnaires were sent to all fourth-year nursing students (N=206) and 90.8% returned the questionnaire (N=187). Most (93.6%) of the participants identified as female. Mean age (standard deviation [SD]) of the participants was 22 (0.8) years. Almost all participants (89.3%) practiced Buddhism as their religion, with a relatively small proportion of Christians (1.1%), Muslims (3.2%), and None (6.4%). Most participants (68.5%) had never encountered an abortion case, 28.9% had seen one or 2 abortion cases, and 2.7% had seen more than 2 abortion cases (Table 1).

The mean (SD) score for knowledge of abortion legislation was 6.72 (1.86) out of 10, with 70 (37.4%) nursing students scoring >8 out of 10. Students most correctly identified statements that were unchanged statements from the previous legislation: 94.1% identified that only a physician can perform an abortion legally, and 93.1% and 92.5% correctly answered that it is legal to perform an abortion in

**Table 1.** Demographic Characteristics.

| Characteristic   | N (%)       |
|--|-------------|
| <b>Gender</b>  |             |
| Male or transgender men  | 7 (3.74)    |
| Female or transgender women  | 175 (93.58) |
| Other <sup>a</sup>   | 5 (2.67)    |
| <b>Religion</b>  |             |
| Buddhism   | 167 (89.30) |
| Christianity   | 2 (1.07)    |
| Islam  | 6 (3.21)    |
| None   | 12 (6.42)   |
| <b>Abortion cases encountered during fourth year nursing students training</b> |             |
| 0  | 128 (68.45) |
| 1-2  | 54 (28.87)  |
| >2   | 5 (2.67)    |
| <b>Childhood provinces (Region of Thailand) (&lt;12 years)</b>                 |             |
| Central  | 66 (35.29)  |
| Northern   | 24 (12.83)  |
| Southern   | 22 (11.76)  |
| Northeastern   | 41 (21.93)  |
| Eastern  | 28 (14.97)  |
| Western  | 6 (3.21)    |
| <b>Which specialties are you considering for your future work?</b>             |             |
| Obstetrics & Gynecology  | 27 (14.44)  |
| Internal Medicine  | 24 (12.83)  |
| Surgery  | 45 (24.06)  |
| Pediatrics   | 32 (17.11)  |
| Emergency  | 25 (13.37)  |
| Other  | 34 (18.18)  |

<sup>a</sup>Other included non-binary, gender fluidity, agender, and those who prefer not to say.

the case of rape or because of a woman’s physical health, respectively. While 64.7% identified the first trimester threshold for legal abortions, only 20.9% and 30.5% correctly answered the 2 questions pertaining to the second trimester gestation limit for legal abortions (Supplemental Table 1). Knowledge score did not vary significantly according to gender, religion, experience with abortion cases, region of origin, or intended specialty (Table 2).

Moral attitudes were assessed with statements viewing abortion in a positive way, agreeing with having an abortion in certain situations, and having unfavorable attitudes toward abortion. Students mean scores (SD) were 9.4 (2.4), 11.0 (1.8), and 11.8 (2.9) points respectively, with higher scores in each category corresponding to a positive attitude toward abortion (each of the 3 types of attitudes had a maximum scale score of 15 points). Most (87.2%) agreed with the statement “abortion is a woman’s right,” while few agreed with the statements that abortion is the same as murder, wrong, or sinful (13.8%, 6.4%, and 15.0%, respectively). While few (25.1%) agreed with abortion past 12 weeks’ gestation in any circumstances, most (71.7%) agreed with abortion past 12 weeks’ gestation in some circumstances (Supplemental

**Table 2.** Linear Regression Models of Students' Knowledge to the Amendment of Criminal Code of Thai Abortion Law (N = 187).

