BARRIERS AND FACILITATING FACTORS TO PASS NATIONAL LICENSE EXAMINATIONS: SUGGESTIONS FROM INTERNATIONAL MEDICAL GRADUATES

CHANANYA HOKIERTI

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Thesis
entitled

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.....

Miss Chananya Hokierti
Candidate

.....

Asst. Prof. Kasana Raksamani,
M.D., M.H.P.E.
(Health Professions Education)
Major advisor

.....

Asst. Prof. Tripop Lertbunnaphong,
M.D., Dip. Thai Board of Obstetrics and Gynaecology
Co-advisor

.....

Assoc. Prof. Varaporn Akkarapatumwong,
Ph.D. (Science)
Acting Dean
Faculty of Graduate Studies
Mahidol University

.....

Assoc.Prof. Cherdsak Iramaneerat,
M.D., M.H.P.E., Ph.D.
(Educational Psychology)
Dip. Thai Board of Surgery,
Dip. Thai Board of Colon and Rectal Surgery
Program Director
Master of Science Program in Health Science Education
Faculty of Medicine Siriraj Hospital
Mahidol University

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was submitted to the Faculty of Graduate Studies, Mahidol University
for the degree of Master of Science (Health Science Education)
on
July 26, 2019

.....

Miss Chananya Hokierti
Candidate

K. kaittiyos
.....

Kaittiyos Kuldejchaichan,
Ph.D.
(Educational Research Methodology)
Chair

.....

Asst. Prof. Kasana Raksamani,
M.D., M.H.P.E.
(Health Professions Education)
Member

.....

Asst. Prof. Tripop Lertbunnaphong,
M.D., Dip. Thai Board of Obstetrics
and Gynaecology
Member

.....

Assoc. Prof. Rungnirand Praditsuwan,
M.D., Dip. Thai board of Internal Medicine
Member

Varaporn Akkarapatumwong
.....

Assoc. Prof. Varaporn Akkarapatumwong,
Ph.D. (Science)
Acting Dean
Faculty of Graduate Studies
Mahidol University

.....

Prof. Prasit Watanapa,
M.D., Ph.D.(Surgery)
Dean
Faculty of Medicine Siriraj Hospital
Mahidol Universit

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Chananya Hokierti

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BARRIERS AND FACILITATING FACTORS TO PASS NATIONAL LICENSE EXAMINATIONS: SUGGESTIONS FROM INTERNATIONAL MEDICAL GRADUATES

CHANANYA HOKIERTI 5937362 SIHE/M

M.Sc. (HEALTH SCIENCE EDUCATION)

THESIS ADVISORY COMMITTEE: KASANA RAKSAMANI, M.D.,
TRIPOP LERTBUNNAPHONG, M.D.

ABSTRACT

Only 10.7% of Thai international medical graduates pass national license examinations every year. Knowing the barriers and facilitating factors of national license examinations may improve the passing rate, leading to more certified doctors to serve Thai healthcare system. This study was to understand the international medical graduates' perspectives of barriers and facilitating factors affecting the passing rate of national license examinations. Fifteen participants having experience in the internship program at Nopparat Rajathanee Hospital were selected through purposive sampling in this phenomenology, qualitative study. Eight participants were divided into 2 focus groups, while 7 participants were individually interviewed using semi-structure questions. The audio data were transcribed verbatim and analyzed with thematic analysis. The results showed that barriers of the international curriculum comprised teaching methods, less attention from teacher, difficulties in foreign language, different scope of the study and national license examination, and lack of facilities. Individual barriers included less perceived barriers, low capacity to change, and less preparedness for practice. Differences of examination methods, disasters and pollution, parenting supports were also identified. Facilitating factors were non cultural related factors in the individual level. In conclusion, barriers to national license examinations were non-cultural related factors in both training and individual levels, whilst, facilitating factors were non-cultural related factors in the individual level. All participants suggested early preparation for national license examinations and strongly recommended domestic electives in early clinical year.

KEY WORDS: INTERNATIONAL MEDICAL GRADUATES/BARRIERS/
NATIONAL LICENSE EXAMINATIONS

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อุปสรรคและปัจจัยสนับสนุนสำหรับการสอบผ่านเพื่อรับใบอนุญาตเป็นผู้ประกอบวิชาชีพเวชกรรมและข้อเสนอแนะในทัศนะของบัณฑิตแพทย์นานาชาติ

BARRIERS AND FACILITATING FACTORS TO PASS NATIONAL LICENSE EXAMINATIONS: SUGGESTIONS FROM INTERNATIONAL MEDICAL GRADUATES

ชนันยา ห่อเกียรติ 5937362 SIHE/M

วท.ม. (การศึกษาวิทยาศาสตร์สุขภาพ)

คณะกรรมการที่ปรึกษาวิทยานิพนธ์: กษณา รักษมณี, M.D., ตรีภพ เลิศบรรณพงษ์, M.D.

บทคัดย่อ

บัณฑิตแพทย์นานาชาติที่สอบผ่านได้รับใบประกอบวิชาชีพเวชกรรมได้เพียง 10.7% ของบัณฑิตแพทย์นานาชาติแต่ละปี หากได้ทราบอุปสรรคและปัจจัยสนับสนุนน่าจะทำให้อัตราการสอบผ่านมากขึ้น การศึกษานี้มีวัตถุประสงค์เพื่อทำความเข้าใจทัศนะของบัณฑิตแพทย์นานาชาติเกี่ยวกับอุปสรรคต่อการสอบใบประกอบวิชาชีพโดยทำการศึกษาแนวปรากฏการณ์วิทยา คัดเลือกกลุ่มผู้เข้าร่วมวิจัยจำนวน 15 คนจากบัณฑิตแพทย์นานาชาติที่ผ่านหลักสูตรแพทย์ฝึกหัดจากโรงพยาบาลนพรัตนราชธานี ทำการเก็บข้อมูลด้วยกันสนทนากลุ่ม 8 คน และ การสัมภาษณ์เดี่ยวอีก 7 คน โดยใช้แนวคำถาม และบันทึกข้อมูลเป็นไฟล์เสียง เมื่อถอดไฟล์เสียงแล้วนำมาให้รหัสโดยผู้วิจัย 3 คน จากนั้นวิเคราะห์โดยแยกเป็นประเด็นสำคัญ ผลการศึกษาพบว่าบัณฑิตแพทย์นานาชาติคิดว่าอุปสรรคที่สำคัญคือวิธีการสอนในหลักสูตรต่างประเทศ อาจารย์ไม่ค่อยสนใจ อุปสรรคด้านภาษา ความแตกต่างของเนื้อหาที่เรียนกับเนื้อหาที่สอบและสิ่งอำนวยความสะดวกที่ไม่เพียงพอ ในด้านปัจจัยส่วนบุคคลกล่าวถึงน้อยกว่า คือไม่ค่อยรับรู้ถึงอุปสรรค มีความสามารถในการปรับตัวน้อย และไม่ค่อยมีการเตรียมสอบ นอกจากนั้นได้กล่าวถึงวิธีการสอบที่ไม่คุ้นเคย การพบเจอภัยพิบัติทางธรรมชาติระหว่างเรียน และการขาดการสนับสนุนจากผู้ปกครอง ปัจจัยสนับสนุนการสอบใบประกอบวิชาชีพเป็นปัจจัยส่วนบุคคลที่ไม่เกี่ยวกับความแตกต่างด้านวัฒนธรรม สรุปผลการศึกษา อุปสรรคต่อการสอบใบประกอบวิชาชีพเป็นปัจจัยที่เกี่ยวกับการฝึกอบรม และไม่เกี่ยวกับความแตกต่างด้านวัฒนธรรม ปัจจัยสนับสนุนการสอบเป็นปัจจัยส่วนบุคคลที่ไม่เกี่ยวกับความแตกต่างด้านวัฒนธรรม และบัณฑิตนานาชาติแนะนำให้เตรียมตัวสอบตั้งแต่เนิ่นๆและเน้นให้กลับมาฝึกในประเทศในรูปแบบวิชาเลือกระหว่างปิดเทอมตั้งแต่ชั้นปีที่เริ่มปฏิบัติงานในโรงพยาบาล

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LIST OF ABBREVIATIONS

IMGs	International medical graduates
OSCE	Objective structured clinical examination
ELTS	English language testing service
NL	National license examination
NL 1	National license examination step 1
NL 2	National license examination step 2
NL 3	National license examination step 3

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CHAPTER I
INTRODUCTION

1.1 Background

In Thailand, there are approximately 2,700 certified general physicians per year being granted by 25 medical schools despite almost 40,000 applicants.[1-9] Thus, the applications for international medical programs abroad can be alternatively one of the choices. In August 2017, a number of 212 foreign medical schools certified by the Medical Council of Thailand, located in China, the Philippines, the United States, the United Kingdom, India, Australia, Malaysia, Japan, Russia, Romania, Poland, Czech Republic, and so on.

In this era of globalization, there have been several research studies on global migration of doctors. International medical graduates (IMGs) hold an important role in healthcare worldwide, accounting for 31% of United Kingdom's physicians, followed by one-fourth of the Unites States, 5% in Germany and France, and less than 2% in The Netherlands.[10] The pattern included migration from developing countries to more developed countries or between neighbor countries. [11]

Nonetheless, the barriers and facilitating factors of IMGs have been identified in previous studies, both culture-related and non-culture ones.[12-17]

Different cultural issues in both professional and individual perspectives consist of parenting supports, sexual roles, accepted cultural behaviors, shared decision making, concept of patient-centered care, and other differences in hierarchy levels with supervisors, various health professions, and patients. These cultural differences can thus result in decreasing IMGs' confidence, difficulty in communications, and accessibility of supporting systems from supervisor,[12-17] which overall require cultural adaptation.

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Whilst, non-cultural barriers comprised different experiences in learning and teaching methods.[14] Different learning leads to the quality differences in IMGs, such as experiential learning with feedback and reflection in simulation, as well as role

play enhanced problem-solving skills. In the meantime, small group and peer feedbacks help increase self-awareness and self-reflection.[14]

In general, clinical skills are usually evaluated by the objective structured clinical examination (OSCE), using standardized patients. IMGs having one or more experiences in learning with the standardized patients tend to obtain higher scores in OSCE.[18]

Particularly, different organizational structures or norms of healthcare systems are addressed in many studies. For instance, some IMGs are from countries where nurses do blood taking, while in the host country, doctors have to perform this job themselves, which then confuses their roles and responsibilities.

Difficulties in languages and communication skills occurred not only in the fully understanding of the medical terms but also amidst the using of everyday language.[16,18-22] Hence, the IMGs' language and communication skills must be evaluated for their fluency in communicating with patients, colleagues, and supervisors. In some countries, the score from English Language Testing Service (ELTS) is a requirement for IMGs. However, there are several studies which demonstrate no correlation of testing between everyday languages and clinical language skills.

Other than testing of language and communication skills, the license examinations in many countries also consist of professional behaviors, as well as knowledge, and clinical competencies. It is not surprising that the national license examination and the skill testing scores are both lower in IMGs than domestic medical graduates.[18,23,24] According to the Medical Council of Thailand's regulations, any medical students who graduate from the certified foreign international medical schools have to complete the 1- year postgraduate program in any certified Thai hospitals and pass all three steps of national license examinations before their practice in Thailand.[25] Nevertheless, the passing rate of national license examinations is quite low 10.7%, with 13.2% in step 1, 22.2% in step 2, and 53.84% in step 3.[26] In Thailand, the number of IMGs accounts for only 2% of the physicians certified per year, but still considered as a loss in medical profession personnel resources after 4-6 years of educational investment. Hence, knowing these barriers during training and apprenticing leads to the opportunity and potentiality to increase the passing rate of national license

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examinations toward higher number of qualified physicians to serve in Thai healthcare system.

In previous studies, the IMGs is defined as a doctor who has graduated from a medical school outside the host country, in particular the home country or the third-party country. IMGs are differently defined as Thai doctors who have graduated from foreign medical schools and return to take the national license examinations for medical practice in Thailand. Their individual barriers may be similar to those domestic medical graduates, except the norms and organizational structures that they have encountered while studying abroad.

This study aimed to determine the perception of IMGs towards their potential barriers and facilitating factors to pass the national license examinations.

1.1.1 Domestic internship program at Nopparat Rajathanee Hospital

The IMGs internship at Nopparat Rajathanee Hospital is a 12-month clinical program. The interns rotate to major wards: internal medicine, surgery, obstetric-gynecology, and pediatrics for a period of 2 months per ward, and minor wards: ophthalmology, ENT and general practitioner's outpatient department, anesthesiology, orthopedics and community medicine for a time of 1 month per ward. Before starting the internship program, the hospital staffs prepare a 5-day, pre-training course which consists of the introduction to hospital facilities and wards, Thai healthcare systems and situations, lectures and basic workshop of each major wards.

After the 1-year internship program, IMGs obtain professional habits and attitudes, communication and interpersonal skills, basic medical knowledge and clinical skills, technical and procedural skills, and continuous professional development skills. The program comprised the academic and clinical practice parts. In the academic part, there are 20 core interactive lectures from all departments, every other week for each lecture, with 3 hours per session. Whereas, other sessions on basic medical science review are taught by interactive lectures. During the internship rotation to each ward, the corresponding departments independently conduct case conferences, mortality and morbidity conferences, bedside teachings, and journal club. For the part of clinical practice, the interns individually follow their mentors as an apprentice, performing history taking practice, physical examination skills, and

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clinical thinking skills. They also observe professional behaviors, communication, and interpersonal skills directly from the mentors as some of their recognized role models. The primary objective of mentoring is to monitor the longitudinal progression of interns. The mentors also tend to alter personal assignment tailoring differently for each intern, and try to correct both individual, and professional culture differences.

1.1.2 National license examination in Thailand

According to the Medical Council of Thailand's regulations, medical students who have graduated from abroad are required to pass the 1-year internship program in any certified hospitals while preparing for national license examinations. There are 3 steps of Thai national license examinations (NL). The first one is NL step 1 (NL 1) with 300-item multiple choice questions (MCQs) in basic medical sciences. NL step 2 (NL 2) includes 300-items MCQs in clinical sciences. The graduates have to pass NL 1 and NL 2 before applying to the last step, NL step 3 (NL 3), or the clinical practice examination using objective structured clinical examination (OSCE), modified essay questions (MEQs), and long case examination held by the certified Faculty of Medicine across the country from January to March.[11] Nonetheless, the passing rate of international medical graduates' national license examination is only 10.7%. With the lack of available applications for their examination, many students who complete domestic internship programs have to wait for more than 2 years to apply for national license tests especially OSCE, MEQs, and long case examination, causing a delay for medical practice.

1.2 Conceptual framework

In this study, most of the IMGs migrated to the host country after completing the home country's medical programs. The variation of studies at the home country was observed. A lower score in national license examinations compared to domestic medical graduates was found in many studies. Problems incurred between learning transfer process. Factors affecting the learning transfer process were demonstrated in the learning transfer theory as described by Holton and Baldwin's training transfer process model. [27,28] This model was well-constructed with factors from

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learners, organizations, and learning events. While IMGs barriers were caused by international migration and transcultural dimension model was another model to explain the differences.[29] Hofstede's cultural dimension model was well-known for transcultural transfer using enormous data from IBM survey research from many countries all over the world. The variety of international medical schools where participants graduated also caused different gaps in knowledge and clinical competence. Hence, IMGs must utilize their most efforts at postgraduate training in the host country to fill those gaps.

1.2.1 Holton and Baldwin's learning transfer process model

The conceptual model of learning transfer process was proposed by Holton and Baldwin in 2003.[27] This model focused on three general groups which were the essence of learning transfer system. The 3 groups included learners and team, learning events and the organizational contexts. Learners and team were inputs for the learning transfer process, including the abilities of learner and team's for changes, motivation, individual differences, and prior experiences with the transfer system. During the learning events, there were two sources of interventions 1) learner and team interventions and 2) organizational interventions. These two sources of interventions could have an impact before, during, and after the learning events.

According to this model, factors affecting the transfer process were from IMGs themselves, support of hospital and program, other interventions from IMGs during the transfer process, as well as the contents and design of internship program.

1.2.2 Hofstede's cultural dimensions

Hofstede presented 4 cultural dimensions based on IBM survey research in 1967-1969 and 1971-1972.[29] These dimensions were individuality-collectivity, power distance, uncertainty avoidance, and masculinity-femininity. Then a long-short term orientation was added as the fifth dimension.

Among countries, there was different distribution score of those 5 dimensions. In a meta-analysis study, the effect of cultural value was less than personality traits, yet but it became stronger in culturally tighter countries.[29,30]

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In previous studies, cultural barriers of IMGs were power distance, masculinity-femininity, and individuality-collectivity.

Power distance was mentioned as a hierarchy between students and clinical teachers or doctors and patients.[16,18] Masculinity-femininity cultural dimension was identified as differences in sexual roles and behaviors accepted in clinical setting. Individuality-collectivity cultural dimension was referred in colleagues' empathy and supports. People in the collectivity of cultural dimension desired colleagues' empathy and supports to feel they were accepted into the same group or community.[14]

In transcultural migration studies, cultural differences were observed in participants who needed culturally related guidance. Coping with cultural difficulties, Tylor divided the cultural competency development for nursing into 4 stages[31], including cultural awareness, cultural knowledge, cultural sensitivity, and cultural competence. It was essential that similarity and different health beliefs and behaviors across cultures had to be meaningfully learned so that the healthcare personnel can understand their problems. Then, the understanding health beliefs and behaviors in the second stage led to some changes in healthcare personnel's points of view. They gained trust, acceptance, and respect from one another through healthcare personnel-patient relationships. In the stage of cultural competence, the application of stage 1-3 resulted in the development of transcultural clinical skills in anti-racist perspectives.

Both the transfer process model and the cultural dimensions were the inputs or individual differences. Individual level was the assumption of learner or team factors and learner or team interventions in Holton and Baldwin's model which included learner or team abilities, motivation, individual differences, prior experience, learner and team preparation and maintenance. At the individual level, barriers found in previous studies comprised parenting traditions, sexual roles, acceptable behaviors, capacity to change, practice preparation, perceived barriers, and role identity.

