

# Nursing Faculties' Attitudes and Perceptions on Integrating Medical Cannabis Content into Undergraduate Nursing Curricula: A Qualitative Study\*

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## Abstract

**Purpose:** To explore attitudes and perceptions of an integration of the medical cannabis content into undergraduate nursing curricula from the perspectives of nursing faculties within a context of Thailand.

**Design:** A qualitative descriptive study.

**Methods:** Purposive sampling technique was used to recruit 15 participants working in a nursing faculty in Southern Thailand. The data was collected between February 2020 and August 2020 through individual in-depth interviews using a semi-structured interview guide. All interviews were tape recorded and transcribed verbatim for each participant. All participants identifiers were removed from the data. Data were analyzed using content analysis to determine key results from the transcription of the recorded interviews.

**Main findings:** The achievement of data saturation was achieved after interviewing 15 participants (14 female, 1 male). The ages ranged from 29 to 56 years with an average of 39.6 years. All participants reported lack of participation in education on medical cannabis as well as the preparation of nursing students in caring for patients using medical cannabis. Two main themes emerged from content analysis: professional ambivalence and conditional recommendations for integration. The theme professional ambivalence was divided into two sub-themes: perceived benefits and risks of medical cannabis and acknowledging the need for integration. The theme conditional recommendations for integration consisted of two sub-themes, including call to action for the proper integration and key elements of a successful integration.

**Conclusion and recommendations:** The nursing faculties held favorable views of integrating medical cannabis content into the nursing curricula regardless of their divergent attitudes, perceptions, and concerns toward medical cannabis. They perceived a dual role. first, educating students on the principles of safe, quality care for medical cannabis patients, and second, supervising them to develop clinical competency with this patient population. The comprehensive education and training of medical cannabis is therefore required to strengthen the nursing faculties' competency to ensure their readiness in preparing nursing students and for patients that use medical cannabis.

**Keywords:** attitudes, medical cannabis content, perceptions, undergraduate nursing curricula

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# เจตคติและการรับรู้ของอาจารย์พยาบาลต่อการบูรณาการเนื้อหาเกี่ยวกับกัญชาทางการแพทย์ในหลักสูตรปริญญาตรีทางการพยาบาล: การวิจัยเชิงคุณภาพ\*

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## บทคัดย่อ

**วัตถุประสงค์:** เพื่อศึกษาเจตคติและการรับรู้ต่อการนำเนื้อหาเกี่ยวกับกัญชาทางการแพทย์มาบูรณาการในหลักสูตรปริญญาตรีทางการพยาบาลจากมุมมองของอาจารย์พยาบาลในบริบทของประเทศไทย

**รูปแบบการวิจัย:** การวิจัยเชิงคุณภาพแบบบรรยาย

**วิธีดำเนินการวิจัย:** กลุ่มตัวอย่างเป็นอาจารย์พยาบาลที่ปฏิบัติงาน ณ มหาวิทยาลัยแห่งหนึ่งในภาคใต้ จำนวน 15 คน ใช้วิธีการเลือกกลุ่มตัวอย่างแบบเจาะจง เก็บรวบรวมข้อมูลระหว่างเดือนกุมภาพันธ์ถึงเดือนสิงหาคม พ.ศ. 2563 โดยการสัมภาษณ์แบบเจาะลึกรายบุคคล ด้วยวิธีสัมภาษณ์แบบกึ่งโครงสร้าง ทำการบันทึกเสียงการสัมภาษณ์ทั้งหมดร่วมกับการถอดเสียงแบบคำต่อคำของผู้ให้สัมภาษณ์รายบุคคล ข้อมูลทั้งหมดที่นำไปสู่การบ่งชี้ตัวบุคคลของผู้ร่วมวิจัยได้ถูกลบออกจากข้อมูล วิเคราะห์ข้อมูลโดยใช้การวิเคราะห์เนื้อหาเพื่อค้นหาข้อสรุปสำคัญที่ได้จากการถอดเสียงบันทึกการสัมภาษณ์