| Variable  | Mean difference (95% CI) | P-value |
|---|--------------------------|---------|
| Gender  |                          | .344    |
| Male/Transgender men  | Reference                |         |
| Female/Transgender women  | 0.69 (−0.73, 2.11)       |         |
| Other <sup>a</sup>  | 1.60 (−0.56, 3.76)       |         |
| Religion  |                          | .275    |
| Buddhism  | −0.76 (−1.86, 0.34)      |         |
| Other <sup>b</sup>  | −1.29 (−2.97, 0.39)      |         |
| None  | Reference                |         |
| Abortion cases encountered during fourth year nursing students training |                          | .269    |
| 0   | Reference                |         |
| 1-2   | −0.36 (−0.95, 0.24)      |         |
| >2  | 0.83 (−0.84, 2.51)       |         |
| Childhood provinces (region) (<12 years)                                |                          | .246    |
| Central   | −0.33 (−0.90, 0.23)      |         |
| Non-central   | Reference                |         |
| Which specialties are you considering for your future work?             |                          | .826    |
| Obstetrics & Gynecology or Pediatrics                                   | 0.06 (−0.52, 0.65)       |         |
| Other <sup>c</sup>  | Reference                |         |

CI = confidence interval.

<sup>a</sup>Other included non-binary, gender fluidity, agender, and those who prefer not to say.

<sup>b</sup>Other included Christianity, Islam, and none.

<sup>c</sup>Other included Internal Medicine, Surgery, and other.

Table 2). Higher knowledge score was significantly associated with agreement with the statement “Abortion is a woman’s right.” Religion associated with different attitudes toward abortion. Buddhist students were more likely to have a positive attitude toward abortion than those practicing Christianity or Islam (Table 3).

Participants were asked their intended practice regarding safe abortion services in different scenarios: maternal health conditions, fetal conditions, unlawful sexual contact, and socioeconomic conditions. Most participants agreed with the provision of an abortion for pregnancies with physical or mental conditions affecting the woman’s health (97.3% and 87.7%, respectively). However, they were ambivalent about abortions for those with maternal HIV infection. Most also agreed with abortion practice in conditions where there is a fetal defect that may result in a handicap or nonviability (84.5% and 94%, respectively). Most (94.7%) also agreed with abortion in the case of pregnancy resulting from sexual assault, and 71.6% agreed with abortion when pregnancy resulted from an incestuous relationship. Participants were more ambivalent about abortions for socioeconomic reasons such as lack of paternal involvement in the pregnancy, family completion, or contraceptive failure, except in pregnancy under the age of 15 where 63.6% agreed (Supplemental Table 3). Those with better knowledge of abortion legislation were

more likely to agree with intended practice of safe abortion in all situations, while religion was not correlated with intended practice. Those with positive attitudes (scores higher than the group mean of 32.2 points) were more likely to agree with intended practice statements (Supplemental Table 4).

## Discussion

Our study surveyed knowledge, moral attitudes, and intended practice of nursing students after the recent amendment of Thai abortion law. Most students correctly identified conditions for abortion that were legal in the previous legislation, but knowledge of the second trimester limit for legal abortion was lacking. Those with better knowledge of abortion legislation tended to view abortions more positively. Students tended to agree with the provision of abortion care for maternal and fetal health conditions, and in pregnancies resulting from sexual assault, but were ambivalent about abortions for socioeconomic reasons.

The recent amendment of Thai abortion law requires a shift in practices, both for women seeking care and healthcare providers. Our study shows that approximately 1 year after the law reform, most students correctly identified only conditions that were not changed from the previous legislation. When compared to our previous study conducted in nurses where only 18.7% of nurses had good knowledge scores,<sup>10</sup> there was a higher proportion of nursing students who had good knowledge score. Demographic characteristics were not associated with knowledge of abortion legislation, which is to be expected. The majority of participants had never encountered an abortion case but that did not affect their level of knowledge. However, less than half had good knowledge of the legislation, and knowledge of the new indications included in the new legislation was lacking. This presents an opportunity to fortify future curricula to emphasize decriminalized circumstances for abortions. Other studies<sup>13,15</sup> on healthcare providers in Thailand also showed that knowledge of abortion law was not ideal; however, most healthcare providers are receptive to acquiring knowledge of abortion care regardless of their stance on the practice.<sup>16,17</sup>