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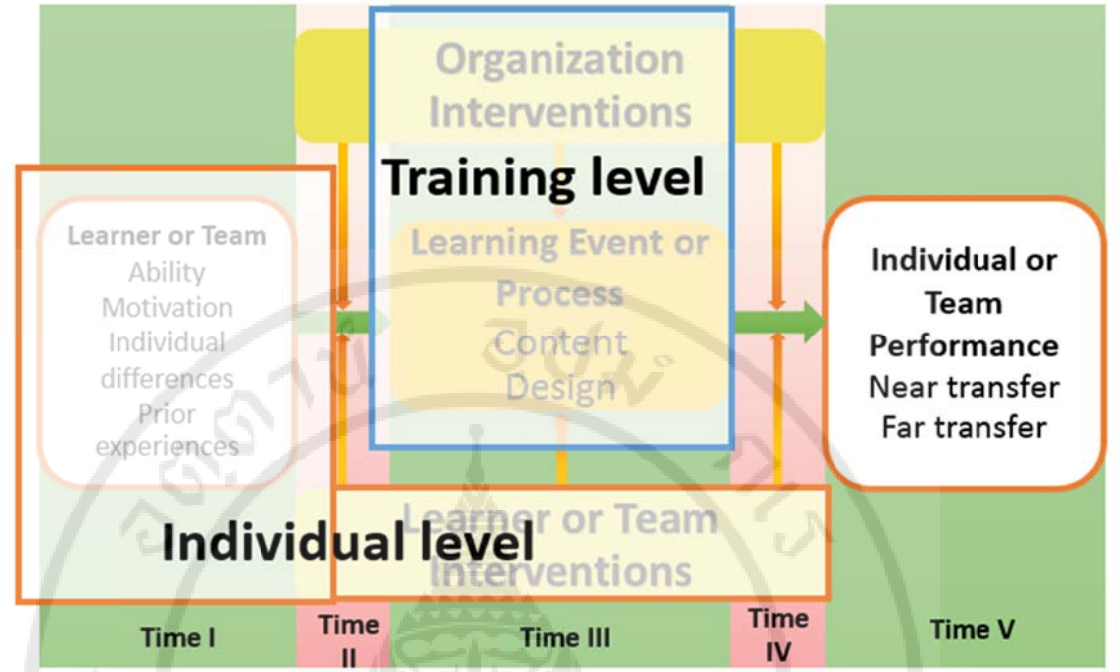

Figure 1.1 Individual level and training level from Holton and Baldwin's model

In addition, training was another level derived from learning events and organizational interventions in Holton and Baldwin's learning transfer process model consisting of learning content, learning design, organizational preconditions, and organizational supports. In previous studies, these factors were described as concepts in patient-center care, shared-decision making, hierarchy status, exposure to different learning and teaching methods, attention from teachers, and role model recognition, language difficulties, organizational structure of health care system, and organizational supports.

The populations in this study were IMGs who went to study abroad and came back for practice in the home country. Patterns of immigration were different from previously defined IMGs. Therefore potential barriers to NL may be different. Knowing their perceptions on potential barriers affected the improvement of interventions in the post-graduated domestic internship program towards a higher passing rate of NL.

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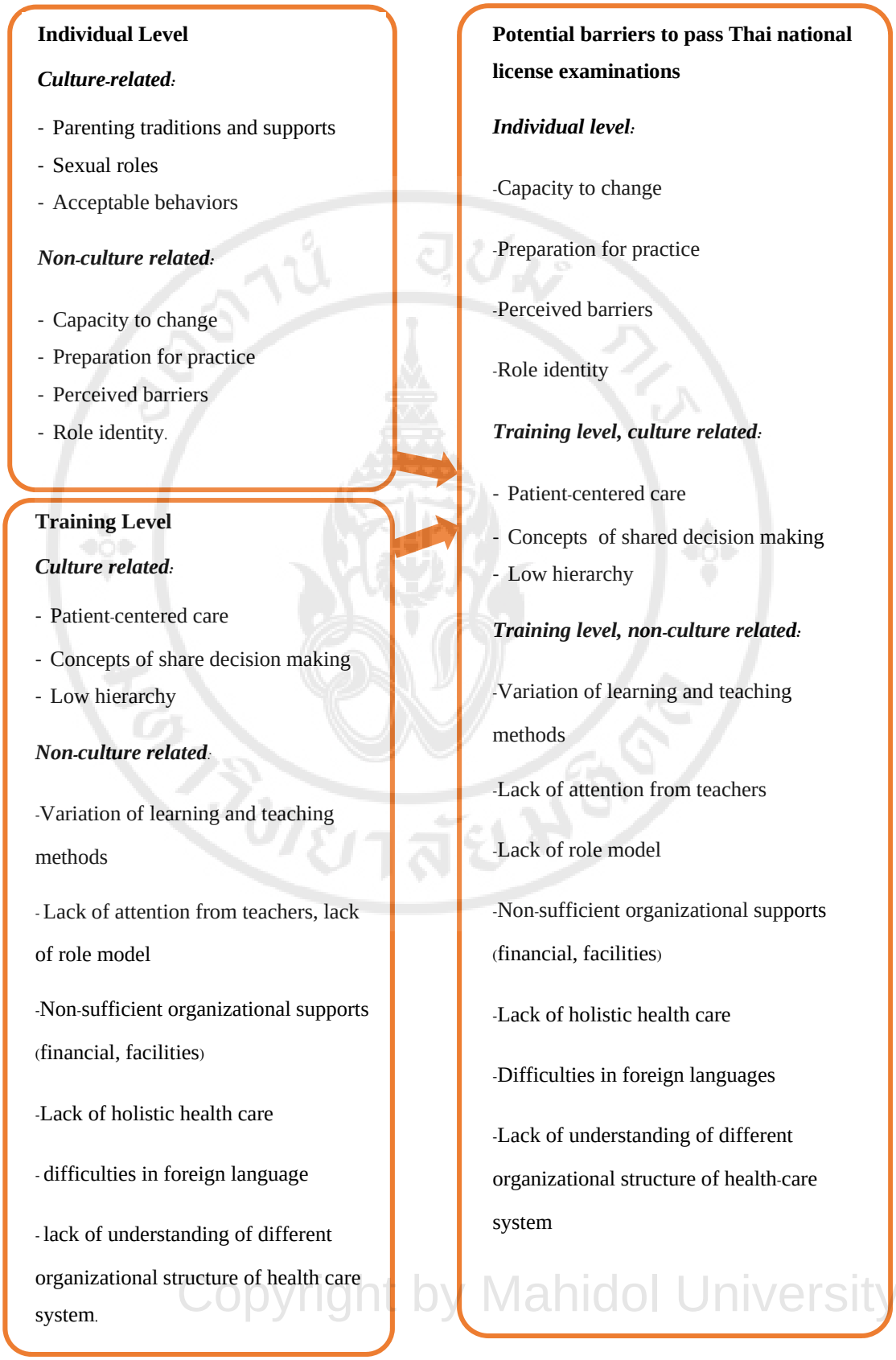

Figure 1.2 Conceptual framework

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1.3 Research question

The research question was how international medical graduates perceive the barriers to national license examinations.

1.4 Objectives

Primary objective was to understand the international medical graduates' barriers to pass national license examinations.

Secondary objective was to determine the international medical graduates' facilitating factors to pass national license examinations.

1.5 Hypothesis

Potential barriers to pass national license examinations in the perspectives of international medical graduates were non-cultural related factors, while the potential facilitating factors to pass national license examinations were non-cultural, individual factors.

1.6 Scope of the study

The study was conducted to understand the learning transfer system of the IMGs especially the barriers and facilitating factors affecting the passing rate of national license examinations. These barriers occurred during international medical programs and domestic internship programs. Also these barriers were categorized into 2 levels: individual and training levels. This study was performed at Nopparat Rajathanee Hospital from June 2017 to July 2019.

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1.7 Definitions

1.7.1 International medical graduates or interns were Thai interns in the domestic internship program at Nopparat Rajathanee Hospital who graduated from foreign medical schools certified by the Medical Council of Thailand and return to receive medical license to practice in Thailand.

1.7.2 Domestic internship program was the one-year program for international medical graduates at Nopparat Rajathanee Hospital. The program was required by Medical Council of Thailand for international medical graduates before their requesting to application to obtain national license.

1.7.3 Potential barriers were possible barriers affecting international medical graduates' national license examinations and the passing rate. They were divided into

1) Individual level: the potential barriers considered by international medical graduates to be a personal issue or individual level.

2) Training level: the potential barriers considered by international medical graduates to incur during training of and domestic programs which were divided into:

2.1 Cultural related barriers

2.2 Non-cultural related barriers

1.7.4 Capacity for change was the capability of each individual to effectively prepare or respond to unpredictable and volatile environmental contexts.

1.7.5 Perceived barriers were the personal perceptions of any difficulties in taking actions which included physical and psychological barriers.

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1.7.6 Role identity was a character that an individual played when holding a specific position in a society or organization.

1.7.7 Patient-centered care was the practice of caring for patients and their families in meaningful and valuable way towards each individual patient.

1.7.8 Shared decision making was a process in which both the patient and the IMGs contributed to medical decision-making processes. The role of IMGs was to provide information about diseases, and choices of treatments. Patients and IMGs worked together to make some decisions and choices of testing, treatments, and healthcare plans.

1.7.9 Hierarchy was the gap of respecting or questioning about the authorities of IMGs between patients, colleagues, and supervisors.

1.7.10 Organizational supports were the facilities and financial supports by the course providers.

1.7.11 Difficulties in foreign language were the language barriers encountered by IMGs in both medical terms and everyday language.

1.7.12 Understanding of different organizational structures of health care systems was the knowledge about health care systems in both the home country and host country including organizational structures related to the courses which IMGs took.

1.8 Significance of Research

International medical graduates accounted for 2% of the certified physicians each year in Thailand. Despite the increasing number and ration of Thai international medical graduates, the available applications for national license examinations were insufficient and the passing rate was also low. This affected such a loss in medical profession personnel resources. If the barriers of learning transfer systems were understood, perceived, and improved, while the facilitating factors to pass the national license examinations were revealed and encouraged, there would be

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more general practitioners to solve the insufficient number of doctors in health care system.

1.9 Ethical consideration

The study protocol was carefully constructed with ethical considerations. The questions using in the study were cautiously considered for not letting the participants feel uncomfortable. All participants were informed about the purposes and the procedures in the study. The data security was ensured to the participants that their valuable information and humanity would be respected. Sensitive issues were asked gently with a normal tone of conversation in an individual private interview. The participants were allowed to stop giving information or interview any time during the study. The protocol of the study was approved by Nopparat Rajathanee Ethical Committee and Siriraj Institutional Review Board with a certificate of approval number Si 540/2018. The information obtained during the study was kept as a security log-in personal computer, which could be accessed only by the interviewer and the transcriber. The transcripts were kept on the same personal computer and allowed to access by only the researcher. All personal information was used only in the study. The audio and transcript files were deleted after completed the study.

1.10 Methods

1.10.1 Study design

A phenomenology, qualitative study with a descriptive approach was designed and divided into 2 parts. The first part was focus groups which mainly to identify barriers and facilitating factors of passing national license examinations, together with the strengths of the IMGs in their perspectives. The second part was an individual interview in 2 characteristics of the participants, the IMGs who did not pass any national license examination and the IMGs who passed all national license examinations. The individual interview of the first group was determined to an in-

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depth exploration of the barriers and facilitating factors of passing national license examinations. Whereas, the individual interview of the second group was to identify the facilitating factors of passing national license examinations.

1.10.2 Sampling and recruitment

The study included purposeful samples of Thai international medical graduates who were in the internship program at Nopparat Rajathanee Hospital during the year 2016-2017. They were all invited to participate in the study by email. All participants were divided into groups according to the steps of their passing national license examination.

1.10.3 Data collection

All participants were informed about the study and the written informed consent were obtained.

There were 2 phases of data collection. Phase I was done in the focus groups. All participants in the focus group were moderated by researcher. The contexts for the focus group informally conducted in a private room in a coffee shop to make them more comfortable. The time for data collection in the focus groups lasted 61 to 181 minutes. Their personal data were kept confidential.

The process in the focus group was divided into five parts. The first one aimed to identify the inspiration of becoming a doctor and the decisions to apply for the international medical program. The second part was to remind and determine the difficulties and barriers during study abroad, both in daily life and at the training. The third part was to state some difficulties and barriers during the domestic internship program. The fourth part was to discuss about the difficulties regarding national license examinations and preparation. The final part was to encourage the IMGs to illustrate the strength of IMGs and some suggestions towards better national license examinations and higher passing rate.

Phase II was an individual interview of those with passing and non-passing the national license examinations. All of them were invited to participate in another session of private interview with the second semi-structured questions.

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The data of the focus groups and interviews were digitally recorded as audio files and kept in a security log-in computer immediately after each focus group and interview session which could be accessed only by the interviewer and the transcriber. The notes were taken on the setting of the interview and atmosphere of the interview date. The discussions were also done with after the focus groups and interview to allow data interpretations.

1.10.4 Data analysis

Recorded files were transcribed verbatim by research assistant. Also they were separately analyzed with open and axial coding by 3 researchers (CH, SS and PH) before thematic analysis was performed. Those three researchers completed a qualitative research course and had an experience of holding the focus group and individual interview. The shared thematic contents were reported in the section of results. The disagreements in thematic analysis of the contents were consensus by the three researchers. All recorded files were deleted after completed the study.

1.11 Beneficence of Research

Understanding the contexts, barriers and facilitating factors affecting the passing rate of the national license examinations enhanced the comprehension of the learning transfer system in Thai IMGs. This was so that those Thai IMGs became aware of the barriers and facilitating factors which encountered them during the training program in a bid to prepare for the Thai national examinations. Nonetheless, additional training programs should be conducted for tailoring overall barriers and facilitating all factors found in the study towards more qualified physicians in Thai healthcare system.

1.12 Summary

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During the era of insufficient doctors in Thai healthcare system, the inability of IMGs who could not pass the national license examinations was considered as a big loss in medical personnel resources. The study aimed to

understand the learning transfer system of the IMGs by explore their perspective upon barriers and facilitating factors to pass the national license examinations. Those identified factors led to more passing rate of national license examinations and suggested some solutions through the IMGs' perspective, using focus group and individual interview.

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CHAPTER II
LITERATURE REVIEW

In the developed countries, international medical graduates (IMGs) play a major role in the healthcare system. The IMGs account for 31% of physicians in the United Kingdom, followed by 25-28% of physicians in the United States and Canada, 5% in Germany and France, and less than 2% in the Netherlands.[10] Most of the IMGs came from lower economic status countries.[10,32] Among these IMGs, many barriers during postgraduate training and practicing had been identified. The host country's organization or hospital prepared the interventions for IMGs in a bid to decrease the gap of knowledge and clinical competency. [33-34]

Factors influencing the learning transfer system were observed in Holton and Baldwin's model of learning transfer process, while international doctor migration was also affected by cultural differences. The model of Hofstede's cultural dimensions was chosen to explain about those differences. After knowing the barriers, the postgraduate training or supporting system for IMGs should be better constructed.

2.1 Related Theories

2.1.1 Holton and Baldwin's learning transfer process model

Factors affecting the learning transfer system were mentioned by Holton and Baldwin in their model of learning transfer process in the book "Improving learning transfer in organizations" developed from other models by Baldwin and Ford proposed in 1988, which divided the learning transfer process into 5 time points.[27]

Time point I was when the learners and team started to be in the learning environment. At this time frame, the learner and team were the input for the transfer system. Factors affecting the input were the ability to transfer learning of the learners, motivation, individual differences and prior experiences of learning transfer. Time

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point II was before the learner and team were brought into learning events, they would be affected by the organization interventions and learner and team interventions. Time point III was during the learning events. In this time point, factors affecting the transfer system consisted of the learning events, organizational support, and learners and team interventions. Again, in Time point IV, after the learning events, organizational interventions as well as learners and team interventions also affected the system. Finally, Time point V was when the learners and team showed the performance which could neither transfer to the short-term outcome (near transfer) or long-term outcome (Far transfer). The model of learning transfer process model is shown in Figure 2.1.

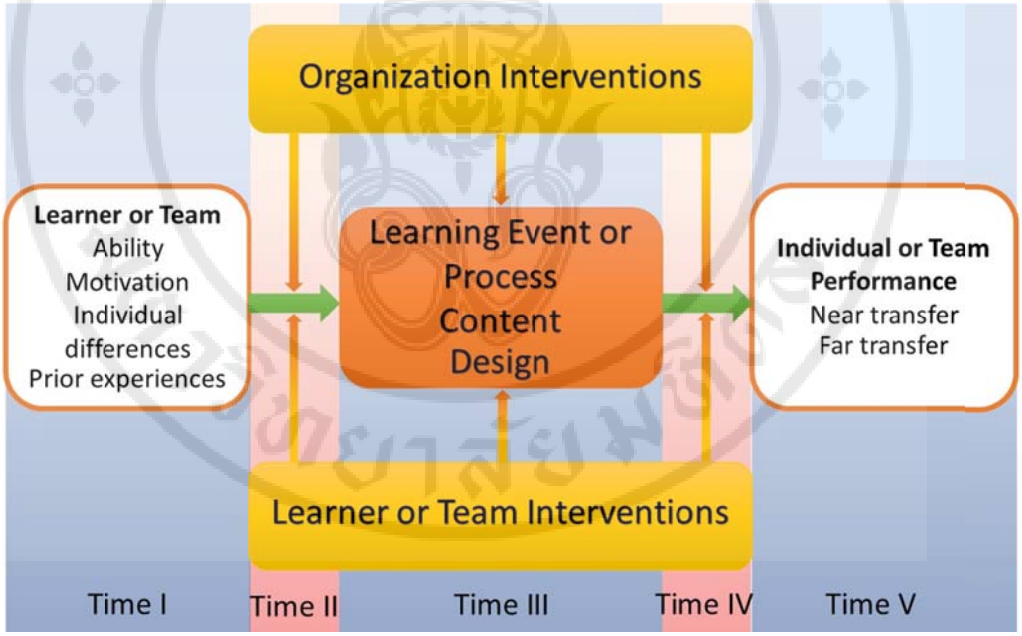

Figure 2.1 Holton and Baldwin's learning transfer process model

In this study, the researcher employed the model of learning transfer process to build a framework of barriers and facilitating factors into two levels: the individual level, and the training level. The individual level included Time point I's learners or team's input factors, Time points II-IV's Interventions from learner and team. The training level consisted of Time points II-IV's learning events and interventions from the organization.