**ผลการวิจัย:** ความอึดตัวของข้อมูลเกิดขึ้นจากผู้ให้ข้อมูล 15 ราย (เพศหญิง 14 ราย เพศชาย 1 ราย) มีอายุระหว่าง 29-56 ปี อายุเฉลี่ย 39.6 ปี ผู้ให้ข้อมูลทุกรายไม่เคยได้รับความรู้เกี่ยวกับกัญชาทางการแพทย์รวมถึงการเตรียมนักศึกษาพยาบาลในการดูแลผู้ป่วยที่ใช้กัญชาทางการแพทย์ ผลการวิเคราะห์เนื้อหาวิจัยสรุปได้เป็น 2 หมวดหมู่หลัก ได้แก่ ‘ความรู้สึกสองฝักสองฝ่ายในฐานะวิชาชีพ’ และ ‘คำแนะนำในการบูรณาการอย่างมีเงื่อนไข’ หมวดหมู่ ‘ความรู้สึกสองฝักสองฝ่ายในฐานะวิชาชีพ’ ประกอบด้วย 2 หมวดหมู่ย่อย ได้แก่ ‘การรับรู้ประโยชน์และโทษของกัญชาทางการแพทย์’ และ ‘เห็นถึงประโยชน์และคุณค่าในการนำมาบูรณาการ’ สำหรับหมวดหมู่ ‘ข้อเสนอแนะและเงื่อนไขสำคัญในการบูรณาการ’ ประกอบด้วย 2 หมวดหมู่ย่อย ได้แก่ ‘การดำเนินการเพื่อการบูรณาการอย่างเหมาะสม’ และ ‘กุญแจสำคัญสู่ความสำเร็จในการบูรณาการ’

**สรุปและข้อเสนอแนะ:** อาจารย์พยาบาลเห็นถึงความจำเป็นในการนำเนื้อหาเกี่ยวกับกัญชาทางการแพทย์มาบูรณาการในหลักสูตรปริญญาตรีทางการพยาบาลโดยไม่คำนึงถึงเจตคติ การรับรู้ มุมมองสองฝักสองฝ่าย และความห่วงกังวลต่อการใช้ทางการแพทย์ อาจารย์พยาบาลรับรู้ถึงการมีบทบาทคู่ขนานในการให้ความรู้แก่นักศึกษาในการดูแลผู้ป่วยที่ใช้กัญชาเพื่อการแพทย์อย่างมีคุณภาพปลอดภัย ควบคู่ไปกับการพัฒนาสมรรถนะทางคลินิกของตนเองในการดูแลผู้ป่วยกลุ่มนี้ อาจารย์พยาบาลจึงมีความต้องการที่จะได้รับการศึกษาฝึกอบรมเกี่ยวกับกัญชาทางการแพทย์อย่างลึกซึ้งครอบคลุมเพื่อเสริมสร้างสมรรถนะ มีความมั่นใจในความพร้อมที่จะเตรียมนักศึกษาพยาบาลและในการดูแลผู้ป่วยที่ใช้กัญชาทางการแพทย์ต่อไป

**คำสำคัญ:** เจตคติ เนื้อหาเกี่ยวกับกัญชาทางการแพทย์ การรับรู้ หลักสูตรปริญญาตรีทางการพยาบาล

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## Background and Significance

Thailand was acknowledged as the first South-East Asian country to legalize cannabis for medical use and research purposes allowing its possession and use in limited quantities. Like other nations, the legal and societal status of cannabis in Thailand seemed to rely on national law. The status of “ganja” or “kancha,” a Thai name of cannabis, has long been identified as an illegal substance by the Narcotics Act. B.E. 2522 (A.D. 1979).<sup>1</sup>

Recently, the Narcotics Act B.E. 2562 (A.D. 2019) decriminalized the cultivation and possession of cannabis among eligible patients with prescriptions, licensed and certified medical professionals, health-related government agencies, state-registered agricultural community programs, and certified international logistics and transportation operators.<sup>1</sup> Since then, medical cannabis has increasingly gained interest and popularity, with an emerging large number of patient users.

There is still a paucity of moderate to high-level evidence to support the therapeutic efficacy of cannabis and to adequately characterize its associated risks. The modest effects of cannabinoids are evidenced for chemotherapy-induced nausea and vomiting, chronic pain, and spasticity in adults with multiple sclerosis (MS). While there is inadequate evidence to support or against the effects of cannabinoids for all other conditions.<sup>2</sup>

Previous descriptive and retrospective studies were conducted in Thailand to determine the quality of life of patients after receiving cannabis extract with a significant improvement in quality of life.<sup>3</sup> Currently, the most common form of medical cannabis use in Thailand was oil extract sublingual; and the most common initial reason for usage was pain control.<sup>4</sup>

To our knowledge, there is no published guideline for the nursing care of patients using medical cannabis in Thailand with limited guidelines across the globe at the time of the study. Due to a lack of established policies, an undefined scope of practice, and insufficient training, nurses caring for medical cannabis patients are often placed in professionally conflicts and ethically questionable situations. This issue is further complicated by the wide range of opinions held by fellow nurses and other stakeholders.

