Vietnam Journal of Community Medicine, Vol. 67, English version No. 1, 2026, 220-224

KNOWLEDGE, ATTITUDES, AND PRACTICES REGARDING CONTRACEPTIVE METHODS AMONG FIRST – YEAR NURSING STUDENTS AT TRA VINH UNIVERSITY

Tran Van Boi[1], Ho Nhu Thach[1], Pham Minh Truong[2], Doan Van Hau[1*]

[1]Tra Vinh University - 126 Nguyen Thien Thanh Street, Hoa Thuan Ward, Vinh Long Province, Vietnam
[2]Ho Chi Minh City University of Education – 280 An Duong Vuong, Cho Quan Ward, Ho Chi Minh City

Received: 25/04/2026
Revised: 14/05/2026; Accepted: 27/05/2026

ABSTRACT

Objective: To describe the knowledge, attitudes, and practices regarding contraceptive methods among first – year nursing students at Tra Vinh University.

Subjects and methods: A descriptive cross-sectional study was conducted on 231 first-year nursing students enrolled at Tra Vinh University in 2024.

Results: The study was conducted among first-year nursing students, with the majority aged 19 years (96.5%) and 78.8% belonging to the Kinh ethnic group. Overall, 94.4% of students reported being interested in contraceptive methods, and 100% demonstrated knowledge of at least one contraceptive method, including condoms (96.1%), oral contraceptive pills (81%), and intrauterine devices (59.7%). There were 60.6% of students believed that no contraceptive method is completely safe, and 65.4% agreed that contraceptive use is the best option during sexual intercourse; however, they also expressed concerns about the side effects of emergency contraceptive pills. Only 6.1% reported using contraception during their first sexual intercourse. Condoms were the most commonly preferred method (60.7%).

Conclusion: First-year nursing students at Tra Vinh University demonstrated good knowledge and attitudes toward contraceptive methods; however, their practical application remains suboptimal. It is therefore necessary to integrate sexuality education and reproductive health education into the curriculum, and to establish student clubs focusing on this topic for students, particularly in medicine and pharmacy-related disciplines.

Keywords: Contraceptive methods; students; nursing; Tra Vinh University.

1. INTRODUCTION

Reproductive health is one of the most important issues facing young people. Arcoding to Vietnam's Ministry of Health, The mean age at first sexual intercourse among individuals aged 14–24 years was 18.7 (2017). Knowledge of fertility among adolescents aged 10–24 years remains limited. Among female respondents aged 15–24 years, the abortion rate was 18 per 1,000, accounting for 9.2% of those who had ever been pregnant. The unmet need for modern contraceptive methods was approximately 30% overall and reached 48.4% among unmarried females aged 15–24 years. Although 83% of adolescents had heard of male condoms and 63.4% correctly understood their purpose, only 26% knew how to use them properly [1].

These figures suggest a significant gap in knowledge and practices related to safe sex among aldolescence and young adults, particularly university students, who are at a stage of transition into adulthood characterized by substantial psychological, emotional, and behavioral changes, as well as an increasing need to understand safe sexual practices. In an increasingly open social context, equipping students with knowledge of contraceptive methods is essential not only for protecting reproductive health but also for reducing the risk of unintended pregnancy and its associated consequences. According to a study by Nguyen Minh Khang [2], the proportion of students engaging in premarital sexual intercourse has been increasing; however, not all of them possess adequate knowledge and skills to use contraceptive methods safely and effectively.

Access to and use of contraceptive methods remain hindered by multiple barriers, including insufficient sexuality education in schools, feelings of embarrassment or hesitation, social stigma, and family-related influences. As a result, many students seek information from informal or unverified sources, thereby increasing the risk of misinformation and unsafe practice. Against this background, the present study was conducted to assess first-year nursing students' knowledge, attitudes, and practices regarding contraceptive methods, with the aim of proposing measures to improve awareness and support students in accessing safe and appropriate contraceptive options.

2. MATERIALS AND METHODS

2.1. Study design

This study employed a descriptive cross-sectional design.

2.2. Study time and setting

The study was conducted from April 7, 2025 to June 16, 2025 at the Department of Nursing, School of Medicine and Pharmacy, Tra Vinh University.

*Corresponding author
Email: dvhau@tvu.edu.vn **Phone:** (+84) 827671768 **Https:**//doi.org/10.52163/yhc.v67iE1.5247

2.3. Study participants

The study population consisted of first-year nursing students enrolled at Tra Vinh University.

2.4. Sample size and sampling method

A total enumeration approach was used. All 231 first-year nursing students at Tra Vinh University were included in the study.