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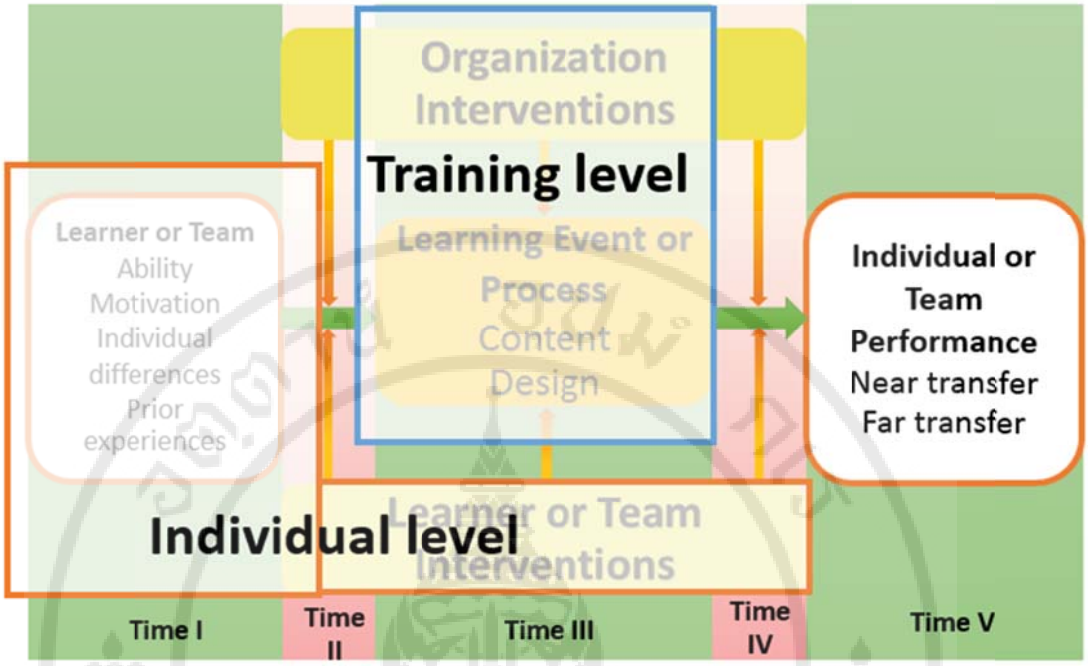

Figure 2.2 Individual level, training level in Holton and Baldwin's model

2.1.2 Hofstede's cultural dimensions model

International medical graduates were all transferred between nations. Culture differences were demonstrated in previous studies and transcultural barriers were identified in many studies. Although it was critique as out of date, the model of Hofstede's cultural dimensions has been used so far.[35] The model was tested many times to ensure the results of comparison scores between countries. The 5 cultural dimensions can be described as follows.

The first cultural dimension is the individuality-collectivity defined as "the degree to which people in a country prefer to act as individuals rather than a member of the groups".[10] Individualism is a framework in which people take care of themselves and only immediate family, while collectivism is a framework in which people in that society have strong in-groups and out-groups ideas. They tend to look after each other in the same group. According to Hofstede's model, Thailand has an individualism index of 20, the same rank as China at the level of score = 17-23, which is more collectivism.[36] Philippines, India, and Russia are in a more individual rank of score = 24-32. Most of the European countries (score = 66-76), Canada and the United States (score = 77-91), are the most individualists.

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Power distance is defined as “the extent to which a society accepts the fact that power in institutions and organizations is distributed unequally”. Thailand is moderately high with power distance index of 64, larger power distance than Australia, United States, and Canada, but smaller power distance than China, India and other South-east Asia countries.[29, 30, 36]

In the masculinity-femininity dimension, masculinity is defined as the dominant in society and is “assertiveness and acquisition of money and things”. Femininity is defined as the feminine dominant in society, with friendly atmosphere, position security, physical conditions, and cooperation. Thailand is rather femininity, with the lowest masculine index score in Asia of 34. Whereas, more masculinity is Malaysia and Canada. China, the Philippines, and the United States are the most masculinity. [29, 30, 36]

Uncertainty avoidance is defined as “the extent to which members of the culture feel threatened by uncertain or unknown situations and avoid these situations by providing greater career stability with more formal rules, not tolerating deviant ideas and behaviors”. Thailand has an uncertainty avoidance index of 64 which is considered in middle rank. While other IMGs’ countries are considered as lower uncertainty avoidance rank. [29, 30, 36]

For the last dimension, long-short term orientation, Thailand has long term orientation index of 56, which is rank 8th among 34 countries.[36]

According to each cultural dimension, there are differences between Thai and other Asian countries.

In previous studies, cultural related factors were identified. Each cultural related factors were categorized into 1) cultural related, individual level factors and 2) cultural related, training level factors. Others than these cultural related factors were categorized into 1) non-cultural related, individual level factors and 2) non-cultural related, training level factors.

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2.2 Factors affecting learning transfer process

2.2.1 Individual level factors

Individual level factors in this study consisted of the learner and team inputs in time point I and the learner and team interventions in time point II-IV in Holton and Baldwin's model of learning transfer process. The factors are divided into cultural related and non-cultural related.

Culture-related individual-level factors are parenting traditions and support, sexual role, and acceptable behaviors. Non-culture related individual-level factors are capacity for change, preparedness for practice, perceived barriers and role identity.

2.2.2 Training level factors

Factors from learning events in time point III and organization interventions in time point II-IV were included in the training level factors.

Training level barriers are divided into two types: cultural related and non-cultural related barriers. The first cultural related barrier is that IMGs are not familiar with patient-centered care and the concept of shared decision-making. In their home country, a physician is the one who decided the procedure or treatment for patients. However, in their host country, patients are more active in making decisions. The second cultural related barrier is the separation of relatives. In their home country, caring plans are rather discussed with the family than the patients themselves. The third cultural related barrier is the lower hierarchies in physician-patient, physician-supervisor, and inter-professional relationships.[16]

Non-cultural related barriers are identified as a variety of learning and teaching methods, lack of attention from teachers, inadequate role model, difficulties in a foreign language, lack understanding of the different organizational structures in healthcare system.[13, 14, 16, 17, 20-22]

Problems related to teaching and evaluating methods that influence national license examinations include the variation of different methods in the examination such as standardized patients and OSCE.[22]

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When considering the barriers for national license examinations, the teaching and evaluation methods in the undergraduate medical program are especially

varied with inexperience testing formats, such as feedback, clinical skill examinations and use of standardized patients. The IMGs having seen standardized patients during training or previous examinations can perform higher score on history, physical examination, communication, and interpersonal skills.[22-24]

Many of studies have focused on the difficulties of daily foreign languages and medical terms. IMGs cannot distinguish between usual language and medical terms resulting in a loss in communication with supervisors, other health care professions, and patients despite having a high score in English proficiency test.[16]

Each host country has their own national license examinations and regulations to qualify IMGs before their medical practice in the home country. The evaluation consists of knowledge, clinical competency, professional behaviors and communication skills including native language fluency.[17, 24, 28] Language skills are certified by the international standard language examination. They can also evaluated by an evaluator or during clinical competency examination with standardized patients, or in a workplace by other healthcare professions such as nurses.[22]

In Thailand, the certified IMGs by national license examinations account 2% of all physicians each year. In this study, IMGs were all Thais and graduated from domestic high schools before going to medical schools abroad or completing the first degree while applying for international medical schools. Most of them graduated from medical schools in Asia such as China and the Philippines.

Cultural barriers of IMGs in previous studies were power distance, masculinity-femininity, and individuality-collectivity. IMGs felt different in power distance in the term of the hierarchy with patients, professional colleagues, and supervisors.[16] Individuality-collectivity concept was demonstrated as the shared decision making, with more individuality in the United States or the host countries.[16] However, most IMGs graduated from India. Unlike this study, the IMGs were mostly from the Philippines and China.

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2.3 Interventions supporting IMGs transition

With to the importance of IMGs and barriers during the transition process, there were previous reports on the supporting interventions in the transition process of

IMGs. The interventions were conducted either before or during postgraduate medical education ranging from an 8-hour to 10-month full-time program. Contents of the interventions frequently included clinical topics, cross-cultural competency, language training, host country information, and healthcare system. All studies applied different teaching methods including discussion, role-play, standardized patient encounters, mentoring and guided independent study.[14,33] In spite of the control group in some studies, none of them randomized the samples.

In the internship program of Nopparat Rajathanee Hospital. There was a 5-day pre-training course, which consisted of academic supports, organizational supports, host country information, and healthcare system without culturally related topics both social and organizational culture. Nonetheless, this pre-training course has not yet been evaluated.

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CHAPTER III
MATERIALS AND METHODS

3.1 Study Design

This was a phenomenology, qualitative study with a descriptive approach to identify the perspectives of international medical graduates toward the barriers and facilitating factors to help them pass national license examinations during their studying abroad and domestic internship program.

3.2 Study population

3.2.1 Source of the study population

The populations were Thai international medical graduates who graduated from the international medical program abroad and experienced the domestic internship program at Nopparat Rajathanee Hospital in the year 2016.

3.2.2 Methods of study population recruitment

The participants' e-mails, address and telephone numbers were obtained by research assistant from Nopparat Rajathanee Hospital. Data on internship program were collected from the applications of internship program. The data were allowed to use for the internship program and the improvement of internship program activities with a written consent.

The participants were invited to participate in the study by e-mail. Participants accepted the invitation by answering e-mail or by telephone to research assistant. Participants' names were transfer to numeric codes by research assistant. The participants who did not want to participate in the study could let the research assistant know by answering by e-mail or call the research assistant, or by did not answer the e-

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mail or telephone at all. Their consents were obtained before they participated in focus groups. Participants' traveling expense was covered according to distance of traveling.

Privacy of the participants was strictly protected by using numeric codes. The researcher could not access participants' name, e-mails or contact numbers. Results of the study were presented and discussed in non-personal way. All the recorded files were deleted after the study was done.

3.2.3 Selection criteria/inclusion criteria

In phase I, the focus group, the participants were purposeful selected with the following criteria

Inclusion criteria

1) The participants were Thai- international medical graduates.

2) The participants graduated from international medical programs certified by the Medical Council of Thailand.

3) The participants experienced the domestic internship program at Nopparat Rajathanee Hospital in the year 2016.

4) The participants gave a consent for participation in the study after being informed.

Exclusion criteria

1) The participants who were not willing to participate in the study.

2) The participants who failed to participate in the focus group.

Phase II, the individual interview, was to explore deeper in personal issues of extreme cases. Purposeful sampling participants were selected with the following criteria

Inclusion criteria

1) The participants were Thai- international medical graduates.

2) The participants graduated from medical programs certified by the Medical Council of Thailand.

3) Participants who applied to take national license examinations but did not pass any national license examinations or participants who already passed all the national license examinations step 1, 2 and all of step 3 examinations.

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4) The participants experienced the domestic internship program at Nopparat Rajathanee Hospital in the year 2016.

5) The participants gave a consent for participation in the study after being informed.

Exclusion criteria

1) The participants who were not willing to participate in the study.

2) The participants who failed to participate in the interview.

3.2.4 Sample size

Purposeful sampling was used to select international medical graduates who are the year 2016 interns at Nopparat Rajathanee Hospital and shared the same domestic internship program. The total number of the year 2016 interns were 36. The size of the focus group was 5-8 participants.[37]

In phase I focus groups was divided into 2 groups depending on passing level of the national license examination. The first focus group are who passed some or all NL. The second focus group are who did not pass any NL.

In phase II, the individual interview, the participants were purposefully selected from IMGs who did not pass any NL and those who passed all the NL.

3.3 Place

The face-to-face, focus group took place in a relaxing environment near Nopparat Rajathanee Hospital. Individual interviews were held in a private room. There was no non-participants involved in the focus groups and individual interviews.

3.4 Intervention

3.4.1 Data collection

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Phase I: Each focus group was conducted using semi-structured questions. The moderator began with participants' self-introduction. Then, the wide, open-ended

questions were proceeded. The participants were allowed to discuss freely within each main topic. Specific questions were asked only if the group did not mention those aspects. The focus group lasted 149-181minutes. Discussion of everyone in the focus group were audio digitally recorded. The recorded files were kept in a security log-in computer notebook immediately after each session of the focus group, which could be accessed by researcher. The atmosphere, discussion, and setting of the focus group were all recorded to allow later interpretation.

The language of the focus group and the individual interview was in Thai with some English medical terms. The focus group discussions were divided into five parts. The first started with self-introduction of each participant. The questions were in general. Then, the researcher asked about their family and parenting. Afterwards, questions were driven into the aim of becoming a doctor and the decision to apply for the international medical program. The second part was to remind and identify the difficulties and barriers while studying abroad both in daily life and at the training. The interview encouraged to show the feelings and talked on the experiences that changed over time until becoming an intern at Nopparat Rajathanee Hospital. The third part focused on the difficulties and barriers during the domestic internship program. The fourth part comprised some discussions about the difficulties of national license examinations and the preparation. The final part of the interview was to encourage the IMGs to reveal facilitating factors to pass NL and give some suggestions to improve national license examinations toward a higher passing rate.

In phase II, the participants who did not pass national license examinations or passed all examinations were individually interviewed with the second semi-structured questions. In the non-passing group, the interview was to further explore the barriers in passing national license examinations, especially in the individual level and some distinct events which might occur during the medical program training.

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In the passing all group, the interview aimed to identify the facilitating factors in passing national license examinations.

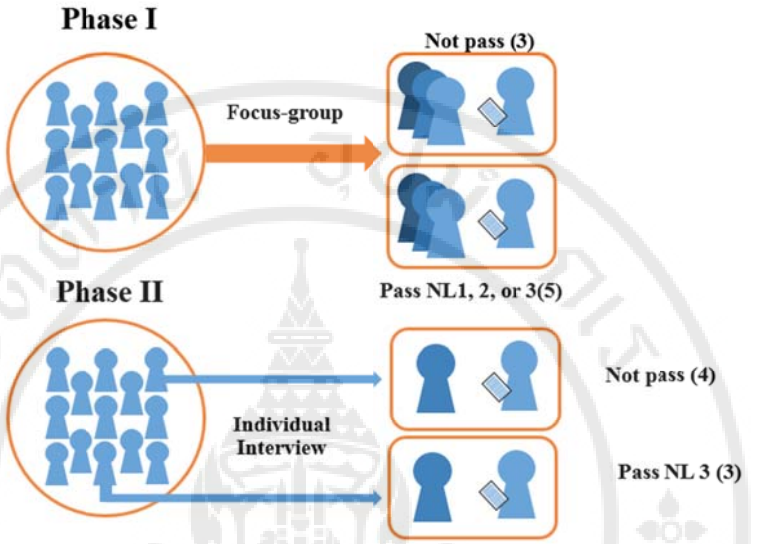

Figure 3.1 Data collection

3.4.2 Question development

From the theory of learning transfer process of Holton and Baldwin, the researcher categorized overall factors affecting the learning transfer process into the theoretical individual level factors and the training level factors, transformed by those in literature review of 15 factors. Factors from literature review which mentioned as personal, individual, or character is defined as individual level factors in this study. Factors which mentioned as training, organizational were defined as training level factors. The first 5 factors were the individual level and the rest was the training level. The questions were generated by primary researcher. There were 21 focus groups and individual interview questions developed in corresponding to those factors. The questions were reviewed by advisor and co-advisor. Then, they were reviewed by a qualitative research specialist with experience in qualitative research more than 5 years. The questions were adapted following the instructions given by the specialist. Table 3.1 showed all questions used in the focus groups and the individual interview with factors in corresponding to each question. The training level questions were listed according to timeline dividing into questions during preclinical years, clinical years and during internship program. The questions about the national license examinations

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were asked afterward. Then, the researcher asked about IMGs' suggestions for IMGs who want to pass national license examinations.

Table 3.1 Focus group and individual interview questions with factors corresponding to each question

	Barrier factors related to questions														
Question & Probe	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
1. Please introduce yourself and family. -parenting tradition -What is family's expectation upon you?					√										
2. Why do you want to be a doctor?		√													
3. Please share your impressive events.		√													
During the medical program															
4. How is the learning abroad? -Does it meet your expectation? -How is the environment? -What is the learning and teaching methods?									√	√	√	√			
5. What are you impressed?									√	√	√				
6. How is the supporting system?														√	√
7. What are the barriers in these years, in your opinion?	√	√	√	√											

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Table 3.1 Focus group and individual interview questions with factors corresponding to each question (cont.)

	Barrier factors related to questions														
Question & Probe	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**
8. How did you overcome those barriers?	√				√									√	√
9. How is the communication between you, patients and relatives? Why did it happen?			√			√	√	√				√			
During internship															
10. How is the environment? -Is it different from learning abroad? -How is the learning and teaching methods?									√	√	√				
11. How is the teaching and learning?									√	√	√				
12. What are the problems here during the training?	√	√	√	√		√	√	√	√	√	√	√	√	√	√
13. What do you recommend for jour junior? -What to prepare before the year? -What to do while training?	√	√	√	√					√	√	√	√	√	√	√
14. How did you overcome those barriers?	√				√									√	√
15. Is Health care system different?													√		

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Table 3.1 Focus group and individual interview questions with factors corresponding to each question (cont.)

	Barrier factors related to questions														
National license examinations															
16. Please give some suggestions concerning the examination. -How do you prepare for the national examination? -Are the contents you have learnt correlated with the examination?	√	√		√											
17. Does being IMGs affect the national license examination?	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
18. What is the strength of being IMGs?															
19. How did learning abroad affect the national license examination?															
20. How do you describe the strengths of IMGs?															
21. Any suggestions for facilitating national license examinations?															