Our study found that better knowledge of abortion legislation was associated with a positive attitude toward abortion practice. Other studies that have implemented teaching programs also show this association.<sup>17,18</sup> Practitioners felt more supportive of safe abortion practices and were more inclined to provide such services after acquisition of training.<sup>15</sup> Participation of nurses in abortion care is one of the many barriers in provision of abortion care<sup>19</sup>; this finding is reassuring as it offers an opportunity to mitigate the stigma associated with abortion care.<sup>11</sup>

Religion played an important role in attitudes toward abortion, both in our study and in previous studies. We found that those who identified as Christian or Muslim were more likely to oppose abortion than those who identified as Buddhist. Surveys conducted with predominantly Muslim nurses in Southern Thailand found that they were more likely

**Table 3.** Proportion of Nursing Students Who Agree and Strongly Agree With Moral Attitude Statements on Abortion (N = 187).

| Conditions   | Religion              |                               |                  | Intended specialty |                          |                                 | Knowledge score |                        | P-value*   |
|--|-----------------------|-------------------------------|------------------|--------------------|--------------------------|---------------------------------|-----------------|------------------------|------------|
|  | Buddhist<br>(n = 167) | Other <sup>a</sup><br>(n = 8) | None<br>(n = 12) | P-value*           | OB-GYN &<br>Ped (n = 59) | Other <sup>b</sup><br>(n = 128) | P-value*        | Score ≥80%<br>(n = 70) |            |
| Supports abortion  |                       |                               |                  |                    |                          |                                 |                 |                        |            |
| Abortion can be a good thing in any circumstances.             | 24 (14.37)            | —                             | 2 (16.67)        | .661               | 10 (16.95)               | 16 (12.50)                      | .496            | 11 (15.71)             | 15 (12.82) |
| Abortion is woman's right.                                     | 147 (88.02)           | 4 (50.00)                     | 12 (100)         | .009               | 51 (86.44)               | 112 (87.50)                     | .818            | 67 (95.71)             | 96 (82.05) |
| Abortion is acceptable past 12+ weeks in any circumstances.    | 36 (21.56)            | 2 (25.00)                     | 9 (75.00)        | <.001              | 15 (25.42)               | 32 (25.00)                      | >.999           | 17 (24.29)             | 30 (25.64) |
| Conditional agreement  |                       |                               |                  |                    |                          |                                 |                 |                        |            |
| Abortion can be a good thing for some women in all situations. | 100 (59.88)           | 3 (37.50)                     | 12 (100)         | .003               | 39 (66.10)               | 76 (59.38)                      | .421            | 47 (67.14)             | 68 (58.12) |
| Abortion can be a good thing for all women in some situations. | 105 (62.87)           | 3 (37.50)                     | 11 (91.67)       | .031               | 38 (64.41)               | 81 (63.28)                      | >.999           | 42 (60.00)             | 77 (65.81) |
| Abortion is acceptable past 12+ weeks in some circumstances.   | 119 (71.26)           | 6 (75.00)                     | 9 (75.00)        | >.999              | 43 (72.88)               | 91 (71.09)                      | .863            | 50 (71.43)             | 84 (71.79) |
| Against abortion <sup>c</sup>                                  |                       |                               |                  |                    |                          |                                 |                 |                        |            |
| Abortion is the same as murder.                                | 21 (12.57)            | 5 (62.50)                     | —                | .001               | 6 (10.17)                | 20 (15.63)                      | .370            | 5 (7.14)               | 21 (17.95) |
| Abortion is wrong.   | 10 (5.99)             | 2 (25.00)                     | —                | .116               | 4 (6.78)                 | 8 (6.25)                        | >.999           | 3 (4.29)               | 9 (7.69)   |
| Abortion is sinful.  | 25 (14.97)            | 3 (37.50)                     | —                | .055               | 6 (10.17)                | 22 (17.19)                      | .272            | 7 (10.00)              | 21 (17.95) |

OB-GYN = Obstetrics & Gynecology; Ped = Pediatrics.

<sup>a</sup>Other included Christianity, Islam, and none.