2.5. Study variables

The collected information included the following:

- General characteristics of the participants: year of birth, sex, hometown, place of residence, ethnicity, and relationship status.

- Knowledge: awareness of and ability to identify contraceptive methods; knowledge of the timing and correct use of contraceptive methods; understanding of emergency contraception; and knowledge of potential effects and side effects.

- Attitudes: perceptions regarding the effectiveness, necessity, and safety of contraceptive methods.

- Practices: sexual experience; use of contraceptive methods at first sexual intercourse; types of contraceptive methods previously used; sources of information; and the need for further information.

2.6. Data collection instrument

The data collection instrument consisted of four sections with a total of 41 items, including: 6 questions on general characteristics, 20 questions assessing knowledge of contraceptive methods, 6 questions assessing attitudes toward contraceptive methods, and 9 questions assessing practices related to contraceptive methods.

2.7. Data analysis and processing

Questionnaires were checked prior to data entry. Questionnaires with substantial missing information were excluded where appropriate. The data were then entered into Microsoft Excel and analyzed using SPSS software.

Descriptive statistics: Frequencies and percentages were used to summarize qualitative variables.

2.8. Ethical considerations

The study was approved on ethical grounds under Approval No. 80/GCN.ĐC-HĐĐĐ, dated April 24, 2025, by the Biomedical Research Ethics Committee of Tra Vinh University.

3. RESULTS

3.1. General characteristics of the study participants

Table 1. Demographic characteristics of the study participants (n = 231)

Characteristic	Category	n	%
Sex	Male	45	19.5
	Female	186	80.5
Age	19	223	96.5
	20	6	2.6
	21–22	2	0.9
Ethnicity	Kinh	182	78.8
	Khmer	46	19.9
	Chinese	3	1.3
Current living arrangement	Living with family	74	32.0
	Living with partner	5	2.2
	Living with friends	51	22.1
	Living in a dormitory	28	12.1
	Living alone	73	31.6
Place of origin	Tra Vinh	169	73.2
	Other provinces	62	26.8
Relationship status	Previously had a partner	21	9.1
	Currently has a partner	87	37.7
	Never had a partner	123	53.2

The majority of participants were 19 years old (96.5%) and female (80.5%). Most students were from Tra Vinh Province (73.2%). Regarding current living arrangements, 32.0% lived with their families, 31.6% lived alone, 22.1% lived with friends, 12.1% lived in university dormitories, and 2.2% lived with their partners.

With respect to ethnicity, most first-year nursing students were of Kinh ethnicity (78.8%), followed by Khmer students (19.9%) and Hoa students (1.3%). Regarding relationship status, 53.2% reported that they had never had a romantic partner, 37.7% were currently in a relationship, and 9.1% reported having had a partner previously.

3.2. Students' knowledge of contraceptive methods

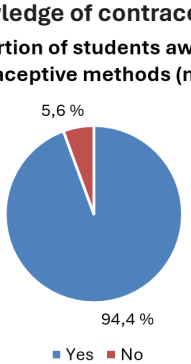


Chart 1. Proportion of students aware of contraceptive methods

The majority of students had knowledge of contraceptive methods, accounting for 218 participants (94.4%), while 13 students (5.6%) lacked such knowledge.

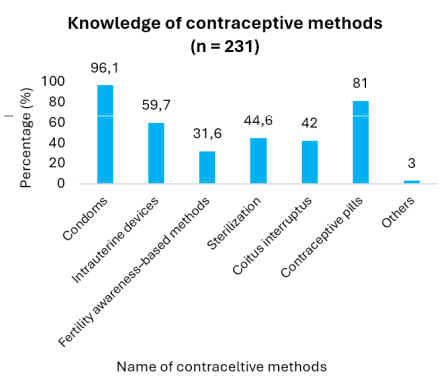


Chart 2. Knowledge of students about contraceptive methods.

Students demonstrated good knowledge of condoms as a contraceptive method (96.1%), followed by oral contraceptive pills (81.0%). Knowledge of intrauterine devices was moderate (59.7%), while awareness of other methods—such as fertility awareness–based methods (calendar-based methods), sterilization, and the withdrawal method (coitus interruptus)—was limited.