1=Perceive barrier

2=Role identity, capacity for change

3=Acceptable behavior, sexual role

4=Preparation for practice

5=Parenting tradition & support

6=Patient-centered care

7=Concept of shared-decision making

8=Hierarchy

9=Learning & teaching methods

10=Attention from teachers

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11=Role model

12=Language

13=Organizational structures of health care system

14=Organizational support (Scholar)

15=Organizational support (Facilities)

3.4.3 Data analysis

The recorded files were transcribed verbatim by research assistant. As soon as each transcript was generated. Then, they were sent to the three researchers. The three researchers had their experiences in a qualitative research course with thematic analysis. Each researcher independently read the transcript thoroughly then assigned the open codes. A researcher generated open coding by hands and two by highlights in Microsoft word documents. After that, the open codes were grouped into axial coding and the initial theme was done by each researcher separately. The codes and the initial themes were reviewed by the first researcher, while different themes were consensus by the three researchers' meeting. The shared thematic contents were reported in the section of results. The subthemes were generated and were linked to representative quotes.

Data saturation was defined when no further code was assigned in the transcript. In this study, data saturation was reached with similar codes among transcripts.

The personal data were kept confidential. The results were discussed in the non-personal way. Suggestions about the internship program were compared with the existing program.

All of the recorded files were deleted after the study was completed.

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CHAPTER IV
RESULTS

4.1 Research Methods

The primary objective of the study was to understand the international medical graduates' perspective of barriers and facilitating factors affecting passing rate of national license examinations. It was hypothesized that the barriers were non-cultural related factors.

In the conceptual framework, potential barriers to pass Thai national license examinations were divided into 2 levels: individual level and training level. Individual-level factors comprised less capacity to change, less perceived barriers, preparedness for practice, and role identity. Whilst, training level factors were classified into two groups: culture related factors and non-culture related factors. Culture related factors were patient-centered care, concept of shared decision making and hierarchy. Non-culture related factors included variation of learning and teaching methods, lack of attention from teachers, lack of role model, non-sufficient organizational supports, lack of holistic healthcare, local language used in English curriculum, and lack of understanding on different organizational structures in health-care system.

Participants of phase I were in the focus groups while those of phase II were in the individual interview groups.

4.2 Participant Characteristics

There were 8 participants in phase I: focus groups. The first group consisted of 5 participants, two of which passed all the national license examinations and now in medical practice. Three participants passed NL1 and NL2. The second group had 3 participants who did not pass any NL.

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In the first group of five participants, two participants who passed all the NL graduated from the Philippines. Other three participants graduated from China. The second group of three participants who did not pass any NL, all graduated from China. The focus groups were in a separated room at café as requested by participants and took 149 and 181 minutes consecutively.

Whereas, seven participants were in phase II: individual interview. The interview also took place at cafés as participants requested. The time for interviews was from 61 minutes to 87 minutes for each participant. No participants of focus groups attended the individual interview. Four of them did not pass all three steps of NL. Three passed all three steps of NL and obtained medical practice.

Hence, a total of 15 participants, 6 male, and 9 female, aged 25-39 years, were included in this study.

4.3 Research Findings

Although the researcher designed to collect data in two ways: focus groups and individual interviews, the questions for individual interview tended to reach personal issues. The data on focus groups also showed personal issues. It may arise from the long duration of focus groups, thus personal information was reached. As a consequence, thematic analysis was done on both data in the same way from focus groups and individual interview.

4.3.1 Barriers to pass NL

The first part of the focus group and individual interview was analyzed about the barriers in NL. Major themes comprised the barriers during international curriculum, examination and individual differences, disasters, threatening conditions, and parenting style. These barriers affected the NL.

4.3.1.1 Barriers during international curriculum

1) Teaching methods

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All participants agreed that limited teaching methods could lead to less learning and different ways of thinking process. Participants only had

lectures and laboratory classes in pre-clinic years, but no other teaching methods included.

In clinical year, the participants from the Philippines had experiences with patients. They took history, examined the patients, and performed procedures by themselves without guidance from clinical teachers. They did not know what they were doing was right or wrong. A participant stated: *"The teacher just taught us once, then they let us do the procedures on our own with no guidance or feedback"* (F0104)

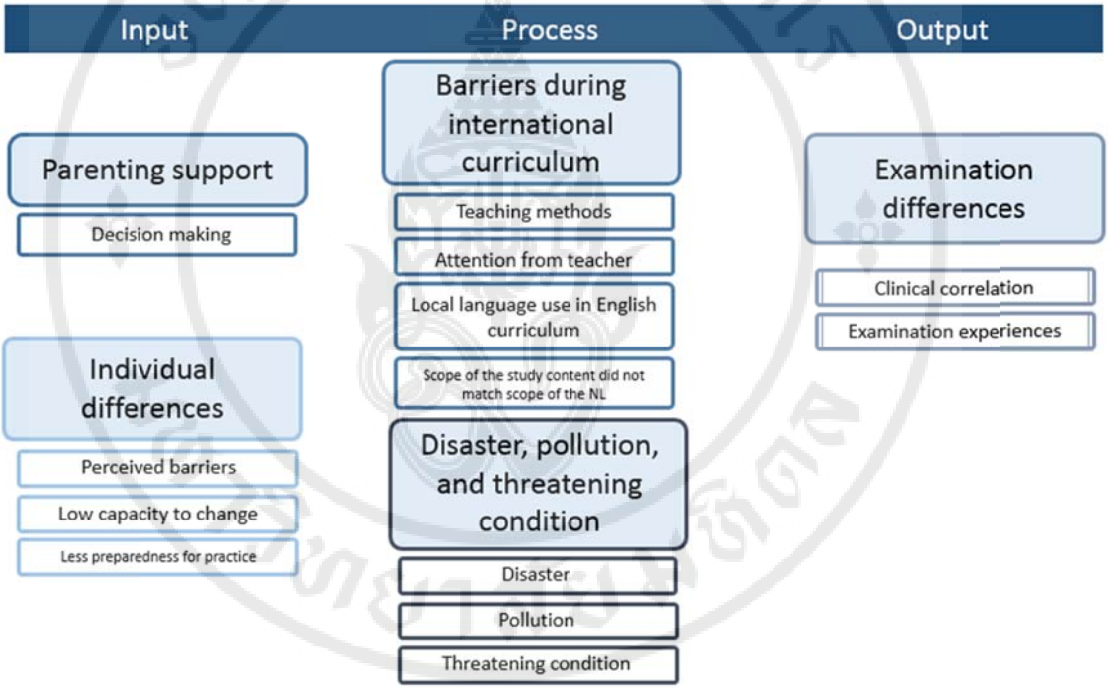

Figure 4.1 Barriers in NL

Most of the participants from China did not have an opportunity to contact with the patients. They had lectures in the hospital. They learned manual skills with simulations. They did not know about symptomatology and even how to approach a patient. A participant explained: *"Learning there was like learning from a blank paper. Preparing case presentation, and case report here in Thailand made me realize how to use the knowledge with patient care."* (I05)

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Another one added: *"They taught us to look at the cause to find the results but in real life with the patient, we saw the result first and sought for the cause."* (I07)

A participant not only practiced with simulations many times but also found a gap between simulations and real patients.

2) Attention from teachers

Participants complained they could not get attention from teachers. When they did not understand the lecture, they went to ask the teacher after class, but he ignored them. A participant complained: *"Even though the teacher can speak English but he explained to us in local language. I tried to ask, but he ignored me"* (I02)

3) Local language used in English curriculum

Although the participants were all in English curriculum, local language played a major role. Many of the teachers used local language together with English so the students could not fully understand them. A participant said: "*The teacher taught us in English with words of Tagalog in between and it was very fast. I could not catch it. When he explained more in the class, he used Tagalog. I wanted to know it too so I asked him in English but he could not explain in English."* (F104)

When the participants learned in clinical setting, local language was more important. Besides the difficult communication between students and clinical teachers, students and patients, the participants who were not fluent in local language had less opportunity to learn with real patients. Patients did not trust the participants to touch them. A participant said: *"If the patients heard me talking in English, they did not let me do the procedures."* (F201)

4) Scope of the study content did not match the scope of the NL.

Some participants focused on class examinations which were less content than Thai NL. A participant said: *"I learnt only to answer the class examinations. I didn't read anything further than that."* (F202)

There were differences in the prevalence of diseases among countries. A participant added: *"In USMLE, hematology part, it focuses on sickle cell disease, hemolytic anemia, and lymphoma. In Thai NL, the examination focuses on thalassemia. In China, there is a disease similar to dengue fever but it's not dengue fever."* (I07)

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A participant never saw and used a defibrillator. When he saw it in NL 3, the participant could not use it and failed the examination. The participant said: *"About procedures, we haven't been taught about defibrillator. While I rounded the internal medicine, I was involved in CPR but I only did the chest compression and interpreted the EKG. I never use defibrillator."* (F103)

5) Facilities

Some participants complained about inappropriate classroom, insufficient laboratory equipment while learning in pre-clinical year. A participant said: *"Comparing to Thais, lab equipment here in the Philippines is not sufficient. In my high school, a decade ago, was cleaner and better quality."* (I03)

Library was available but English textbooks were limited. Participants who learnt during clinical year in the Philippines had to buy equipment for patient examinations themselves. Even the medical devices, such as oxygen saturation monitor, and ophthalmoscope were also needed. A participant said: *"In clinical year, I had to buy personal neurologic percussion hammer, oxygen saturation monitor, and ophthalmoscope."* (I03)

Thematic analysis of the barriers during international curriculum was shown in Table 4.1

Table 4.1 Thematic analysis of the barriers during international curriculum

Open codes	Axial codes	Theme
-Conventional lectures -Laboratory sessions -Bedside teaching -No feedback -Lecture in the hospital	Teaching methods	

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Table 4.1 Thematic analysis of the barriers during international curriculum (cont.)

Open codes	Axial codes	Theme
-Ignore me, not helpful -No one to guide how to do the procedure -No one to assign work -Teacher lets Chinese students to do before foreign students.	Attention from teacher	Barriers during international curriculum
-Teacher uses local language in teaching. -Patient used local language. -Patients didn't let English-speaker do anything with them.	Use of local language in English curriculum	Barriers during international curriculum
	Scope of the study content did not match scope of the NL	

4.3.1.2 Individual differences

1) Less perceived barriers

Participants did not realize the importance of early preparation for the NL. Some participants waited until they came back to Thailand after graduation. Then, they began to concern about the examination. Some participant did not realize the knowledge and skill gap between IMGs and Thai medical students. A participant said: *"I should realize this problem before studying there. At the time, I only saw my friends there, and I thought it was enough to study like I did. But yes, it's not enough. I should came back for electives like others but I didn't."* (F201)

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2) Low capacity to change

Some participants knew they had to gather more knowledge and clinical skills but they did not know what to do. A few participants knew the gap but did nothing. A participant said: *"Others realize the obstacles as I did. They came back to attend electives in Thailand for compensation but I didn't."* (I05)

Besides some difficulties in foreign languages, the participants complained but did nothing to improve their language skills. While a participant, who had the same problem, took more language courses and she had more opportunity to learn from the patients. *"I took extra Chinese courses at a language institute…The clinical teachers knew that I can speak Chinese. He sent me to take the patient's history myself."* (I07)

3) Less Preparedness for practice

Participants showed they realized they did not have enough preparation for the examination. A participant said: *"Because I chose the program myself so I didn't prepare enough. I mean about checking the certified curriculum and how to prepare to be back for the NL. I contacted agency, but the staff was not helpful."* (I01)

A participant mentioned the time lapse between the moment she learnt the pre-clinic knowledge and when she took NL1. A participant said she waited too long before applying for NL1 after her graduation. The participant added: *"Even though I knew there were NL1, NL2 examinations. I didn't prepare enough. I didn't blame the curriculum. The curriculum I studied was integrated between pre-clinic and clinical parts. So when I came back for NL1, it was difficult to retrieve the pre-clinic knowledge"* (F103)

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Table 4.2 Thematic analysis of individual differences

Open codes	Axial codes	Theme
-Did not realize the problem	Less perceived barriers	Individual differences
-Did not act to solve problem -know the problem but do nothing	Low capacity to change	
-Did not prepare enough -Late preparation	Less preparedness for practice	

4.3.1.3 Examination differences

While the participants were familiar with MCQ which questions were straight forward, the Thai NL questions were clinical related.

In step 3 NL examination, IMGs complained they had no experiences doing MEQ, long case, OSCE, or standardized patient. Some of them used to have OSCE once or twice and still excited during the examination. A participant graduated from the Philippines said: *"In the third year, there was only MCQ examination. Even though I studied clinical skills, there wasn't a skill tests."* (F105)

Another participant graduated from China added: *"I only had experience in OSCE once but did not encountered with standardized patients. There wasn't long case examination, nor MEQ. I'm so excited and afraid. I failed MEQ once. I was shock and so depressed."* (I07)

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Table 4.3 Thematic analysis of examination differences

Open codes	Axial codes	Theme
-Clinical correlation -Direct questions	Clinical correlation	Examination differences
-MCQ -MEQ -Long case -OSCE -Standardized patients -Excited about the examination -Failed examination	Examination experiences	

4.3.1.4 Environment factors and threatening conditions

1) Air pollution

Air pollution was mentioned in both focus groups and individual interviews from different participants. A participant complained: *"There was pollution. I felt like I'm going to die. I had black nostrils. The weather is really cold but the snow was black."* (F201)

2) Disasters

Participants from the Philippines complained about the flood, storms, and earthquakes which both interfered the classes and seemed life threatening. A participant said: *"Tsunami was there that year, near Cebu. I was in Cebu. Even if there was flood, we had to go to classes. Earthquake was different because the building was fallen down. The road was cracked. The airport was out of service. We had 600 aftershocks that night and we had to postpone our examination at that time."* (I03)

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Table 4.4 Thematic analysis of environmental factors

Open codes	Axial codes	Theme
-Conventional lectures -Laboratory sessions -Bedside teaching -No feedback -Lecture in the hospital	Air pollution	Environmental factors
-Flood -Tsunami and monsoon -Earthquakes	Disasters	
-Sell drugs -Gangster	Threatening conditions	

3) Threatening conditions

Besides nature threatening conditions, one participant had a gangster of seniors whom she believed to sell drug. She was afraid of the gangster. She believed that if she had a supportive senior, she would have someone to guide her through her study.

4.3.1.5 Parenting supports

Two participants explained that they chose to go abroad by themselves. They admitted they did not think carefully and had too little information before making decisions. One of them said it would be better if the parents cared and helped them making the decision like the participant's friends. The participant said:

"I believed in the agency who came to counsel in my classroom. The application needed GPA, English proficiency test, and there was also a basic science examination. I thought it was credible. I didn't apply to other universities. My parents allowed me to decide by myself and I had to apply to each university by myself. So I thought it was more convenient to go straight to China. Comparing to my friend whose mother helped her in every way, her mother checked where and when to apply to which university. I think it must be better when making a decision with a helping hand from an adult." (I07)

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4.3.2 Facilitating factors to pass NL

The researcher divided facilitating factors into three parts: early preparation, facilitating factors to pass NL1 and NL2, and facilitating factors to pass NL3.

4.3.2.1 Early preparation

1) Information gathering

Participants were ready to adapt to solve the problems they encountered. Everyone who passed all NL eagerly gathered information needed for NL in the early year. One participant updated with the website of the Medical Council of Thailand every now and then. The participant reviewed the previous year schedules of announcement about NL. The participant said: *"Everyone knew the Medical Council of Thailand's website. I always update. I found the last-year announcements. When the time comes, I will know earlier."* (I06)

2) Collaborative learning

Two participants mentioned that they benefited from knowing Thai medical students during electives sessions. They compared their knowledge, skills, and learning methods. A participant said: *"At first I came in the early 4th year. I could compare what I knew with Thai 4th year students. I realized that we had to study from cases back to disease. I knew different thinking processes we had. They taught us differently from Thai medical students."* (I07)

3) Domestic electives

Two of them learned from electives in Thailand during the early clinical year, almost every semester break. A participant said: *"I had electives in every major wards, psychiatry, and community medicine. It was fun. Having Thai electives can reduce gaps. I knew the work process from electives."* (I07)

Inspired by the electives in Thai hospitals, the participants were more diligent and desperately sought for more sources of knowledge content and examination examples. They ended up with photocopy shops near medical schools and got most of the photocopy notes and books. Having Thai medical student friends was also helpful. They could discuss and compared the curriculum, as well as their abilities in both knowledge and manual skills. A participant said: *"Thai examination is unlike America's USMLE. I found examination guides in photocopy shops. I know Tukkatan*

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near Siriraj, PaDaeng near Chula and a shop near Rama also. Besides the old examinations, I bought Thai textbooks. Siriraj's physio 1, 2, 3 were really good. I understood from just reading the books." (I07)

4) Early plan schedule

All of the pass all NL participants planned their schedule according to NL years beforehand. A participant explained: *"I made a plan years ahead. Sometimes the paper works takes time. I know timing of NL in Thailand so I spread the reading schedules throughout the year."* (I06)

5) Perceived barriers

All the participants in the subgroup had good perception of what to become barriers to the NL at early years. They knew the knowledge and manual skill gaps between IMGs and Thai medical students. A participant stated: *"I concerned the knowledge gap since pre-clinic, but it depends on whether you would do it or not. Someone didn't get ready. Content studied in China was only around 60% of those students in Thailand who have to basically know. We had to do our best. I studied hard since then."* (I06)

6) Learn local language

Four participants tried hard to learn local language and had good opportunity to learn from the patients in the curriculum. A participant said: *"I learnt Tagalog since the 2nd year. In clinical setting, I can understand what the patients said and communicate back to them."* (F104)

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Table 4.5 Thematic analysis of early preparation.