Along with this, legalization of cannabis for medicinal purposes remains a controversial, conflictual, and debatable issue.<sup>5</sup> Although cannabis has been used as traditional medicine in Thailand for centuries, it prominently remains unacceptable, criminalized; and its use is viewed as a stigma in the Thai context.<sup>1,5</sup> This leads to a myriad of problems in the use of medical cannabis affecting patients who use cannabis for medicinal purposes as well as raising evolving societal and ethical issues including nursing practice and education.

Regardless medical cannabis has not been integrated into the undergraduate nursing curricula, nurses play an important role in the care of clients who use or are considering using cannabis for a medical purpose. A previous national survey of U.S. medical school curriculum deans, residents, and fellows to examine the level of medical educational training to prepare students and physicians to prescribe medical cannabis revealed a lack of preparation.<sup>6</sup> In the same study, most deans agreed to include medical cannabis content in undergraduate medical curricula.<sup>6</sup> Negative attitudes towards medical cannabis among Thai registered nurses were also reported in a previous study in Thailand.<sup>7</sup>

Given these multifaceted challenges, understanding the underlying factors that shape nurses' responses is crucial. It is well-established that an individual's attitude their overall appraisal of a situation and perception the process of interpreting information profoundly influence their openness to new information and subsequent behaviors.<sup>8-9</sup> Individuals with positive attitudes and perceptions are more likely to demonstrate interest, engagement, and trust, whereas those with negative perceptions may exhibit resistance.

For this reason, nursing faculties' attitudes and perceptions will affect the integration of medical cannabis content into undergraduate nursing curricula. However, how these principles apply to Thai nursing

faculties' views on medical cannabis, especially in a context of integrating into nursing curricula remains poorly understood. Understanding their attitudes and perceptions toward this issue is therefore necessary to view their intended behaviors as well as provide room for improvement in preparing nursing students in caring patients using medical cannabis. This study, therefore, aims to address this knowledge gap.

### **Objective**

This qualitative study aimed to explore attitudes and perceptions of an integration of the medical cannabis content into undergraduate nursing curricula from the perspectives of nursing faculties within a context of Thailand.

### **Methodology**

#### **Design**

Qualitative descriptive design utilizing in-depth interviews is particularly relevant where information is required directly from those experiencing the phenomenon under investigation and where evidence and resources are limited.<sup>10-11</sup> A descriptive qualitative study design is suitable to capture the rich descriptions of nursing faculties' attitudes and perceptions towards integration of medical cannabis content into the bachelor of nursing science program in Thailand.

### Study participants

The study was carried out between February 2020 and August 2020 in a nursing institution in Southern Thailand. A purposive sampling was conducted to recruit nursing faculties from every department who had a minimum of two years of teaching experience and who were interested and willing to participate and share their unique views. Potential participants were identified through the professional and personal networks of the researchers, followed by a phone call to each participant to make an appointment for interview based on their availability. Additional participants were recruited through snowball techniques. The number of participants in this study was determined using data saturation. Data saturation was determined when no new information, codes, patterns, or themes emerge from the interviews.<sup>12</sup> Data saturation helps ensuring that a representative range of perspectives was captured by the researcher.<sup>13</sup>

### Data collection

After receiving the ethical clearance, the researchers sent a recruitment email explaining the study and the participant information sheet to the faculty participants. A semi-structured face-to-face interview using open-ended questions was conducted by the third author of this study (K.M.) who has completed a doctoral dissertation using ethn nursing research methodology and has conferred

a doctorate degree. The first (S.K.) and second (D.S.) authors of this study were responsible for making tape recordings, taking interview notes, and verbatim interview transcription.

Each interview started with general questions regarding personal data and medical cannabis background using a self-report questionnaire. To ensure consistency between interviews, the researchers developed an interview guide containing a list of topics and set of predetermined questions that should be included in the interview. The appropriateness and comprehensiveness of the interview guide was assessed by three experts. The final draft of the interview guide was then developed based on the feedback and suggestion provided by the experts. Extra questions were also flexibly added and modified during the interview to probe and explore more about specific issues to collect the data necessary to answer the research question.

The main questions in the interview guide included: (1) first impression with medical cannabis; (2) clinical experience with medical cannabis; (3) impacts of medical cannabis on nursing education; (4) the current state of nursing education on medical cannabis; (5) involvement of nursing faculties on medical cannabis; (6) education and training provided for student nurses regarding nursing care for student nurses regarding nursing care for patients using medical cannabis; (7) integration of medical

cannabis content into nursing curricula; (8) readiness to teach or counsel their students as well as patients about medical cannabis; and (9) effective strategy(s) or educational method(s) to integrate medical cannabis content into undergraduate nursing curricula. The participants were also asked to provide additional information to clarify, elaborate, illustrate, or explain their previous answers and responses given to an interview question.