3.3. Students' attitudes towards contraception

Table 2. Students' attitudes toward contraceptive methods

Characteristics		n	%
No contraceptive method is 100% effective	Strongly disagree	9	3.9
	Disagree	23	10.0
	Uncertain	59	25.5
	Agree	114	49.3
	Strongly agree	26	11.3
Using contraceptive methods is the best choice for sexually active individuals	Strongly disagree	5	2.1
	Disagree	12	5.2
	Uncertain	63	27.3
	Agree	112	48.5
	Strongly agree	39	16.9
Adolescents/young adults should learn about contraceptive methods when engaging in sexual activity	Strongly disagree	7	3.0
	Disagree	6	2.6
	Uncertain	40	17.3
	Agree	112	48.5
	Strongly agree	66	28.6
I believe condoms are the best contraceptive method for adolescents/young adults	Strongly disagree	3	1.3
	Disagree	19	8.2
	Uncertain	116	50.3
	Agree	80	34.6
	Strongly agree	13	5.6
Emergency contraception is the best option for adolescents/young adults after unprotected sexual intercourse	Strongly disagree	11	4.8
	Disagree	34	14.7
	Uncertain	122	52.8
	Agree	58	25.1
	Strongly agree	6	2.6
Frequent use of emergency contraceptive pills may affect future fertility	Strongly disagree	6	2.6
	Disagree	6	2.6
	Uncertain	55	23.8
	Agree	119	51.5
	Strongly agree	45	19.5

The students participating in the study generally showed positive attitudes toward contraception, with most agreeing that no method is completely effective (60.6%), supporting contraceptive use (65.4%), and endorsing contraceptive education (77.1%). However, uncertainty remained regarding specific methods, particularly condoms (50.3%) and emergency contraception (52.8%). A majority also believed that frequent use of emergency contraceptive pills may affect future fertility (71.0%).

3.4. Students' practice of contraception

Table 3. Students' practices regarding contraceptive methods

Characteristics		n	%
Participants had ever had sexual intercourse	Yes	27	11.7
	No	204	88.3
Participants' attitudes toward using contraceptive methods during their first sexual intercours	Yes	14	6.1
	No	217	93.9
Contraceptive methods chosen for use by participants	Condoms	17	60.7
	Oral contraceptive pills	6	21.4
	Coitus interruptus	6	21.4
	Emergency contraceptive pills	4	14.3
	Injectable contraceptives	3	10.7
	Fertility awareness–based methods	1	3.6
	Others	3	10.7
Commonly used contraceptive methods	Condoms	27	41.6
	Coitus interruptus	19	18.8
	Oral contraceptive pills	17	16.8
	Emergency contraceptive pills	16	15.8
	Injectable contraceptives	7	6.9

There were 63% of students having poor practice regarding contraceptive methods, while only 37% practice well. This indicates that the majority of students have not effectively applied their knowledge to practice, and there is a need to strengthen education and guidance on safe contraceptive practices.

3.5. Sources of information on contraception methods received by students

Table 4. Sources of contraceptive information received by students (n=231)

Characteristic		n	%
Having heard about contraceptive methods from	Newspapers/ television	150	64.9
	School	154	66.7
	Friends	109	47.2
	Family	95	41.1
	Counseling centers	62	26.8
	Internet	167	72.3
	Other	27	11.7
Desire to learn about contraceptive methods and reproductive health	Yes	171	74.0
	No	60	26.0
Content desired for further learning	Traditional contraceptive methods	32	13.9
	Modern contraceptive methods	199	86.1
Preferred information channels	Face-to-face counseling	81	35.1
	Online counseling	126	54.5
	Counseling by letter	48	20.8
	Newspapers/ television	86	37.2
	School-based programs	108	46.8
	Friends	72	31.2
	Family	68	29.4
	Other	27	11.7
Willingness to join a contraceptive counseling services and reproductive health clubs	Yes	157	68.0
	No	74	32.0

Students mainly accessed information on contraceptive methods through the Internet (72.3%) and school (66.7%). The majority (74.0%) expressed a desire to learn more about contraceptive methods and reproductive health, particularly about modern contraceptive methods (86.1%). Online counseling (54.5%) and school-based programs (46.8%) were the most preferred forms of information and counseling. In addition, 68.0% of students indicated a willingness to participate in a counseling club, reflecting a high level of interest in and demand for knowledge about contraceptive methods.

4. DISCUSSION

Among the 231 students who participated in the study, the majority were female (80.5%), most were 19 years old (96.5%), most belonged to the Kinh ethnic group (78.8%), and most were from Tra Vinh Province (73.2%). These characteristics are consistent with the actual demographic profile of nursing students at universities, where female students typically outnumber males. This context suggests that the findings reasonably reflect the reality of the target population, namely first-year students entering early adulthood, a developmental stage characterized by increasing needs for knowledge and awareness regarding reproductive health and contraceptive methods.