Open Codes	Axial Codes	Theme
-Know information from the website -Know the photocopy shop -Review the website announcements about NL	Information gathering	Early Preparation
Compare knowledge -Compare learning methods	Collaborative learning	
-Spread the reading schedule -Make plans for years ahead	Early plan schedule	
-Come for electives	Domestic electives	
-Know the gap -Know the differences	Perceived barriers	
-Learn extra language courses	Learn local language	

4.3.2.2 Facilitating factors to pass NL1 and NL2

In the subgroup of those who passed all NL, two participants, who graduated from health science bachelor degree, claimed they used their previous knowledge to facilitate in NL1. A participant said: *"I had got previous knowledge, such as anatomy, I knew almost all the terms from the previous degree."* (F104)

A participant gave a full credit to pass NL1 to special classes attended in Thailand during semester breaks. *"I got the scope of NL from special classes. They summarized the scope of the examination for us."* (F103)

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Table 4.6 Thematic analysis of facilitating factors to pass NL1 and NL2

Open Codes	Axial Codes	Theme
-Health science degree -Previous knowledge	Previous knowledge	Facilitating factors to pass NL1 and NL2
-special classes	Special classes	

4.3.2.3 Facilitating factors to pass NL3

They indicated training in domestic internship program helped them to pass NL3. A participant from the Philippines said: *"I give the credit of passing NL3 to the domestic internship program. Because of the training, I could pass the long case examination in NL3"* (F104)

Table 4.7 Thematic analysis of facilitating factors to pass NL3

Open Codes	Axial Codes	Theme
-Learn skills -Learn how to approach patients	Internship program	Facilitating factors to pass NL3

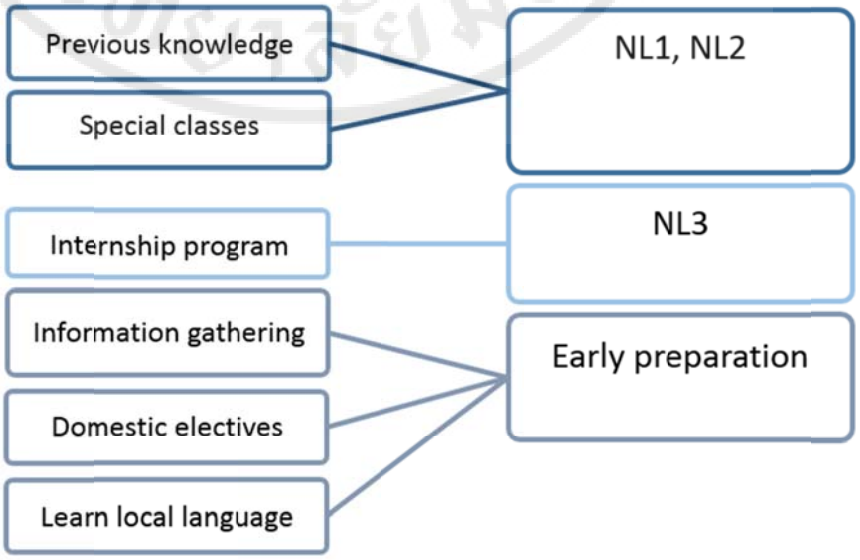

Figure 4.2 Facilitating factors to pass NL

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4.3.3 Reasons to become an IMG

4.3.3.1 Reasons to become a doctor

Six participants had a distinct event which inspired them to choose to study in medicine. A participant said: *"When I was a nurse, I studied guidelines to use in the clinical setting. I had few events that I suggested doctors something and he said 'so you go study medicine instead'. That is the turning point."* (I02)

A participant added: *"I was raised by grandpa and grandma. One day in my teenage, my grandpa fell. I felt I didn't have knowledge to help him. I escorted him to a hospital but finally he died. We were so poor at the time so I had to go to a commercial school and worked for a while before I chased after my dream again."*(I04)

Five participants trusted their family's guidance which encouraged them to become a doctor.

4.3.3.2 Reasons to study abroad

The reason to go studying abroad was most likely from the family, and agency's advice. Five participants could not apply to Thai medical schools causing them with no choice but studying abroad. Three of these participants graduated from health science bachelor degree before applying for international curriculum. A participant did not have enough credit transferred from AFS exchange program.

4.3.4 The strength of IMGs

The theme analyzed from the strength of the IMGs included their becoming mature while living abroad, using foreign language, creating international research network, and gaining more experience.

4.3.4.1 Become mature while living abroad

Living in a foreign country made them stronger. They had to go through many problems, so they became more diligent and adaptive. They improved their decision making skills. Facing disappointments, the participants grew with stronger mind humble heart. They tended to help people more. A participant said: *"I used to be the one who was insulted. If I had a chance to be a doctor, I would never*

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insult anyone. I would try to understand whoever has less knowledge than me and help them." (F101)

Table 4.8 Thematic analysis of becoming mature while living abroad

Open Codes	Axial Codes	Theme
-More diligent and adaptive	More diligent and adaptive	Becoming mature while living abroad
Improve decision making	Improve decision making	

4.3.4.2 Use foreign language

Having local language skills is another strength mentioned from participants who graduated from China. However, a participant from the Philippines complained that he did not consider learning Tagalog as a benefit. A participant said: "*But now practicing medicine here, I still can communicate with Chinese tourist patients in Chinese.*" (I07)

Table 4.9 Thematic analysis of the use of foreign language

Open Codes	Axial Codes	Theme
-Use to examine tourists	Fluent in Chinese	The use of foreign language

4.3.4.3 Create international research network

Some of the participants maintained their connection with foreign friends and benefited for creating international research network with their friends and teachers. A participant mentioned: *"If I want to create a research, it would be easier to do international research because I know my teachers."* (I01)

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Table 4.10 Thematic analysis of creating international research network

Open Codes	Axial Codes	Theme
-keep connection with foreign friends	Connection with friends	Creating international research network
-keep connection with teachers	Connection with teachers	

4.3.4.4 Know different healthcare system

Participants who graduated from China, mentioned about high technology in healthcare system including medical devices and more convenience in medical service system. A participant said: *"The patient uses only an ID card to go to hospital. There isn't OPD card."* (F201)

Table 4.11 Thematic analysis of knowing different healthcare system

Open Codes	Axial Codes	Theme
-Robotic surgery	High technology in medical devices	Knowing different healthcare system
-Patient use only ID card to go to hospital -Digital p medical records	Convenience in medical service	

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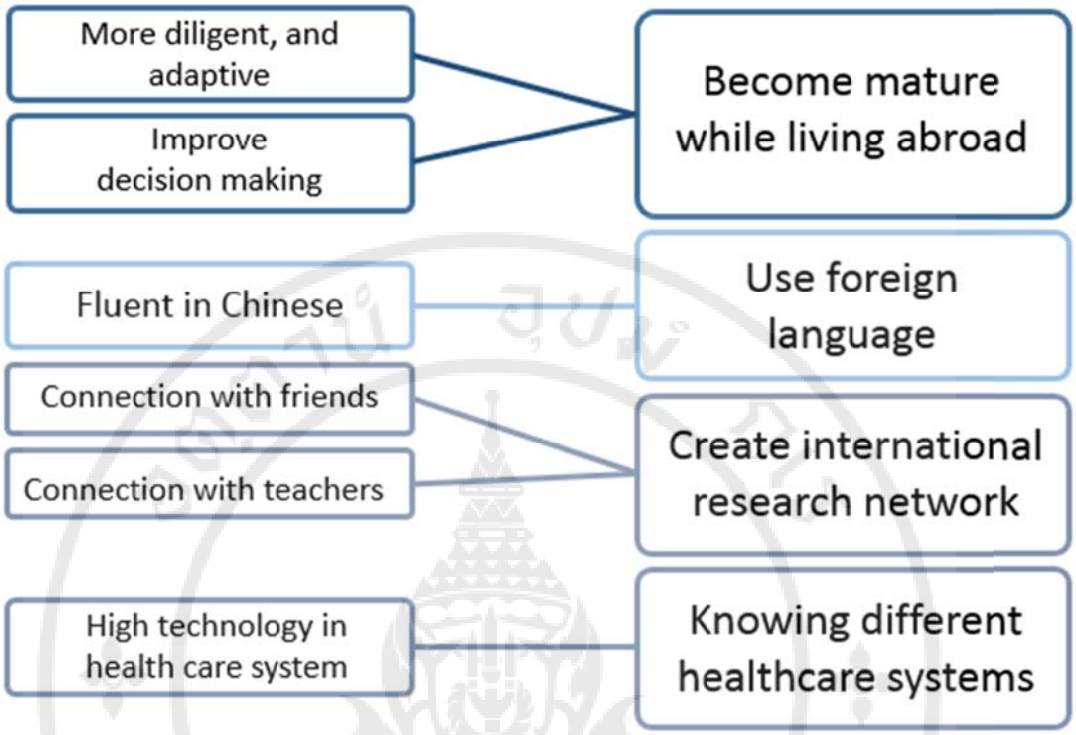

Figure 4.3 The strength of IMGs

4.3.5 Suggestions to pass NL

In this part, the suggestions were categorized according to timeline before applying to international medical programs, during studying abroad, and during postgraduate domestic internship program.

4.3.5.1 Before applying to international medical program, the participants suggested to:

1) Set clear goal of becoming a medical doctor.

2) Choose an agency wisely

A participant mentioned problem about choosing agency. The participant said: *"Before going there, the agency said they would help along the course but when I called for help, they did nothing."* (I01)

3) Study the program and university thoroughly including the climate, environment, culture and curriculum.

4) Check the Medical Council of Thailand's of certified curriculum.

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A participant said: *"Agency advice an uncertified university for me. They said the course would get certification soon. But you know what? I have to do the paperwork and proceeded the certification process myself. The agency just ask whether it was certified yet."* (I05)

4.3.5.2 During studying abroad, the participants suggested to:

1) Early gather all information about the NL.

2) Plan the schedule as early as possible. The schedule should include the paperwork preparation, reading plan, electives in Thailand, and timeline of NL.

3) Survey oneself about strength and weakness.

4) Know Thai medical students early to know and accept the differences between the domestic medical program and the international medical program.

5) Strong enough to take actions to overcome those perceived barriers without giving up.

6) Increase learning opportunities by watching teaching VDO clips from Thai medical schools, taking special classes in Thailand preparing for NL, attending electives in Thailand as early as possible to know the difference between IMGs and Thai medical students, knowing other learning and teaching methods, understanding the process of health care system workflow and inspiring oneself to be more diligent.

4.3.5.3 During postgraduate domestic internship program, the participants suggested to:

1) Cherish every chances of clinical exposure and develop manual skills.

2) Concentrate on the works in the ward and patient care

A participant said: *"During internship program, I had less time to read but taking care of patient surely helps. I learnt many things from ward work and patient care."*

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Four participants suggested to extend the post graduate domestic internship program to 2 years. They complained they wanted to have more experience in psychomotor skills under supervision.

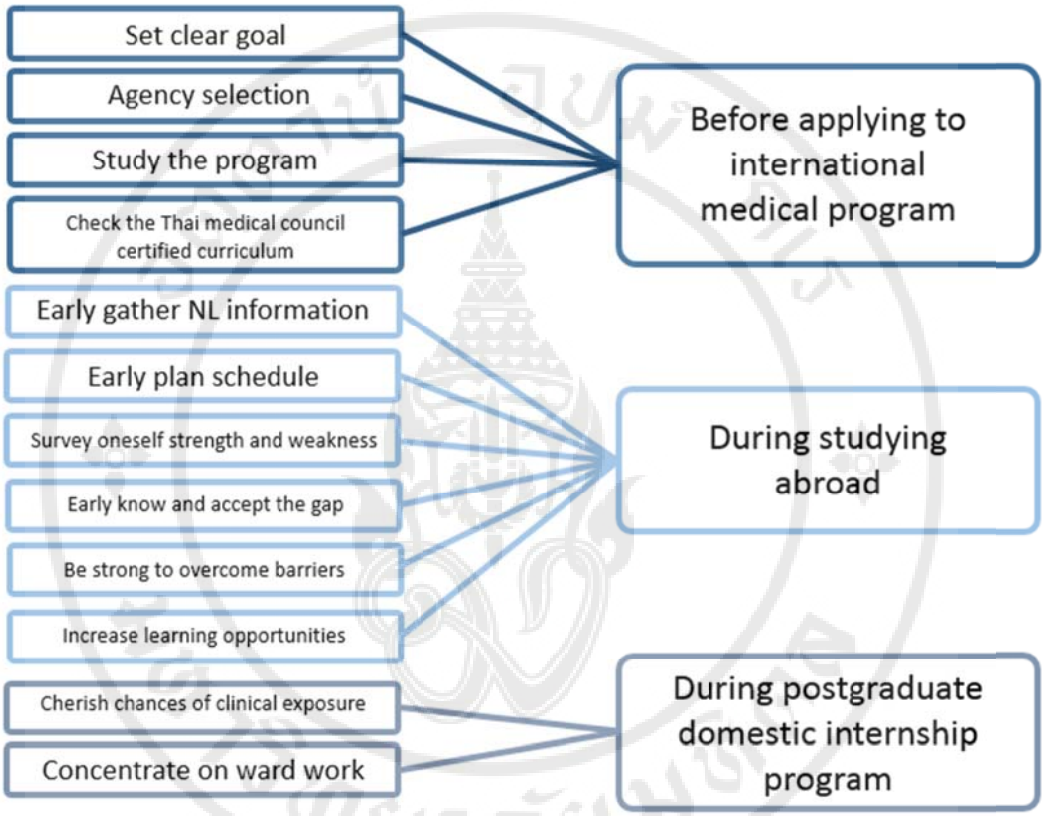

Figure 4.4 Suggestions to pass NL

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CHAPTER V
DISCUSSION

This chapter discusses and summarizes this study in the following section: (a) results and hypothesis, (b) strength, limitations and suggestions (c) implication, and (d) conclusion.

5.1 Results and hypothesis

The study aimed to understand the IMGs' perspective of barriers and facilitating factors affecting passing rate of national license examinations. The study showed that IMGs were almost all showed non-cultural related, training level barriers were the most mention barriers which were the same as hypothesis proposed. Only two participants had the most frequently mentioned barriers to be in the individual level.

Culture-related barriers rarely mentioned in this study. The participants talked about high hierarchy a few times but when they were asked that what barriers could affect national license examinations, they did not mentioned the culture-related barriers unlike a systematic review by Michalski et al. indicated that the IMGs mentioned the difference in culture-related, training level barriers and indicated the patient-centered care seemed to be the problem.[16] The graduated countries in this study only included the Philippines and China which were in South-east Asia and Asia. Even there are different scores in Hofstede's cultural dimension model between China and Thailand but the participants said it did not affect the national license examinations.[29,30,36]

According to the Holton and Baldwin's learning transfer process model, the input (which is learner and team, or individual level factors in conceptual framework were less perceived barriers, less capacity to change, and less preparedness for practice) were mentioned from not pass any NL groups. The process factors

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consisted of learning event or process, organization interventions, and learner or team intervention. The process factors were mentioned from all participants. The participants mostly discussed about the process factors especially the learning event.[27] The output of the process was not evaluated in the study. Facilitating factors identified in this study mostly from the learner and team interventions in the model which were study group, special classes, and domestic electives. The pass-all NL groups also had other facilitating factors in input from learner and team in Time point I. They had good perception of barriers, capacity to change, and they early prepared for the examination.

5.1.1 Comparing results from focus groups and individual interviews

Focus group sessions took a long time (140 and 181 minutes) and the participants were so informative. The focus groups discussed deep into the sensitive areas so the data from the focus groups and individual interview was quite similar. In focus group I, there were participants from China and the Philippines. The participants compared each factor between countries in the discussion leading the discussion to get deeper information. Similar findings were found from Guest et al. and Coenen et al.[39,40] They compare data from focus groups and individual interviews and found focus groups revealed more personal and sensitive data which Coenen et al. suggested that the difference was from peer environment in the focus groups enhance the information given differently than interviewer-researcher relationship.[39,40] In this study, participants were all friends which may made them comfort to discuss about personal issues in the focus groups.

In the focus groups, the participants complaint mainly about teaching methods. Participants, who was individually interviewed, mostly also concerned about teaching methods. All but one participant mentioned the individual level barriers which the participant did not considered as barriers to national license examinations. The participants in focus group 1 did not mentioned the individual level barriers. These may indicate the different of the level of information given differently by different methods, but again it was not much different between focus groups and individual interview.

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5.1.2 Content analysis

Additional content analysis was done to set ranking or prioritization of the barriers which the IMGs mostly concerned. The focus group I concerned about local language used in English curriculum, variation of learning and teaching methods, lack of facilities, and less patient and clinical exposure. The focus group II discussed more about variation of learning and teaching methods, less capacity to change, and local language used in English curriculum. The results were shown in Appendix B.

According to individual interviews, the three most concerned barriers were variation of learning and teaching methods, lack of attention from the teachers and not sufficient facilities. The result was shown in Appendix C.

Overall, the top three most frequently mentioned barriers were variation of learning and teaching methods, local language used in English curriculum, and lack of attention from the teachers. Some of the participants stated that the other two barriers were derived from local language used in English curriculum. Language difficulties found in this study were different from other studies. Previous studies, which IMGs were non-native English speakers came to work in native English-speaking countries, showed barriers in language and communication with patients, native physicians, and other health professionals.[16,20,22] Furthermore, English language fluency affected clinical skill assessment.[18,41,43] But in this study, the mentioned language barriers was the use of local language in the international curriculum they graduated which the communication problem found with teachers, patients and their relatives, affecting the IMGs' learning and clinical exposure.

5.1.3 Comparing result with conceptual framework

Themes from the results were similar to some of the conceptual framework. Some of the barriers in conceptual framework were not mentioned at all which were patient-center care, concept of shared decision making, lack of holistic health care, and lack of understanding of different organizational structure of health-care system. Some of the barriers were mentioned but not significantly affect the national license examinations in this study which were high hierarchy, lack of role model, and role identity. The rest of the proposed barriers in conceptual framework were all mentioned in the focus groups and individual interview sessions.

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Individual level barriers were mentioned in focus group 2 and individual interviews. Less perceived barriers, less capacity to change, and less preparedness for practice were all mentioned. Synthesized by previous study by Kehoe, et al. indicated that these lack of self-awareness affects in reduced motivation and have long-term impact on professional development.[14] These skills may have to be cultivated before letting them manage their lives without guidance. All the participants in this group received little or no parents' guidance in choosing career path. According to a school students survey, 51% of the students had no idea about the course they pursue. Fifty-one percent of them choose profession based on their family inspiration.[44] Therefore, parents' guidance may have an important role in choosing profession.