Data saturation was achieved through interviews with 15 faculty participants as no new data emerged. The interviews were in Thai and the verbatim quotations were translated into English by the third author of this study (K.M.) and proofread by a native speaker of English who stay in Thailand for a period longer than 30 years. Each interview lasted 30 to 45 minutes. The interviews took place in private room at the university.

### **Data analysis**

Qualitative content analysis was employed to systematically determine key results.<sup>14-15</sup> The first step towards conducting the content analysis was a verbatim transcription of an audio tape of the interview data by the first (S.K.) and second authors (D.S.) of this study. Next, the verbatim transcribed interview texts were read and re-read by the third author of this study (K.M.). A list of meaningful, recurrent ideas and key issues in data was made to get a sense of the whole and to gain a general

understanding of the raw data. Then, the text was divided into meaning units. Data reduction was then conducted to reduce the amount of raw data while still retaining the core meaning of the text. After that, the condensed meaning units were labeled by formulating codes. The codes that were related to each other or similar data were grouped into categories by the second (D.S.) and the third authors of this study (K.M.). After all, themes or patterns of meaning were developed by identifying relationships between categories to reconstruct meaningful data.<sup>17-18</sup>

### **Trustworthiness of the study**

Trustworthiness was established following Lincoln and Guba's criteria: credibility, dependability, confirmability, and transferability.<sup>19</sup>

Credibility in this study was established using member checking to confirm the truth of the research findings drawn from the original data and views of the participants. The researchers sent the research findings to the participants and asked them to validate the accuracy of the data, including the transcripts of dialogues, and to confirm the correctness of key results interpretation.<sup>20</sup>

Transferability of this study was attained by providing sufficient information about the findings from the participants' perspectives for the readers to evaluate the relevance of findings to other contexts.<sup>21-22</sup>

Descriptions of research design, including

the study's purpose, methods, data collection procedures, and transparent approaches to data analysis were fully and clearly detailed and well-documented to attain dependability of the study.

The researchers critically reflect their own biases, preferences, preconceptions, and values that may affect the research process and findings to establish dependability.<sup>23-24</sup> The reflexivity was continually conducted by keeping a journal or reflexive notes during data collection and throughout the study in collaboration with the entire research team.

### **Ethical considerations**

This study was approved by the Faculty of Nursing, A University, institutional review board (IRB 2020-NL002). Consent was given freely and voluntarily by the participants after being adequately informed of a full, detailed explanation of the study and data collection process. Sufficient time was given for individual participants to ask questions and address any concerns.

Potential for coercion or undue influence was of the utmost concern since this study recruited and interviewed of participants in the context of pre-existing peer and ongoing collegial relationships in the same organization. Here, the participants were firstly approached by the outsider researcher (S.K.) to mitigate the potential for the participants to feel pressured to participate. The potential participants were informed that all insider researchers did not

know the participants' refusal to participate in the study. Self-disclosure and confidentiality were rigorously used and maintained during the study.

Data collection process was conducted based on the original protocol approved by the institutional review board. The anonymity and confidentiality of the participants were preserved by not disclosing their names and identities in the data collection, data transcription, analysis, and dissemination of the findings. Data were kept in encrypted devices and password protected.

### **Findings**

#### **Background of the study participants**

The study participants included 15 nursing faculties. The ages of participants ranged from 29 to 56 years with an average of 39.6 years. The vast majority had doctoral degrees in nursing (60%). The average length of their academic experience was 9 years. As shown in Table 1, the participants worked in a variety of disciplines or in different settings. All participants had not been approached to discuss medical cannabis with their students and patients. Every participant had no experience in attending medical cannabis training or in giving advice or information regarding medical cannabis to clients and students. The participants never allocated or attended a seminar in the school of nursing. The medical cannabis content had not been documented

the current nursing curricula and no revising plan for integrating medical cannabis into undergraduate nursing curriculum. There was no existing school of nursing policy regarding medical cannabis care.

There is no project and training plan with respect to medical cannabis to increase medical cannabis competency of nurse faculties. Table 1 displays background information about each participant.