Chart 1 shows that 94.4% of students were aware of contraceptive methods. This finding is comparable to the report by Nguyen Thi Tan and Dam Thi Thuy (2024), in which 95.5% of medical laboratory science students were aware of at least one contraceptive method [3]. However, this proportion is slightly lower than that reported by Dinh Thi Yen et al, where 100% of first-year medical students at Hanoi Medical University, Vietnam National University were aware of at least one contraceptive method [4]. This suggests that first-year nursing students at Tra Vinh University have a good level of knowledge regarding contraceptive methods. Among students, 96.1% identified condoms as a contraceptive method, followed by oral contraceptive pills (81%) (Chart 2). These results are broadly consistent with previous report of Dinh Thi Yen et al, however, awareness of intrauterine devices (IUDs) in our study (59.7%) was higher [4].

Regarding attitudes, more than 60% of students in this study recognized that no contraceptive method is 100% effective, and over 60% believed that using contraception i s the best approach during sexual intercourse. Overall, these proportions were lower than those reported by [3] and [4]. Meanwhile, the proportion of students concerned about the side effects of oral contraceptive use (71%) was higher than that reported in the study by [3] (50.3%). These findings indicate that, in addition to the effectiveness of contraceptive methods, first-year nursing students are also concerned about their potential side effects, particularly those associated with oral contraceptive pills.

Regarding practice, 11.7% of students had ever had sexual intercourse, and only 6.1% agreed with using contraception at first sexual intercourse—much lower than in the study by Dinh Thi Yen et al [4], indicating a need to strengthen knowledge on contraceptive use. In our study, condoms were the most commonly chosen contraceptive method among students (60.7%), followed by oral contraceptive pills and coitus interruptus (21.4%). These figures were higher than those reported by [4]. Notably, only 14.3% of students selected emergency contraception, possibly due to concerns about side effects. Meanwhile, Cao Van Anh reported that 71.5% of students in their study selected emergency contraception after unprotected intercourse [5].

Among the various information sources, most students reported obtaining information from the internet (72.3%), followed by school-based education (66.7%) and mass media (64.9%). Many students (74%) expressed a desire to receive education on contraception and reproductive health, as well as to participate in reproductive health and contraception-related clubs (68%). These findings indicate a high level of interest among students in

contraception and reproductive health. Therefore, strengthening sexuality education in schools and making more effective use of Internet-based platforms may represent a reasonable strategy for improving students' awareness and knowledge in this area as suggested by Nguyen Phuc Hong Ngoc et al, [6].

5. CONCLUSION

First-year nursing students at Tra Vinh University demonstrated good knowledge and attitudes toward contraceptive methods; however, their practical application remains suboptimal. Most students were aware of contraceptive methods, and condoms were the most commonly preferred option. However, the majority of students did not favor using contraception during their first sexual intercourse. It is therefore necessary to integrate sexuality education and reproductive health education into the curriculum, and to establish student clubs focusing on this topic for students, particularly in medicine and pharmacy-related disciplines.

REFERENCES

[1] Vietnam's Ministry of Health. Decision No. 3781/QĐ-BYT, dated August 28, 2020. On the Promulgation of the "National Action Plan on Adolescent and Youth Reproductive and Sexual Health Care for the Period 2020–2025". Hanoi. 2020.

[2] Nguyen Minh Khang, Tao Gia Phu, Vo Khanh Phuong, Nguyen Van Trung. Premarital sexual intercourse and associated factors. Tra Vinh University Journal of Science, 2023, 13 (Special issue 2023):70-77 .

[3] Nguyen Thi Tan, Dam Thi Thuy. Knowledge and attitude about contraceptive measures of students testing course 13 of Hai Duong Medical Technical University. 2024, 539(6):212-126.

[4] Dinh Thi Yen, Bui Thuy Minh, Nguyen Thi Thuy, Nguyen Thi Nguyet. Knowledge, attitudes and behaviors towards contraceptive measures of first-year medical students of University of Medicine and Pharmacy - VNU-Hanoi in 2024. Vietnam Journal of Community Medicine. 2025, 66(Special Issue 17):289-294

[5] Cao Van Anh. Knowledge about contraceptivemethods of first-year nursing students at Nam Dinh University of nursing. Vietnam medical journal. 2024, 539(3):85-88.

[6] Nguyen Phuc Hong Ngoc, Nguyen Quoc Tuan, Ba Tho Ngoc Chuyen, Le Dai Khanh Duy, Nguyen Thi Cam Tien, Nguyen Thuy Duong. Knowledge of contraception and safe sex among students at Cantho University of Medicine and Pharmacy, Viet Nam. 2023, 9(5):49-56.