Non-cultural related, training level barriers were the most mentioned in this study. Variation in learning and teaching methods are the most mentioned barriers. Almost all participants were mainly taught by lectures, some stated once or twice of bedside teaching. In China, although there were plenty of simulations to aid learning and teaching but there was no learning with standardized patient and the participants rarely contact with the real patient. These lack of alternative learning and teaching methods affected postgraduate domestic internship program training and the step 3 national license examinations which used standardized patient in OSCE. The result was similar to a work from Bed-David, et al. They found majority of the foreign medical graduates had no experience with standardized patient which partly cause their performance score in clinical skills part of the examination 2 standard deviation below the mean of United States medical students score.[18] According to Cone of experience, a lecture provided only 5% retention rate after 24 hours.[38] If the curriculum provides more discussion sessions and more real experiences for the students, the retention rate will be much higher (50-90%).[38]

According to difficulties in local language, China medical school have prepared basic Chinese as a subject in the first year of their programs and a medical Chinese subject in the 3rd year. Even the Chinese classes were provided in the curriculum, many participants struggled with using Chinese in daily life and with using medical Chinese to communicate with teachers and patients. Some of them took extra course of Chinese outside the university. Only one participant in individual interview said learning Chinese is not a problem. Standard Chinese proficiency test

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certification is not needed in some programs. Participants in the Philippines had no Tagalog class in the curriculum. Two of them learned Tagalog class outside the university to use with patients. Many of participants depended on their class mate or teacher to translate the content to and from the patients. In the situation, the participants found it hard to develop clinical skills. Correlation between language score and clinical skills scores found in Bed-David, et al. work. They found less clinical skills scores in history, physical examination and communication/interpersonal components.[22.41.42] Although medical terminology in local language course was trained, the IMGs still had problem in the examinations and further in medical practice after licensure.[13] In this study, the use of language was different. The participants found it difficult to communicate with teachers and patients while studying abroad resulting in difficulties in learning there and cause less chance to practice with real patients, but in NL3 they performed in Thai which is their native language. Even though the participants used Thai language in the examination but they needed to practice to take history from the patients and learnt to communicate properly in medical Thai. So language was one of the major barriers while studying abroad but it was less significant in the national license examination especially in step 3. All participants said they had no problems with English language both in communication and examinations.

Facility supports depended on which university the participants attended. Some universities had prepared the facilities for the participants such as English library, back office support, consultants, teaching equipment, and simulations. Some participants said there was not enough teaching equipment both in pre-clinical and clinical years.

Further from the barriers identified in conceptual framework, in this study, examination differences and environmental factors were identified. Participants mentioned the examination in the curriculum they studied abroad had no or less clinical correlation, when Thai national license examinations were clinically related both in basic science and clinical science parts. Besides of MCQ, the participants had no experience of other type of examinations except two participants told that they had OSCE once. Three of five participants experiencing NL3 concerned about examination methods. A participant was excited and afraid of each ringing bell in the OSCE.

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Another participant stated that experience with simulations cannot compare with standardized patient and real patient experience. This issue was linked back to learning and teaching method mentioned above.

A participant mentioned personal security due to drug selling, and gangster of the seniors. One participant, from Huijskins et al, relived his traumatic experiences during training.[13]

5.1.4 Comparing between pass-all NL group and not pass any NL group

It was different when subgrouping into pass-all NL group and not-pass any NL group. The pass-all NL participants mentioned the individual level barriers once or none (frequency 0-1), which was less than the not-pass any NL participants mentioned more about individual level barriers. (Frequency 1-11). Nonetheless, the pass-all NL participants viewed the individual level factors as their facilitating factors.

Table 5.1 Comparing between pass-all NL group and not pass any NL group

Subgroups	Not pass any NL	Pass some NL	Pass all NL
Barriers	-More individual level barriers -Mentioned environmental factors		-Less individual level barriers
Facilitating factors	-Late preparation -Less domestic electives		-Early preparation -Previous knowledge -Domestic electives
Reasons to become and IMG	-Parents and agency guidance		-Having distinct events -Not applying to Thai medical schools

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Previous systemic review of barriers in the IMGs paid attention to culture related barriers.[16,18.23,45] In this study, most of the concerned barriers were non-culture

related, which may be due to different characters. IMGs in this study were Thai, who went to study abroad and came back to practice in the home country, Thailand. The language barrier played a major concern for studying abroad, not directly to the NL. It also affected the capacity in learning and passing national license examinations.

5.1.5 Facilitating factors to pass NL

Facilitating factors were deeply concerned with the individual interviews of those who passed all NL. Even though most barriers were mainly non-cultural training level, the facilitating factors were non-culture individual level.

Participants who passed all NL perceived barriers early, with high adaptable to solve the problems. They studied the program of Thai medical council before their applications. They prepared for the national examinations in early years. Attending electives in Thailand was very important. Participants who passed all NL but do not came back to electives were those in the Philippines program since they were not allowed to do those electives. All of them graduated from the health science bachelor degree before, but one of them had a ten-year work as a nurse. The number of the participants in this study was small, with one of them graduated from the Philippines, who didn't pass any NL, had a major of non-health science bachelor. The comparison between groups of those with or without previous degree in health-science should be recommended for future research.

The capacity to change and preparedness for practice were individual contextual factors in a study by Kehoe et al.[14] The study showed capacity to change leaded to overall work adjustment. They also mentioned previous clinical knowledge and clinical competence difference between IMGs which also needed to be a certain level. Adding to those facilitating factors, IMGs characters differently from native medical graduates in Australia were shown in a study by Laurence et al. which may also be facilitating factors. They concluded that IMGs had two temperament traits, which were novelty seeking and persistence, and two character traits, which were self-directedness and cooperativeness.[46] In this study, the characters from the literature were mentioned by the IMGs in "the strength of the IMGs" part.

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5.1.6 Reasons to become IMGs

Guidance from the family was important in IMGs' perspectives. Five participants followed the family's guidance to study abroad. One participant preferred parents' guidance. Whereas, three participants were guided by the agency which came for study counseling at schools. One agency advised a participant to apply for non-certified curriculum, causing the participant to struggle for years before the curriculum was certified by the Medical Council of Thailand. In the meantime, five participants were not qualified for their applications to domestic medical schools. Nonetheless, four participants passed all the NL.

5.1.7 Suggestions to pass NL

Participants' suggestions were shown in the results. It was suggested that the IMGs should aware of barriers and be ready for early adjustment to solve each obstacle. Early preparation was thus crucial for all IMGs in term of their differences and clinical exposures. In a bid to have their electives in Thailand, it was necessary that the IMGs should understand about knowledge gap and experience in Thai health care system and organizational culture.

In previous studies suggest early orientation session along with professional and personal support from mentors and peers were important.[13,17]

Although the most concerned one were non-cultural related training level barriers, those who perceived these barriers and had high capacity for changes could solve their own obstacles and tended to pass national license examinations.

5.2 Strength, limitations, and suggestions

5.2.1 Strength of the study

5.2.1.1 Reliability and validity

This study used investigator triangulation having three researchers to separately analyze the transcripts, so the researchers' bias was reduced and the analysis of the data became more reliable.[47,48] As well, the data were also

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verified by participants for the validity after the completed study. All participants were satisfied with the reported data and none of them would want to make any changes.

5.2.1.2 Having both thematic and content analysis

The transcripts were analyzed by thematic analysis. In addition, the content analysis was done to compare between the frequency of barriers. The ranking information from content analysis was beneficial and useful for the prioritization of overall problems needed to be solved.

5.2.2 Limitations of the study

5.2.1.1 Study sample

Participants of the study were international medical graduates who passed the domestic internship program at Nopparat Rajathanee Hospital. They were a part of the international medical graduates in Thailand. The samples voluntarily participated in this study graduated from China and the Philippines. There were many other countries with international medical programs according to the environment, curriculum, facilities, learning and teaching methods, and culture.

The maturity of each participant was also varied with their age ranges from 26-39 years and their life experiences. Thus, more sample recruitment was suggested to further analyze the subgroup of ages and life experiences.

5.2.1.2 Data collection

The study information was gathered from IMGs perceptions. However, it was still required for other staffs' perceptions such as pre-clinic and clinical teachers, international academic staffs, IMGs' parents, agency staffs, and Thai teachers in the domestic internship program.

5.2.3 Suggestions for further study

First, more recruitment of IMGs from other hospital's domestic internship programs was advised. Additionally, the variation of international medical programs in countries other than China and the Philippines should be considered especially the programs with various learning and teaching methods, using English as local language, and having students who maintained more experiences in learning from patients in the clinical setting.

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Second, further research study was recommended to obtain data from different stakeholders, not only international medical graduates but also staffs and patients in international medical programs and postgraduate domestic training.

Third, the life experience of IMGs after their medical practice should be recommended for further study. After being certified by national license examinations, the IMGs medical practice needed to be explored whether their similar competence with average domestic medical graduates. Some participants complained that one year of domestic internship program was not sufficient. Thus, there was a question whether the 1-year domestic internship program with three steps of national license examinations was adequate for IMGs confidence in their medical practice and competence, both communication and manual skills, towards long term self-esteem and dignity.

5.3 Implication

The results of this study could be beneficial and useful in many ways for the future international medical students in term of the barriers they might encounter. This was so that the future IMGs should overcome those barriers and facilitate themselves to pass national license examinations.

Domestic internship program administrators and teachers would comprehend the barriers and facilitating factors to improve the domestic internship programs, leading to the enhancement of IMGs' clinical competencies towards the higher passing rate of national license examinations.

Finally, parents and high school teachers could understand the channels and methods for study counseling about the overall barriers and the preparation to solve those problems. Besides, the Medical Council of Thailand should be able to implement the information from this study to guide high school students and parents about studying the international medical programs abroad. The information may trigger for the qualifications of those wishing to apply for the study in Thai medical schools. In this study, almost all of the non-qualified IMGs were able to pass all national license examinations within the year of their interns.

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5.4 Conclusions

The findings in this study indicated that the non-cultural, training level barriers could affect the passing rate of IMGs in national license examinations. The top three most concerned factors included the variation in learning and teaching methods, difficulties in foreign languages, and lack of attention from teachers. Nonetheless, the difference between the groups of passing all NL and not-passing any NL was individual level barriers, such as the perceived barriers and the capacity to change.

Significantly, all participants suggested not to take international medical programs. However, it was advisable for those being in the program to early prepare themselves to work harder and aware of the schedule of paperwork and domestic clinical electives.

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APPENDICES

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APPENDIX A

แนวคำถามที่ใช้ในการสนทนากลุ่ม

เพื่อใช้ในงานวิจัยเรื่อง อุปสรรคต่อการสอบเพื่อรับใบอนุญาตเป็นผู้ประกอบวิชาชีพเวชกรรมและข้อเสนอแนะในทัศนะของบัณฑิตแพทย์นานาชาติ

ประเด็นที่ศึกษา	**คำถามหลัก (ประเด็นซักต่อเนื่อง)**	
1.แรงจูงใจ	1. ตอนเรียนมัธยมปลายอะไรดลใจให้พวกคุณอยากเป็นหมอ (ซัก: สื่อ, ตนเอง เพื่อน ครอบครัว รายได้ ชื่อเสียง)	
2. การเรียนในชั้นพรีคลินิก และคลินิก	1. บรรยากาศการเรียนเป็นอย่างไร (ซัก: วิธีการสอนภาคทฤษฎี และภาคปฏิบัติ) 2. ตอนที่เรียนอยู่ต่างบ้านต่างเมือง ย่อมมีปัญหาเกิดขึ้นได้ เราได้รับความช่วยเหลืออะไรบ้างจากคณะหรือมหาวิทยาลัย (ซัก: ปัญหามีอะไรบ้าง ปัญหาส่วนบุคคล ปัญหาในการเรียนการสอน ปัญหาการประเมินผล ใครเป็นผู้ให้ความช่วยเหลือบ้าง ช่วยเหลืออย่างไร การเข้าถึงความช่วยเหลือเป็นอย่างไร) 3. ปัจจัยที่ส่งผลต่อการเกิดอุปสรรคต่อการเรียนในชั้นพรีคลินิกและชั้นคลินิก คิดว่าปัจจัยไหนสำคัญที่สุด เพราะอะไร (ซัก: หลักสูตร การเรียนการสอน การประเมินผล เพื่อน อาจารย์ ความแตกต่างทางวัฒนธรรมและการปรับตัว) 4. การช่วยเหลือที่ได้รับแตกต่างกันเป็นเพราะว่า	

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ประเด็นที่ศึกษา	คำถามหลัก (ประเด็นซักต่อเนื่อง)	
	บริบททางวัฒนธรรม หรือเป็นเรื่องของอาจารย์แต่ละคน (ซัก: ความแตกต่างทางวัฒนธรรมและการปรับตัว ลักษณะของอาจารย์ ลักษณะของตนเอง ความแตกต่างของหลักสูตร วิธีการสอน วิธีการประเมิน) 5. ผลจากปัญหาระหว่างเรียนในชั้นพรีคลินิก และคลินิกส่งผลต่อการสอบใบอนุญาตวิชาชีพที่เมืองไทยหรือไม่ อย่างไร (ซัก: สัดส่วนการมีผล/ไม่มีผล เพราะอะไรถึงมีผล/ไม่มีผล ถ้าไม่มีผลจะแก้ไขอย่างไร)	
3. ระหว่างการฝึกอบรมแพทย์ฝึกหัด	1. บรรยากาศการเรียนเป็นอย่างไร แตกต่างจากที่ต่างประเทศอย่างไร (ซัก: วิธีการสอนภาคทฤษฎี และภาคปฏิบัติ) 2. ปัญหาเกิดขึ้นระหว่างการฝึกอบรม เราได้รับความช่วยเหลืออะไรบ้างจากหลักสูตร (ซัก: ปัญหามีอะไรบ้าง ปัญหาส่วนบุคคล ปัญหาในการเรียนการสอน ปัญหาการประเมินผล ใครเป็นผู้ให้ความช่วยเหลือบ้าง ช่วยเหลืออย่างไร การเข้าถึงความช่วยเหลือเป็นอย่างไร) 3. ปัจจัยที่ส่งผลต่อการเกิดอุปสรรคต่อการฝึกอบรมแพทย์ฝึกหัด คิดว่าปัจจัยไหนสำคัญที่สุด เพราะอะไร (ซัก: หลักสูตร การเรียนการสอน การประเมินผล เพื่อน อาจารย์ ความแตกต่างทางวัฒนธรรมและการปรับตัว) 4. ความแตกต่างของระบบสาธารณสุขของสองประเทศเป็นอย่างไร	

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ประเด็นที่ศึกษา	คำถามหลัก (ประเด็นซักต่อเนื่อง)	
	(ซัก: การเข้าถึงระบบสาธารณสุข บทบาทหน้าที่แพทย์ บทบาทในองค์กรและชุมชน)	
4. การสอบเพื่อรับใบอนุญาตเป็นผู้ประกอบวิชาชีพเวชกรรม	1. มีความคิดเห็นอย่างไรเกี่ยวกับข้อสอบและการจัดสอบ (ซัก: เนื้อหาข้อสอบตรงกับที่เรียนมา รูปแบบการเรียนกับรูปแบบการสอบ) 2. เริ่มต้นเตรียมตัวสอบเมื่อไหร่ เตรียมตัวได้อย่างที่ตั้งใจหรือไม่ (ซัก: อะไรที่ทำให้เริ่มเตรียมตัวสอบ เตรียมอะไรบ้าง เตรียมตัวได้อย่างที่คาดหวังหรือไม่ ถ้าไม่ได้ เป็นเพราะอะไร) 3. การเลือกเรียนหลักสูตรแพทย์ที่ต่างประเทศมีผลกับการสอบอย่างไร (ซัก: ความคุ้นเคยกับวิธีสอบ วิธีการเรียน) 4. คุณคิดว่าจุดแข็งของการเป็นบัณฑิตแพทย์นานาชาติคืออะไรบ้าง 5. ขอคำแนะนำที่จะช่วยในเรื่องการเตรียมตัวสอบเพื่อรับใบอนุญาตเป็นผู้ประกอบวิชาชีพเวชกรรมด้วยค่ะ	

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แนวคำถามที่ใช้ในการสัมภาษณ์รายบุคคล

เพื่อใช้ในงานวิจัยเรื่อง อุปสรรคต่อการสอบเพื่อรับใบอนุญาตเป็นผู้ประกอบวิชาชีพเวชกรรมและข้อเสนอแนะในทัศนะของบัณฑิตแพทย์นานาชาติ

ประเด็นที่ศึกษา	คำถามหลัก (ประเด็นซักต่อเนื่อง)	
1. พื้นฐานครอบครัว	1. ช่วยแนะนำตัวเองและครอบครัวหน่อยค่ะ (ซัก: สมาชิกในครอบครัว) 2. การเลี้ยงดูในครอบครัวเป็นอย่างไร มีผลต่อการเลือกอาชีพ ที่เรียน การใช้ชีวิตอย่างไร (ซัก: ความสัมพันธ์ลำดับชั้นในครอบครัว บทบาทที่ต่างกันของเพศ ความเชื่อในครอบครัว การแสดงความคิดเห็น การแสดงออกในครอบครัว) 3. ครอบครัวมีความเห็นต่ออนาคตคุณอย่างไร (ซัก: บทบาทในสังคม หน้าที่การงาน การใช้ชีวิต)	
2. แรงจูงใจ	1. ทำไมถึงเลือกมาเรียนแพทย์ (ซัก: ความประทับใจ สื่อ ตนเอง เพื่อน ครอบครัว รายได้ ชื่อเสียง)	
3. การเรียนในชั้นพรีคลินิก และคลินิก	1. บรรยากาศการเรียนเป็นอย่างไร เหมือนหรือต่างจากที่คาดหวังอย่างไร (ซัก: วิธีการสอนภาคทฤษฎี และภาคปฏิบัติ การได้รับความสนใจจากอาจารย์ การมี role model เพื่อน สิ่งอำนวยความสะดวก) 2. ตอนเรียนที่ต่างประเทศต้องมีการปรับตัวอย่างไรบ้าง อะไรที่คิดว่าเป็นปัญหาบ้าง ได้รับความช่วยเหลือจากที่ใดบ้าง (ซัก: ปัญหามีอะไรบ้าง ปัญหาส่วนบุคคล ปัญหาในการเรียนการสอน ปัญหาการประเมินผล ปัญหาด้านวัฒนธรรม ภาษา ระบบและวัฒนธรรมในองค์กร ความไว้วางใจจากผู้ป่วยและญาติ ใครเป็นผู้ให้ความช่วยเหลือบ้าง ช่วยเหลืออย่างไร การเข้าถึงความ	