**Table 1:** Background information about each participant

Participant	Age	Sex	Degree	Experience (Year)	Department	Education/training
1	56	Female	Doctoral	27	Midwifery <sup>a</sup>	No
2	29	Female	Master	2	Administration <sup>b</sup>	No
3	47	Female	Doctoral	2	Community <sup>c</sup>	No
4	42	Female	Doctoral	13	Community <sup>c</sup>	No
5	56	Female	Doctoral	30	Administration <sup>a</sup>	No
6	38	Female	Doctoral	9	Midwifery <sup>b</sup>	No
7	31	Female	Master	3	Psychiatric <sup>d</sup>	No
8	30	Female	Master	3	Pediatric <sup>e</sup>	No
9	46	Female	Doctoral	13	Surgery <sup>f</sup>	No
10	36	Female	Master	3	Psychiatric <sup>d</sup>	No
11	44	Female	Doctoral	12	Medicine <sup>g</sup>	No
12	30	Female	Master	5	Pediatric <sup>e</sup>	No
13	35	Female	Doctoral	9	Medicine <sup>g</sup>	No
14	30	Female	Master	3	Surgery <sup>f</sup>	No
15	44	Male	Doctoral	3	Psychiatric <sup>d</sup>	No

<sup>a</sup> Nursing Administration, <sup>b</sup> Maternal Newborn Nursing and Midwifery, <sup>c</sup> Community Health Nursing, <sup>d</sup> Psychiatric and Mental Health Nursing, <sup>e</sup> Pediatric Nursing, <sup>f</sup> Adult and Gerontological Nursing in Surgery, <sup>g</sup> Adult and Gerontological Nursing in Medicine

**Attitudes and perceptions on the integrating of medical cannabis content**

Two major themes related to nurse faculties’ attitudes and perceptions toward medical cannabis education integration into undergraduate nursing curricula emerged from the content analysis of the interviews: ‘professional ambivalence’ and ‘conditional recommendations for integration.’

**Theme 1: Professional ambivalence**

This theme generated from analysis of the content given by the participants which revealed their controversial viewpoints on medical cannabis as well as perceived importance of integrating medical cannabis content into undergraduate nursing curricula. This theme is divided into two sub-themes: ‘perceived benefits and risks of medical cannabis’ and ‘acknowledging the need for integration.’

### Sub-theme 1: Perceived benefits and risks of medical cannabis

The participants dualistically perceived and disclosed contrasting narratives of medical cannabis use. Most participants perceived both therapeutic and undesired harmful effects of using cannabis as medicine. Most participants identified specific health benefit of cannabis for terminally ill or dying patients to avoid developing addiction and prevent nervous system damage. Almost all participants acknowledged benefit of cannabis in making patients feel relax, happy, and improve quality of life among dying patients. Most participants agreed on the use of cannabis to alleviate the suffering of dying patients, especially those with end-stage cancer. Some participants perceived benefit of cannabis in relieving pain and suffering for advanced cancer patients. They viewed medical cannabis as alternative for advanced cancer patients.

Every participant expressed their concerns about health risks associated with medical cannabis use. According to their perceptions, use of cannabis either for therapeutic or recreational purpose will lead to experience its harmful effects such as cognitive impairment, psychotic disorder or psychosis, and cannabis use disorder. Here, some participants viewed possible therapeutic benefits of cannabis did not outweigh its harmful effects. Most participants excessively worried about getting serious adverse

health effects associated with cannabis use.

*“Several types of narcotics have been used for medical purposes including cannabis. It might be good and give therapeutic benefits for patients. Both narcotics as well as medicine have double sides both advantages and disadvantages. While the good side of cannabis helps to relieve symptoms and increase quality of life, another side certainly damaged the nervous system” (Participant 11)*

*“Since its an illegal drug, it is a double side of the same coin that has both advantages and disadvantages. If we can use the benefit of cannabis, it provides happiness to patients. However, suffering is also developed from addiction. In my view, cannabis is of benefit and important to relieve pain and suffering for advanced cancer patients. For me, a dying patient is walking to the end of the journey, so whatever medicine can enhance peaceful death is always good. In contrast, for patients in other conditions who live for so long, it will lead to drug addiction.” (Participant 10)*

*“Many patients, in particular cancer patients, use cannabis because they have no choice and this is the last choice for patients. When a doctor said there is no further treatment or nothing to treat so they find any alternative that they perceive might help them getting better. Sometimes, they saw other patients get distress from side effects of traditional treatments or getting worse after treatment. For this*

*reason, they try to find any alternatives to help relieve distress symptoms and to survive. Most of all they trust and believe in the benefit of cannabis.” (Participant 9)*

*“For patients who decided to use cannabis, they might see the potential to get more benefit than harm, such as relief of pain rather than addiction. Even though they will experience cannabis addiction it will make them happy at the end of their life. They might hear the therapeutic efficacy of cannabis from the news so they decide to use it. Patients might feel that there is nothing to lose. They might use every treatment or painkiller without getting relief. The patients might want only relief of their symptoms without thought of other consequences. They just need something to rely on.” (Participant 8)*

Some participants viewed patients who use cannabis for therapeutic purposes as a recreational drug use. They believed that medical cannabis use will lead to misuse. The participants also expressed their difficulty in differentiating medical and recreational cannabis users. They shared the reasons underpinning their thoughts because of the illegal status of cannabis in Thai society for a long time. Cannabis was viewed as an illicit substance abuse and addiction and has less possibility of using for therapeutic purpose. Consequently, they elicited stereotype of a group of medical cannabis users.