<sup>b</sup>Other included Internal Medicine, Surgery, and other.

<sup>c</sup>Proportion of nursing students who disagree and strongly disagree with the against abortion statements.

\*Fisher's exact test.

to oppose abortions than their Buddhist counterparts.<sup>10</sup> Predominantly Muslim countries tend to have a less favorable view of abortions.<sup>20-22</sup> While all 3 religions consider abortions to be sinful in nature, Buddhism seems to have a gentler view than the other two.<sup>22,23</sup> Healthcare providers may experience moral distress and internal conflict when they encounter situations that oppose their religious beliefs; training programs that allow for open discussion and non-judgmental exchange develops moral resilience that improves knowledge uptake and more harmonious patient care.<sup>11,17,24</sup>

Students' intention to practice safe abortions reflects their knowledge of legalized abortion. They were receptive toward abortions performed for maternal or fetal indications, or in pregnancies resulting from sexual assault or incest, but were ambivalent about providing such care for socioeconomic reasons. A similar proportion of students agreed and disagreed with statements involving abortions where the woman feels they already have enough children, where the man will not support this pregnancy, or if the man refuses marriage. While there is limited literature describing reasons why women seek induced abortions, existing research indicates that the motivations for seeking an abortion are complex. Poor economic circumstances was the main motivation in women seeking induced abortions,<sup>6,25</sup> along with lack of spousal support and unstable family dynamics.<sup>26-28</sup> Studies indicate that most women in Thailand who sought abortions were married adults.<sup>3,29</sup> Upon decriminalization of abortion, such women seeking safe abortion care are likely to increase, which may create conflict with nursing students' intended practice.

Nurses play a significant role in shaping a woman's experience with abortion. They spend the most time with patients during the procedure and are an important source of support and comfort during an emotionally complex experience.<sup>30</sup> The findings of this study highlight the need to emphasize reformed Thai abortion laws in nursing education programs as increased knowledge is associated with a more positive attitude toward safe abortion care. Better knowledge and attitude may also contribute to less stigma toward patients and other healthcare providers involved in safe abortion care. Several misconceptions exist regarding safe abortion care in Thailand, including post-abortion contraception.<sup>12</sup> This, along with fostering open and non-judgmental dialog, allows for compassionate, thoughtful provision of care while upholding ethical principles individual to each practitioner. Further research on knowledge, attitudes, and practice regarding abortion care in nurses is needed, especially in changes across their career, and the impact of their experience with abortion cases.

The strength of our study lies with our robust response rate, ensuring an accurate representation of the year's class of nursing students. The measures used in our study were designed to assess multiple aspects of views on abortions and had been tested for their validity and reliability. The questionnaire was distributed after students completed the pertinent rotation, which ensured similar education status

prior to administration. There were also limitations to our study. We collected data from a single location, which limits generalizability of our findings to other regions in Thailand. The questionnaires were self-administered, which ensures anonymity but does not allow for elaboration if students do not understand the questions. Due to the nature of data collection, the association between knowledge, attitude, and intended practice may not be fully elucidated in this study. As abortion is an extremely sensitive issue, further qualitative studies may be required to elaborate on the association between knowledge, attitude, and intended practice in this population. As all of the students were included in this study, sample size calculation was not performed.

Further studies may be conducted with a more diverse sample population to examine the impact of religion and different practicing levels on attitudes toward abortions. As abortion practice is an extremely sensitive subject, in-depth interviews may allow for a clearer understanding of the attitudes of healthcare practitioners toward abortions and the factors that shape them.

## Conclusions

In light of the recent reformation of abortion legislation in Thailand, most nursing students were able to correctly identify indications for abortion that were previously legal but lacked knowledge of decriminalized abortion on request and the gestational age thresholds. Nursing students with better knowledge of abortion law tended to have a more positive attitude toward safe abortion care.

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## Ethical Considerations

The study protocol was approved by the Institutional Review Board, Faculty of Medicine, Chulalongkorn University (IRB# 406/64).

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## Supplemental Material

Supplemental material for this article is available online.

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