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ประเด็นที่ศึกษา	คำถามหลัก (ประเด็นซักต่อเนื่อง)	
	ช่วยเหลือเป็นอย่างไร) 3. ปัจจัยที่ส่งผลต่อการเกิดอุปสรรคต่อการเรียนในชั้นพรีคลินิกและชั้นคลินิก คิดว่าปัจจัยไหนสำคัญที่สุด เพราะอะไร (ซัก: หลักสูตร การเรียนการสอน การประเมินผล เพื่อน อาจารย์ ความแตกต่างทางวัฒนธรรมและการปรับตัว) 4. เวลาที่เจอกับปัญหามีวิธีการจัดการอย่างไร (ซัก: จัดการด้วยตัวเอง ครอบครัว เพื่อน อาจารย์ที่ปรึกษา เมื่อไหร่ที่ขอความช่วยเหลือ ได้รับการตอบสนองอย่างไร) 5. การช่วยเหลือที่ได้รับแตกต่างกันเป็นเพราะว่าบริบททางวัฒนธรรม หรือเป็นเรื่องของอาจารย์แต่ละคน (ซัก: ความแตกต่างทางวัฒนธรรมและการปรับตัว ลักษณะของอาจารย์ ลักษณะของตนเอง ความแตกต่างของหลักสูตร วิธีการสอน วิธีการประเมิน) 6. ผลจากปัญหาระหว่างเรียนในชั้นพรีคลินิก และคลินิกส่งผลต่อการสอบใบอนุญาตวิชาชีพที่เมืองไทยหรือไม่ อย่างไร (ซัก: สัดส่วนการมีผล/ไม่มีผล เพราะอะไรถึงมีผล/ไม่มีผล ถ้าไม่มีผลจะแก้ไขอย่างไร)	
4. ระหว่างการฝึกอบรมแพทย์ฝึกหัด	1. บรรยากาศการเรียนเป็นอย่างไร แตกต่างจากที่ต่างประเทศอย่างไร (ซัก: วิธีการสอนภาคทฤษฎี และภาคปฏิบัติ การได้รับ	

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ประเด็นที่ศึกษา	คำถามหลัก (ประเด็นซักต่อเนื่อง)	
	ความสนใจจากอาจารย์ การมี role model เพื่อน สิ่งอำนวยความสะดวก) 2. ปัญหาเกิดขึ้นระหว่างการฝึกอบรมมีอะไรบ้าง แตกต่างจากตอนเรียนที่ต่างประเทศหรือไม่ ปัญหาอะไรที่สำคัญที่สุด เราได้รับความช่วยเหลืออะไรบ้างจากหลักสูตร (ซัก: ปัญหามีอะไรบ้าง ปัญหาส่วนบุคคล ปัญหาครอบครัว ปัญหาในการเรียนการสอน ปัญหาการประเมินผล ใครเป็นผู้ให้ความช่วยเหลือบ้าง ช่วยเหลืออย่างไร การเข้าถึงความช่วยเหลือเป็นอย่างไร) 3. อยากให้ช่วยแนะนำรุ่นน้องที่เรียนที่ต่างประเทศเกี่ยวกับการฝึกอบรมแพทย์ฝึกหัดให้ประสบความสำเร็จ (ซัก: การเตรียมตัวก่อนมาเป็นแพทย์ฝึกหัด การปฏิบัติตัวระหว่างเป็นแพทย์ฝึกหัด)	
5. การสอบเพื่อรับใบอนุญาตเป็นผู้ประกอบวิชาชีพเวชกรรม	1. อยากให้เสนอแนะเกี่ยวกับการจัดสอบและข้อสอบ (ซัก: เนื้อหาข้อสอบตรงกับที่เรียนมา รูปแบบการเรียนกับรูปแบบการสอบ การจัดการเกี่ยวกับการสอบ สถานที่สอบ การเดินทาง ระยะเวลา ค่าใช้จ่าย) 2. คุณได้เตรียมตัวอย่างไรเพื่อสอบใบประกอบวิชาชีพ (ซัก: เริ่มเตรียมตัวสอบเมื่อไร เตรียมอะไรบ้าง เตรียมตัวได้อย่างที่คาดหวังหรือไม่ ถ้าไม่ได้ เป็นเพราะอะไร) 3. การเลือกเรียนหลักสูตรแพทย์ที่ต่างประเทศมีผลกับการสอบอย่างไร (ซัก: ความคุ้นเคยกับวิธีสอบ วิธีการเรียน อุปสรรค	

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ประเด็นที่ศึกษา	คำถามหลัก (ประเด็นซักต่อเนื่อง)	
	การเดินทาง การลาหยุด ค่าใช้จ่าย) 4. คุณคิดว่าจุดแข็งของการเป็นบัณฑิตแพทย์นานาชาติคืออะไรบ้าง 5. ขอคำแนะนำที่จะช่วยในเรื่องการเตรียมตัวสอบเพื่อรับใบอนุญาตเป็นผู้ประกอบวิชาชีพเวชกรรมด้วยค่ะ	

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APPENDIX B

Frequency of barriers mentioned in each focus group.

No.	Factors	Frequency (Group-participant)							
		1-1	1-2	1-3	1-4	1-5	2-1	2-2	2-3
Individual level, non-culture related									
1	Less capacity to change	-	-	-	-	-	4	2	1
2	Lack of preparedness for practice	-	-	-	-	-	3	-	-
3	No perceived barriers	-	-	-	-	-	1	-	-
4	Lack of role identity	-	-	-	-	-	1	-	-
Training level, culture related									
5	Patient-center care	-	-	-	-	-	-	-	-
6	Concept of shared decision making	-	-	-	-	-	-	-	-
7	Hierarchy	-	-	-	1	-	2	1	1
Training level, non-culture related									
8	Variation of learning and teaching methods	1	1	2	1	1	3	2	5
9	Lack of attention from the teachers	-	-	-	2	1	1	3	-
10	Lack of role model	-	-	-	-	-	-	-	-
11	Non-sufficient organization supports	-	1	-	1	1	2	1	1
12	Lack of holistic health care	-	-	-	-	-	-	-	-

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No.	Factors	Frequency (Group-participant)							
		1-1	1-2	1-3	1-4	1-5	2-1	2-2	2-3
13	Difficulties in foreign languages	6	3	2	2	1	2	3	1
14	Lack of understanding of different organizational structure of health-care system	-	-	-	1	-	-	-	-
Additional factors									
15	Lack of family psychological support	-	-	-	-	-	-	-	-
16	Disaster and major pollution	-	-	-	-	-	1	-	-
17	Examination guidelines	-	-	1	-	-	-	1	-
18	Examination methods	-	-	-	-	-	-	-	-
19	Threatening environment	-	-	-	-	-	-	2	-
20	Patient and clinical exposure	1	1	1	-	-	1	2	1
21	Racist	-	-	-	-	-	-	-	-

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Frequency of barriers mentioned in each individual interview.

No.	Factors	Frequency (Participant)						
		1	2	3	4	5	6	7
Individual level, non-culture related								
1	Less capacity to change	6	5	-	2	1	-	1
2	Lack of preparedness for practice	2	3	1	1	2	-	-
3	No perceived barriers	3	1	1	3	6	-	1
4	Lack of role identity	-	-	-	-	-	-	-
Training level, culture related								
5	Patient-center care	-	-	-	-	-	-	-
6	Concept of shared decision making	-	-	-	-	-	-	-
7	Hierarchy	-	-	-	-	-	-	-
Training level, non-culture related								
8	Variation of learning and teaching methods	5	8	5	1	6	4	4
9	Lack of attention from the teachers	2	5	2	2	3	3	1
10	Lack of role model	-	1	-	-	-	-	-
11	Non-sufficient organization supports	1	4	2	3	4	3	-
12	Lack of holistic health care	-	-	-	-	-	-	-
13	Difficulties in foreign languages	2	4	1	2	2	2	-
14	Lack of understanding of different organizational structure of health-care system	1	-	-	-	-	-	1

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No.	Factors	Frequency (participant)						
		1	2	3	4	5	6	7
Additional factors								
15	Lack of family psychological support	3	-	-	-	-	-	-
16	Disaster and major pollution	1	-	2	1	-	-	-
17	Examination guidelines	-	1	-	-	-	2	1
18	Examination methods	-	1	-	-	-	2	2
19	Threatening environment	-	-	-	-	-	-	-
20	Patient and clinical exposure	-	-	-	-	2	1	1
21	Racist	-	-	-	-	-	1	1

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APPENDIX C

Most frequent factors in focus groups.

No.	Factors	Frequency	Example
Focus group 1			
1	Difficulties in foreign languages	14	*"The teachers use English and Tagalog words after words…"* *"Many of the teachers cannot communicate in English. They just read the slides in class but cannot answer after-class questions."* *"In the hospital, everything is written or recording in Chinese, not even an alphabet in English"* *"I have tried learning Tagalog since 2nd year but it still cannot be useful"* *"If the patient heard me talking in English, they do not let me do procedures."*
2	Variation of learning and teaching methods	6	*"In preclinic years, we had only lectures and labs."* *"We had only lectures in the 4th and 5th year, and following the teacher to learn from his patient in the 6th year."* *"In 4th year, we acted like Thai externs. The teacher only taught us*

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No.	Factors	Frequency	Example
			once then we have to do everything ourselves without guidance."
3	Lack of attention from the teachers	3	*"The teachers rarely pay attention to us, the came to read the slides. The advisor just make sure that we don't break the rules and laws"*
3	Non-sufficient organization supports	3	*"Comparing to Thais, lab equipment here in the Philippines is not sufficient. In my high school, a decade ago, is cleaner and better in quality"*
3	Patient and clinical exposure	3	*"…Touching the patient is a rare opportunity here…"*
Focus group 2			
1	Variation of learning and teaching methods	10	*"Organic Chem teacher came in to read the slides for us"* *"A Bangladesh teacher told me that it's a Chinese rule to tell the examination to student, they sell the exam in the university"* *"They teach us to pass their exam, not to know the content of the subject"*
2	Less capacity to change	7	*"I came back to Thailand for special classes but didn't read furthermore."* *"I read the NL examination but don't get it. I know what they ask but don't know how to find the right answer."*

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No.	Factors	Frequency	Example
3	Difficulties in foreign languages	6	*"Some teachers cannot speak English so they assigned residents to teach us instead. The resident had difficulty in speaking English so I try to communicate in Chinese instead."* *"We had to fill in the logbook and had to get the teacher's feedback. Because the teacher didn't want to write in English so I told him write in Chinese then I ask my Chinese friend to translate to me afterward."*

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Most frequent factors in individual interviews.

No.	Factors	Frequency	Example
Individual interviews			
1	Variation of learning and teaching methods	33	*"In clinical year, teacher let me do the procedure right away, without demonstrations or feedback after the procedure."* *"I don't know about symptomatology before came back to Thailand."* *"Learning there was like learn from a blank paper. Doing case presentation, and case report made me realize how to use the knowledge with patient care."*
2	Lack of attention from the teachers	18	*"Even though the teacher can speak English but he explain to us in local language. I tried to ask, but he ignored me."*
3	Non-sufficient organizational supports	17	*"In clinical year, I have to buy personal neurologic percussion hamper, oxygen saturation monitor, and ophthalmoscope."* *"The advisor listened to us but he was not helpful. He told me to use Chinese with the teachers but hey! We're in English program!"* *"Toilet is a problem. There are lack of water. The classroom is not enough too."*

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APPENDIX D

CERTIFICATE OF ETHIC APPROVAL SIRIRAJ HOSPITAL

ภาควิชาวิสัญญีวิทยา
รับที่ 3152
วันที่ 11 ก.ย. 2561
เวลา 13.20 น.

หน่วยจริยธรรมการวิจัยในคน
คณะแพทยศาสตร์ศิริราชพยาบาล มหาวิทยาลัยมหิดล
อาคารเฉลิมพระเกียรติ ๘๐ พรรษา ๕ ธันวาคม ๒๕๕๐
ชั้น 2 โทร. 0 2419 2667-72 โทรสาร. 0 2411 0162

ที่ ศร 0517.071/EC **03076**
วันที่ 10 ก.ย. 2561
เรื่อง ขอส่งเอกสารรับรองและเอกสารที่เกี่ยวข้องสำหรับโครงการวิจัย
เรียน ผศ. พญ.กษณา รักษมณี
สิ่งที่ส่งมาด้วย : แนวทางการปฏิบัติ 11 ข้อ สำหรับ โครงการวิจัยที่ได้รับการรับรองแล้ว

ในนามของคณะกรรมการจริยธรรมการวิจัยในคน ขอแสดงความยินดีที่โครงการวิจัยของท่าน เรื่อง "อุปสรรคต่อการสอบเพื่อรับใบอนุญาตเป็นผู้ประกอบวิชาชีพเวชกรรมและข้อเสนอแนะในทัศนะของบัณฑิตแพทย์นานาชาติ" รหัสโครงการ 315/2561(EC3) ได้รับการรับรอง จากคณะกรรมการจริยธรรมการวิจัยในคนแล้ว เมื่อวันที่ 29 สิงหาคม 2561 จึงขอส่งเอกสารรับรอง (Certificate of Approval หรือ COA) และเอกสารแนบอื่นๆ ดังเอกสารแนบ มายังท่าน

พร้อมกันนี้คณะกรรมการจริยธรรมการวิจัยในคนได้ส่งแนวทางการปฏิบัติสำหรับโครงการวิจัยที่ได้รับการรับรองแล้ว 11 ข้อ ซึ่งหัวหน้าโครงการวิจัยจะต้องปฏิบัติและดูแลให้ผู้วิจัยร่วมหรือผู้ช่วยผู้วิจัยทุกท่านปฏิบัติตามด้วย ตามเอกสารที่ส่งมาด้วย (สีชมพู)

คณะกรรมการจริยธรรมการวิจัยในคน ขออำนวยพรให้ท่านประสบความสำเร็จในการดำเนินการวิจัยสมความมุ่งหมายเพื่อความก้าวหน้าทางวิชาการ และเพื่อประโยชน์ของมนุษยชาติต่อไป

ขอแสดงความนับถือ

(ศาสตราจารย์ นายแพทย์ชัยรัตน์ ฉายากุล)
ประธานคณะกรรมการจริยธรรมการวิจัยในคน

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รับเอกพิมพ์
ดูถูกทรง/ ตรวจทาน

2 WANGLANG Rd. BANGKOKNOI
BANGKOK 10700

Tel. +66 2419 2667-72
Fax. +66 2411 0162

Siriraj Institutional Review Board

Certificate of Approval

COA no. Si 540/2018

Protocol Title(English) : Barriers in national license examination and suggestion from international medical graduates' perspective

Protocol Title(Thai) : อุปสรรคต่อการสอบเพื่อรับใบอนุญาตเป็นผู้ประกอบวิชาชีพเวชกรรมและข้อเสนอแนะในทัศนะของบัณฑิตแพทย์นานาชาติ

Protocol number : 315/2561(EC3)

Principal Investigator/Affiliation: Assist. Prof.Kasana Raksamani, M.D. / Department of Anesthesiology Faculty of Medicine Siriraj Hospital, Mahidol University

Research site : Faculty of Medicine Siriraj Hospital

Duration of research : 4 months

Approval date : August 29, 2018
Expired date : August 28, 2019

This is to certify that Siriraj Institutional Review Board is in full compliance with international guidelines for human research protection such as the Declaration of Helsinki, the Belmont Report, CIOMS Guidelines and the International Conference on Harmonization in Good Clinical Practice (ICH-GCP)

(Prof. Chairat Shayakul, M.D.)
Chairperson

- 7 SEP 2018
date

(Prof.Dr. Prasit Watanapa, M.D., Ph.D.)
Dean of Faculty of Medicine Siriraj Hospital

10 SEP 2018
date

Approval includes :

1. SIRB submission form
2. Proposal
3. Participant information sheet
4. Informed consent form
5. Questionnaire script
6. Curriculum vitae

หน่วยพิมพ์โรงพยาบาลศิริราช 2341/3,000 แผ่น/ต.ค.57/M/2667/Mat.10023252/306

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All Siriraj Institutional Review Board (SIRB) Approved Investigators must comply with the following:

1. Conduct the research as approved by the SIRB and will not make any changes in the research without prior SIRB review and approval, except when necessary to eliminate apparent immediate hazards to participants.
2. Use only the forms bearing the 'SIRB APPROVED STAMP' in the research.
3. Conduct the informed consent process without coercion or undue influence, and give sufficient opportunity to consider participation. One copy of the consent and/or assent form must be given to the subject after it is signed.
4. Promptly report to the SIRB of any new information that may affect the safety and well-being of the subjects.
5. Report to the SIRB all serious adverse events, unanticipated problems, protocol deviation and/or violation in accordance with the SIRB policy and operating procedures.
6. Provide the progress report to the SIRB as a Continuing Review 30 days prior to the COA expiration for at least once a year from the approval date unless otherwise indicated. The Continuing Review must be used to renew approval prior to the expired date.
7. Provide the Final Report as a close-out within 30 days after the research is complete.

Non-compliance may result in the suspension or termination of the study.

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APPENDIX E

INFORMED CONSENT

เอกสารหมายเลข 3ข

หนังสือแสดงเจตนายินยอมเข้าร่วมการวิจัย

(Consent Form)

วันที่..... เดือน..... พ.ศ.....