*“Some people are still against medical cannabis because cannabis has long been categorized under*

*illegal drug and we believe that cannabis users are more likely to become addicted to cannabis. The image of cannabis is embedded as illegal drug. When we grow up, we all perceived the stigma that cannabis is addiction. Changing cannabis to be used as medicine including the term “Free” raises concern and worry about leading patients astray or recreational use and getting high.” (Participant 3)*

*“Like other people around me, they view cannabis as drug addiction. Currently, most people who use cannabis do so for recreational purpose. I still remember picture of junkie teenagers in the village with hallucination. However, patients who are registered to use as medicine might be real or they really wanted to use it to relieve their pain and not for addiction. But I still greatly worry about bringing a narcotic like cannabis to use as medicine. Since narcotic is narcotic, nobody knows how and how much to use to be safe and not become addicted.” (Participant 11)*

*“We cannot get rid of the thoughts that cannabis is an illicit and addictive substance. We see only the harmful effects of cannabis. How to handle a life-threatening overdose? Cannabis is not a medicine. It induced psychosis like delusion or hallucination and other adverse health problems. Cannabis consumption by teenagers is especially worrisome. Many teenagers will experiment cannabis and use for recreational purpose. Our nursing students are teenagers as well.” (Participant 15)*

### **Sub-theme 2: Acknowledging the need for integration**

Some participants viewed integration of medical cannabis content into undergraduate nursing curricula as necessity. They perceived significance of medical cannabis education related to its legalization with a top government priority and an increasing number of patients using cannabis for medicine as well as the existence of its used in Thai hospital patients. Integration of medical cannabis content was also viewed as the nursing faculty responsibility in equipping nurses of tomorrow about medical cannabis use today. Integrating medical cannabis content into undergraduate nursing curricula was perceived as significance with the aim of preparing their nursing students to appropriately approach with this group of patients.

*“National legalization of medical cannabis provides new alternative treatment for patients. Meanwhile nurses possess little knowledge about cannabis therapeutics. Most nurses are not taught or trained about medical cannabis in most nursing schools. However, it is a nurse’s role to give information to patient who use cannabis. Nurses must be aware that they must get adequate knowledge regarding medical cannabis. There is a need for nurses to be knowledgeable about medical cannabis concerning indications, side effects, including the relevant law of what patients can*

*and cannot legally do around the use of medical cannabis.” (Participant 4)*

*“Legalization of medical cannabis acts as an external force for the school of nursing to concern about this. A lot of patients under the care of nurses are using or intend to use medical cannabis. It is a compulsory for the nursing school and nursing faculties to take this into consideration. Whether we agree with this or not, we must educate our students to provide the best care for medical cannabis patients.” (Participant 7)*

*“From now on nursing faculties cannot avoid getting involved with patients who use cannabis. Here, there is a need for both nursing students and faculties to be knowledgeable about medical cannabis. We must do a nurse’s role for consultation when patients seek information as well as to supervise students. Integrating medical cannabis into our teaching and learning also reflects whether we are truly open-minded to medical cannabis.” (Participant 14)*

### **Theme 2: Conditional recommendations for integration**

This theme generated from analysis of the content provided by the participants which revealed recommendations and some conditions required prior to integrate medical cannabis content into undergraduate nursing curricula. This theme consists of two sub-themes, including ‘call to action for the proper integration’ and ‘key elements of a successful integration.’

### **Sub-theme 1: Call to action for the proper integration**

Most participants expressed some degree of ambivalence or uncertainty about the integration of medical cannabis content into the undergraduate nursing curricula. They perceived that while cannabis is legally used for medical purpose, it should be standardized used with patients as other medications in hospital. They suggested that, medical cannabis should be incorporated into Thailand National List of Essential Medicines (NLEM) with the formulations of pharmaceutical grade medical cannabis. They suggested that administration of medical cannabis for patients in hospital required medical doctor's order as other medications. Some participants showed their reluctance to involve in medical cannabis care and administration since medical doctors are not prescribing medical cannabis as well as not include the medical cannabis that the patient has been taking into medication reconciliation.

*"I would not hesitate to integrate medical cannabis into the relevant topics or courses if it is incorporated into the National List of Essential Drugs or unless it should be prescribed by medical doctors. While medical cannabis has been legal in Thailand, most nurses and medical doctors do not know about this. Most of all, use of cannabis for therapeutic purposes does not pass Food and Drug Administration approval process as other medicines. Who is*

*responsible for patient safety? For this reason, it is not the right time in integrating medical cannabis education for our students."* (Participant 12)

### **Sub-theme 2: Key elements of a successful integration**

Most of the participants suggested strategies and critical success factor for integrating medical cannabis content into undergraduate nursing curricula. Some participants viewed their negative attitudes towards cannabis as influencing the way they approach or respond to medical cannabis situations. They suggested helping nurse faculties to develop positive attitudes on medical cannabis to achieve successful integration of its content. Most of the participants viewed the institutional and national professional nursing association policies as a vital strategic plan to attain their competency and successful integrated medical cannabis education for nursing students. Several participants suggested gradually integrating medical cannabis education into relevant topics and in clinical placement practices. They described a long history of cannabis use for recreational purposes in Thailand as a major reason for supporting an unhurried medical cannabis education assimilation into nursing education. The famous Thai proverb, 'don't break the handle of a knife with your knee' (who remove stones, bruise their fingers' in English), was mentioned by some participants to infer their narratives.

*“If nurse faculties view medical cannabis as an illegal drug that patients will use for smoking a joint, they will generate biases in medical cannabis use. Consequently, they will gear students with negative attitudes concerning the harm of medical cannabis or forbidden medication and against to use or even not talking about medical cannabis.” (Participant 5)*

*“Certainty, everybody still views cannabis as an illegal drug. Here, training to adjust faculties’ attitude to cannabis from narcotic to one of the medicines that certainly have side effect should be conducted. There is a need to train nursing faculties how to approach patients. If faculties do not believe the therapeutic effect of cannabis and step back when approaching its users, it is impossible to teach students to accept and understand.” (Participant 6)*

*“My negative attitudes toward cannabis shaped my pessimistic view of medical cannabis. I will talk to my students about the disadvantages of medical cannabis. Use of cannabis, both for recreational and medical purposes, will be harmful to personal health in particular, increased incidence of psychosis and addiction. To achieve successful integration of medical cannabis content, I must remove the negative attitudes toward cannabis on my mind” (Participant 15)*

*“In order to make faculties competent and interested in medical cannabis, it’s required to have the policy launched by the nursing institution or from the top of the institution. There is a need to*

*declare the required tasks for every nursing faculty to attain. In combination with this, the nursing council must launch the scope of nursing practice act regarding administration of medical cannabis.” (Participant 7)*

*“In order to establish faculties’ competency regarding medical cannabis, the proactive policy or strategy activated by school of nursing is required. Medical cannabis should be included in nursing curricula like smoking cessation by adding medical cannabis into the TQF (Thailand Qualifications Framework). Medical cannabis preparedness for faculties is firstly required prior to teaching students. Allocation of an online course that is easily accessible and available for all faculties is more effective than conference, seminar, or training since we are all busy with clinical practice.” (Participant 4)*

*“There is a need to integrate medical cannabis in the current teaching and learning such as pain management or diseases that are relevant to medical cannabis as well as add into the nursing curriculum. Cannabis is still stigmatized in Thailand. Many nurses and healthcare professionals oppose legalizing medical cannabis. So, launching a full medical cannabis study will be rejected by our nurse faculties. There is still a long way to go.” (Participant 6)*

*“Nursing care of medical cannabis patients is necessity for future nurses. However, we should not Hak-Dam-Pra-Duay-Khao (break the handle*

*of a knife with your knee) otherwise we will get rejected from nurse faculties. Because, you know, cannabis is still stigmatized in Thailand. Allocating medical cannabis education to relevant topics such as pain is recommended.” (Participant 13)*

*“We have to integrate medical cannabis into teaching and learning both theory and practice. Integration into drug administration sessions and caring for patients receiving medical cannabis in clinical practice should be considered.” (Participant 2)*

## Discussion

The perceptions of the nursing faculties in this study on their responsibility and obligation in the integration of medical cannabis into nursing curricula to educate their students to provide best care for medical cannabis patients reflect the combination of their bedside nurse and nursing faculty roles. Like the global nursing faculty, Thai nursing faculty transitions from nursing practice with a clinical experience in a specialty area to a teaching role with academic expertise.<sup>1,24</sup> Nurse faculties supervise nursing students in clinical settings along with providing direct and indirect patient care roles. For this reason, integration of medical cannabis into nursing education was favorably viewed as significance for nursing faculties regardless of their attitudes as well as limited education and training.

In line with previous studies, the dualistic

attitudes and perceptions toward medical cannabis and integration of its content into nursing education existed among Thai nurse faculties. There are several possible explanations for this finding. Thailand has cultural attitudes and a long tradition of recreational cannabis use. Before the Narcotics Act of B.E. 2562 (A.D. 2019), cannabis has long been categorized as an illegal substance with socially viewed as unacceptable.<sup>2,25</sup> Although Thais tend to develop more positive feelings for familiarity, the recent change of cannabis culture into medical cannabis could not prompt attitude change.<sup>3,26-27</sup>

The nursing faculties' suggestion to call to action for the proper integration of medical cannabis content also reflects the influence and significance of the adherence to codes of practice to patients or clients Article 10: “a practitioner of the nursing and/or midwifery profession shall not prescribe or encourage the use of any unrecognized secret medical formula or unidentified medical equipment” as proposed by Thailand Nursing and Midwifery Council.<sup>28</sup> Here, the nursing code of ethics provides a basis for the participants to view their involvement and uphold professional standards in the medical cannabis content integration.

In line with previous studies carried out by other health professionals, normative attitudes, social norms, prejudice, and biases against cannabis were the driving force behind their negative attitudes

and perceptions.<sup>7,29-31</sup> In agreement with a recent qualitative review, cannabis stigmas still exist in Thai society. Like previous studies<sup>7,32</sup>, health care professional created myths and misconceptions against medical cannabis and decreased professional engagement related to its care.

It seems possible that the negative attitude of the nursing faculties towards medical cannabis are due to inadequate medical cannabis knowledge and training. Information improves people's knowledge to understand a particular situation contributing to a change in their attitudes and perceptions. Accurate and adequate knowledge or evidence-based information of medical cannabis formed appropriate attitudes and perceptions of medical cannabis in an individual.<sup>30-32</sup> Inadequate medical cannabis knowledge as expressed by all participants influenced the development of negative attitudes and perceptions of medical cannabis. It is notable that the divergent attitudes and perceptions of medical cannabis might not affect its integration into Thai nursing education. Compassionate care value embedded in nursing profession assists the nurse faculties to keep abreast of compassion while encountering a certain situation with negative attitudes.<sup>29,32-34</sup> As with other nurse faculties across the globe, Thai faculties have an ethical responsibility to equip future nurses to provide effective and safe care in the administration of medical cannabis for clients who use or are considering using

cannabis for medical purposes. Increasing Thai patients' interest in the use of cannabis for medicinal purposes also works as a positive external force for Thai nurse faculties to view the necessity of medical cannabis education.<sup>31</sup>

The participants' attitudes might affect their perception of medical cannabis content integration into undergraduate nursing curricula. Attitudes and perceptions toward a topic or situation predict an individual's intention to engage in or perform behaviors.<sup>29,31-33</sup> Individual brings the attitude to interpret a situation or stimuli to produce a meaningful experience and the perceptions reflect a person's own attitude.<sup>30</sup> In the case of medical cannabis, professional values have a significant influence on their intention to engage in or perform behaviors.<sup>34-35</sup> For nurses, professional performance is fundamentally underpinned by a code of ethics and core values instilled through professional socialization.<sup>36</sup> Therefore, within the unique Thai context, the interplay of the national nursing education system and professional culture critically shapes how nurse faculties perceive their roles and form their intentions regarding medical cannabis.

### Conclusion and Recommendations

The faculties' intention in teaching and learning related to medical cannabis is shaped by attitudes and perceptions towards medical cannabis. The existing

conflicting attitudes and perceptions towards medical cannabis including the perceived poor control in cannabis utilization with the perceived lack of competency and confidence might impact their intention to perform the behavior related to medical cannabis education. Giving priority to adjusting faculties' attitudes and perceptions of medical cannabis can serve as a proxy for the successful integration of this issue into the nursing curriculum. Aesthetic and compassionate care are essential for nurses to allocate high-quality care for medical cannabis users under the controversial picture of medical cannabis in the context of Thailand. Future studies should be conducted to determine the contextual-based framework or model and action plan for integrating medical cannabis content into pre-licensure nursing programs. The implementation of competencies-based education on medical cannabis should be allocated for the nursing faculties to have the appropriate knowledge and attitudes to educate their students.

### Limitation

The study findings constructed from the perspectives of nursing faculty participants in a specific institutional context. The fittingness between contexts should be considered and determined prior to apply the study findings to other contexts.

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