ข้าพเจ้า..... อายุ.....ปี

อาศัยอยู่บ้านเลขที่.....ถนน..... แขวง/ตำบล.....

เขต/อำเภอ.....จังหวัด.....รหัสไปรษณีย์.....

โทรศัพท์ .....

ขอแสดงเจตนายินยอมเข้าร่วมโครงการวิจัย เรื่อง อุปสรรคต่อการสอบเพื่อรับใบอนุญาตเป็นผู้ประกอบวิชาชีพเวชกรรมและข้อเสนอแนะในทัศนะของบัณฑิตแพทย์นานาชาติฯ

โดยข้าพเจ้าได้รับทราบรายละเอียดเกี่ยวกับที่มาและจุดมุ่งหมายในการทำวิจัย รายละเอียดขั้นตอนต่างๆ ที่จะต้องปฏิบัติหรือได้รับการปฏิบัติ ประโยชน์ที่คาดว่าจะได้รับของการวิจัย และความเสี่ยงที่อาจจะเกิดขึ้นจากการเข้าร่วมการวิจัย รวมทั้งแนวทางป้องกันและแก้ไขหากเกิดอันตรายขึ้น ค่าใช้จ่ายที่ข้าพเจ้าจะต้องรับผิดชอบจ่ายเอง โดยได้อ่านข้อความที่มีรายละเอียดอยู่ในเอกสารชี้แจงผู้เข้าร่วมการวิจัยโดยตลอด อีกทั้งยังได้รับคำอธิบายและตอบข้อสงสัยจากหัวหน้าโครงการวิจัยเป็นที่เรียบร้อยแล้ว

ข้าพเจ้าจึงสมัครใจเข้าร่วมในโครงการวิจัยนี้โดยยินยอมเข้าร่วมในการ

☐ การสนทนากลุ่ม

☐ การสัมภาษณ์รายบุคคล

☐ การสนทนากลุ่มและสัมภาษณ์รายบุคคล

หากข้าพเจ้ามีข้อข้องใจเกี่ยวกับขั้นตอนของการวิจัย หรือหากเกิดผลข้างเคียงที่ไม่พึงประสงค์จากการวิจัยขึ้นกับข้าพเจ้า ข้าพเจ้าจะสามารถติดต่อกับ ผศ.พญ.กษณา รักษมณี โรงพยาบาลศิริราช โทรศัพท์ 024197990, 0869076862 พญ.ชนันยา ห่อเกียรติ โรงพยาบาลนพรัตนราชธานี โทรศัพท์ 0898512663, 025174261

หากข้าพเจ้าได้รับการปฏิบัติไม่ตรงตามที่ระบุไว้ในเอกสารชี้แจงผู้เข้าร่วมการวิจัย ต้องการปรึกษาปัญหาข้อกังวล มีคำถามหรือต้องการข้อมูลเพิ่มเติมเกี่ยวกับการวิจัย ข้าพเจ้าสามารถติดต่อกับประธานคณะกรรมการจริยธรรมการวิจัยในคนได้ที่ สำนักงานคณะกรรมการจริยธรรมการวิจัยในคน อาคารเฉลิมพระเกียรติ ๘๐ พรรษา ๕ ธันวาคม ๒๕๕๐ ชั้น 2 โทร.0 2419 2667-72 โทรสาร 0 2411 0162

ข้าพเจ้าได้ทราบถึงสิทธิ์ที่ข้าพเจ้าจะได้รับข้อมูลเพิ่มเติมทั้งทางด้านประโยชน์และโทษจากการเข้าร่วมการวิจัย และสามารถถอนตัวหรืองดเข้าร่วมการวิจัยได้ทุกเมื่อโดยไม่ต้องแจ้งล่วงหน้าหรือระบุเหตุผล โดยจะไม่มี

รับรองโดย
คณะกรรมการจริยธรรมการวิจัยในคน
คณะแพทยศาสตร์ศิริราชพยาบาล
รหัสโครงการ 315/2561 (EC3)
COA No. SI 540/2018
วันที่รับรอง 29 สค 2561

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ผลกระทบต่อการบริการและการรักษาพยาบาลที่ข้าพเจ้าจะได้รับต่อไปในอนาคต และยินยอมให้ผู้วิจัยใช้ข้อมูลส่วนตัวของข้าพเจ้าที่ได้รับจากการวิจัย แต่จะไม่เผยแพร่ต่อสาธารณะเป็นรายบุคคล โดยจะนำเสนอเป็นข้อมูลโดยรวมจากการวิจัยเท่านั้น

ข้าพเจ้าได้เข้าใจข้อความในเอกสารชี้แจงผู้เข้าร่วมการวิจัย และหนังสือแสดงเจตนายินยอมนี้โดยตลอดแล้ว จึงลงลายมือชื่อไว้

ลงชื่อ..... ผู้ร่วมวิจัย/อาสาสมัครหรือผู้แทนโดยชอบธรรม/วันที่.....
(.....)

ลงชื่อ.....ผู้ให้ข้อมูลและขอความยินยอม/หัวหน้าโครงการวิจัย/วันที่.....
(.....)

ในกรณีผู้ร่วมวิจัย/อาสาสมัคร อ่านหนังสือไม่ออก มีพยานซึ่งไม่มีส่วนได้เสียอยู่ด้วยตลอดระยะเวลาที่มีการให้ข้อมูลและผู้ร่วมวิจัย/อาสาสมัครหรือผู้แทนโดยชอบธรรมให้ความยินยอมเข้าร่วมการวิจัย พยานขอยืนยันว่าข้อมูลในหนังสือแสดงเจตนายินยอมหรือข้อมูลที่ได้รับและเอกสารอื่นได้รับการอธิบายอย่างถูกต้อง และผู้ร่วมวิจัย/อาสาสมัครหรือผู้แทนโดยชอบธรรมแสดงว่าเข้าใจรายละเอียดต่างๆ พร้อมทั้งให้ความยินยอมโดยสมัครใจ จึงได้ลงลายมือชื่อไว้เป็นพยาน

ลงชื่อ.....พยาน/วันที่.....
(.....)

รับรองโดย
คณะกรรมการจริยธรรมการวิจัยในคน
คณะแพทยศาสตร์ศิริราชพยาบาล
รหัสโครงการ 315/2561 (EC3)
COA No. SI 540/2018
วันที่รับรอง 29 ส.ค. 2561

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APPENDIX F
PARTICIPANTS INFORMATION SHEET

เอกสารหมายเลข 3ก

เอกสารชี้แจงผู้เข้าร่วมการวิจัย/อาสาสมัคร

(Participant Information Sheet)

ในเอกสารนี้อาจมีข้อความที่ท่านอ่านแล้วยังไม่เข้าใจ โปรดสอบถามหัวหน้าโครงการวิจัยหรือผู้แทนให้ช่วยอธิบายจนกว่าจะเข้าใจดี ท่านอาจจะขอเอกสารนี้กลับไปอ่านที่บ้านเพื่อปรึกษา หารือกับญาติพี่น้อง เพื่อนสนิท แพทย์ประจำตัวของท่าน หรือแพทย์ท่านอื่น เพื่อช่วยในการตัดสินใจเข้าร่วมการวิจัย

ชื่อโครงการวิจัย อุปสรรคต่อการสอบเพื่อรับใบอนุญาตเป็นผู้ประกอบวิชาชีพเวชกรรมและข้อเสนอแนะในทัศนะของบัณฑิตแพทย์นานาชาติ

ชื่อหัวหน้าโครงการวิจัย ผศ.พญ. กษณา รักษมณี

สถานที่วิจัย โรงพยาบาลนพรัตนราชธานี

สถานที่ทำงานและหมายเลขโทรศัพท์ของหัวหน้าโครงการวิจัยที่ติดต่อได้ทั้งในและนอกเวลาราชการ

โรงพยาบาลศิริราช โทรศัพท์ 024197990, 0869076862

ผู้สนับสนุนทุนวิจัย ไม่มี

การมีส่วนได้ส่วนเสียกับแหล่งทุน ไม่มี

ระยะเวลาในการวิจัย 4 เดือน

ที่มาของโครงการวิจัย

ทางเลือกหนึ่งของผู้ที่ต้องการเรียนต่อแพทยศาสตร์บัณฑิตคือไปเรียนแพทย์ในหลักสูตรนานาชาติของโรงเรียนแพทย์ในต่างประเทศ ในปี พ.ศ. 2560 โรงเรียนแพทย์ที่ได้รับการรับรองจากแพทยสภานั้นมี 212 แห่งในหลายประเทศ

ในประเทศไทยบัณฑิตแพทย์นานาชาติที่สอบผ่านเพื่อรับใบอนุญาตประกอบวิชาชีพเวชกรรมมีจำนวนราว 2% ของแพทย์จบใหม่ที่สอบผ่านทั่วประเทศ เมื่อพิจารณาเฉพาะบัณฑิตแพทย์นานาชาติอัตราการสอบผ่านอยู่ที่ 10.7% ซึ่งต่ำมากเมื่อเทียบกับบัณฑิตแพทย์ในประเทศ เป็นความสูญเสียทางการศึกษาเป็นจำนวนมาก หากสามารถลดอุปสรรคและเกื้อหนุนให้อัตราการสอบผ่านเพิ่มขึ้นได้มากกว่านี้จะทำให้มีจำนวนแพทย์ที่ได้รับใบอนุญาตประกอบวิชาชีพเวชกรรมมากขึ้นเพื่อรองรับภาระงานในระบบสาธารณสุขได้เพิ่มขึ้น

ในการทบทวนวรรณกรรมและงานวิจัยพบว่าอุปสรรคต่อการสอบและทำงานของบัณฑิตแพทย์นานาชาติที่ได้ย้ายถิ่นฐานการทำงานไปยังประเทศปลายทางที่มีเศรษฐานะดีกว่านั้นมีทั้งปัจจัยที่มีผลเกี่ยวเนื่องจากวัฒนธรรม และ ปัจจัยที่ไม่เกี่ยวข้องกับความแตกต่างของวัฒนธรรม โดยปัจจัยที่มีผลเกี่ยวเนื่องจากวัฒนธรรมในระดับรายบุคคลคือ วัฒนธรรมประเพณีในการเลี้ยงดู การสนับสนุนจากครอบครัว บทบาทหน้าที่ที่แตกต่างกันระหว่างเพศ บทบาทหน้าที่ที่ยอมรับในแต่ละวัฒนธรรม ในระดับการฝึกอบรมปัจจัยที่เกี่ยวเนื่องจากวัฒนธรรมได้แก่ เช่น [illegible]

รับรองโดย
คณะแพทยศาสตร์ศิริราชพยาบาล
รหัสโครงการ 315/2561 (EC3)
COA No. SI 540/2018
วันที่รับรอง 29 มิ.ย. 2561

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แนวคิดการร่วมกันตัดสินใจ ระยะห่างระหว่างระดับชั้นต่อที่ปรึกษา วิชาชีพสายสุขภาพอื่นๆ และ กับผู้ป่วย ความแตกต่างในด้านเหล่านี้ทำให้บัณฑิตนานาชาติลดความมั่นในตัวเองลง สื่อสารได้ยากขึ้น และเข้าหาระบบสนับสนุนจากที่ปรึกษาได้ยากขึ้น อุปสรรคที่ไม่เกี่ยวเนื่องกับวัฒนธรรมได้แก่ประสบการณ์การพบเจอวิธีการเรียนการสอน หรือ วิธีสอบที่ต่างกันเช่น การเรียนการสอนด้วยการใช้ผู้ป่วยจำลอง ซึ่งมักใช้ในการสอบ objective structured clinical examination (OSCE) หากบัณฑิตแพทย์นานาชาติได้เคยมีประสบการณ์การเรียนกับผู้ป่วยจำลองมาก่อนจะทำให้ได้คะแนนการสอบมากขึ้น นอกจากนี้โครงสร้างองค์กรที่ต่างกันทำให้บทบาทหน้าที่ระหว่างวิชาชีพต่างกันในแต่ละประเทศอีกด้วย

ในงานวิจัยนี้ความหมายของบัณฑิตแพทย์นานาชาติและการย้ายถิ่นฐานแตกต่างจากงานวิจัยจากการทบทวนวรรณกรรมคือ บัณฑิตแพทย์นานาชาติในงานวิจัยนี้มีประเทศบ้านเกิดเป็นประเทศปลายทางอยู่แล้ว แต่การไปเรียนในต่างประเทศอาจยังก่อให้เกิดวัฒนธรรมที่แตกต่างโดยเฉพาะวัฒนธรรมในวิชาชีพและองค์กร ดังนั้นอุปสรรคและปัจจัยสนับสนุนในกลุ่มประชากรเฉพาะนี้จึงอาจแตกต่างกับประชากรบัณฑิตแพทย์นานาชาติกลุ่มอื่น

วัตถุประสงค์ของโครงการวิจัย

เพื่อเพื่อเข้าใจทัศนะของบัณฑิตแพทย์นานาชาติที่มีต่ออุปสรรคและปัจจัยเกื้อหนุนที่มีผลต่อการสอบเพื่อรับใบอนุญาตเป็นผู้ประกอบวิชาชีพเวชกรรม

ท่านได้รับเชิญให้เข้าร่วมการวิจัยนี้เนื่องจากท่านเป็นบัณฑิตแพทย์ที่จบการศึกษาจากโรงเรียนแพทย์ในต่างประเทศที่ได้รับการรองรับโดยแพทยสภา และผ่านการฝึกอบรมแพทย์ฝึกหัดที่โรงพยาบาลนพรัตนราชธานีในปีพ.ศ. 2559

จะมีผู้ร่วมวิจัย/อาสาสมัครนี้ทั้งสิ้นประมาณ 36 คน โดยแบ่งกลุ่มที่จะเข้าร่วมสนทนากลุ่มเป็นกลุ่มที่ยังสอบไม่ผ่าน กลุ่มที่ผ่านขั้นที่ 1 กลุ่มที่ผ่านขั้นที่ 2 กลุ่มที่ผ่านขั้นที่ 3

หากท่านตัดสินใจเข้าร่วมการวิจัยแล้ว จะมีขั้นตอนการวิจัยดังต่อไปนี้คือ

- ก่อนการเข้าร่วมการวิจัย ผู้เข้าร่วมการวิจัยจะได้รับการติดต่อจากคุณ ธิดารัตน์ โดดหนู ทั้งทางอีเมล์และทางโทรศัพท์ เพื่อนัดหมายวันและเวลาในการทำการสนทนากลุ่ม
- การสนทนากลุ่มจะทำทีละกลุ่มโดยหัวข้อการสนทนาจะเป็นเรื่องเกี่ยวกับปัจจัยที่เป็นอุปสรรคและปัจจัยสนับสนุนในการสอบขอใบอนุญาตประกอบวิชาชีพเวชกรรมทั้งในขั้นตอนก่อนไปเรียน ระหว่างเรียนในหลักสูตรแพทยศาสตร์นานาชาติ ระหว่างการเป็นแพทย์ฝึกหัด ใช้เวลาการสนทนากลุ่มครั้งละ 60-90 นาที โดยมีผู้วิจัยเป็นผู้ดำเนินการสนทนา และมีการบันทึกเสียงระหว่างการสนทนากลุ่ม
- ไฟล์การบันทึกเสียงระหว่างการสนทนากลุ่ม จะถูกเก็บในคอมพิวเตอร์ที่ทำการล็อครหัสทันทีเพื่อรักษาความลับให้ผู้เข้าร่วมการสนทนากลุ่ม

รับรองโดย
คณะกรรมการจริยธรรมการวิจัยในคน
คณะแพทยศาสตร์ศิริราชพยาบาล
รหัสโครงการ 315/2561 (EC3)
COA No. SI 540/2018
วันที่รับรอง 29 สค 2561

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- หลังจากการสนทนากลุ่ม ผู้วิจัยจะดำเนินการถอดบทการสนทนาเป็นเอกสารเพื่อนำไปวิเคราะห์ และรายงานผลกลับมายังผู้เข้าร่วมวิจัยเพื่อให้ท่านตรวจสอบความถูกต้องอีกครั้ง หากมีประเด็นที่ไม่ถูกต้องท่านสามารถให้ความเห็นและแก้ไขส่งกลับมายังผู้วิจัยได้
- หลังจากการสนทนากลุ่ม ผู้เข้าร่วมวิจัยบางท่านจะได้รับการติดต่อเพื่อขอสัมภาษณ์รายบุคคลต่อไป
- ผู้เข้าร่วมวิจัยในการสัมภาษณ์รายบุคคลจะได้รับการติดต่อจากคุณธิดารัตน์ โตดหนูเพื่อนัดหมายทำการสัมภาษณ์รายบุคคลทีละคนทางอีเมล์และทางโทรศัพท์ โดยเป็นคนละเวลากับผู้เข้าร่วมวิจัยรายอื่นๆ
- แนวทางในการสัมภาษณ์จะเป็นเรื่องเกี่ยวกับอุปสรรคและปัจจัยสนับสนุนในการสอบขอใบอนุญาตประกอบวิชาชีพเวชกรรม โดยหากผู้เข้าร่วมวิจัยไม่อยากตอบคำถามใด สามารถเลือกที่จะไม่ตอบได้ และหากต้องการหยุดการสัมภาษณ์ผู้เข้าร่วมวิจัยสามารถขอหยุดการสัมภาษณ์ได้ตลอดเวลา
- ข้อมูลที่ได้จากการสัมภาษณ์จะถูกบันทึกเสียง และถอดบทสัมภาษณ์โดยไม่มีการอ้างถึงตัวตนบุคคลที่ได้ให้สัมภาษณ์
- หลังจากการสัมภาษณ์ ผู้วิจัยจะดำเนินการถอดบทการสัมภาษณ์เป็นเอกสารเพื่อนำไปวิเคราะห์ และรายงานผลกลับมายังผู้เข้าร่วมวิจัยเพื่อให้ท่านตรวจสอบความถูกต้องอีกครั้ง หากมีประเด็นที่ไม่ถูกต้องท่านสามารถให้ความเห็นและแก้ไขส่งกลับมายังผู้วิจัยได้
- ข้อมูลจากการเก็บข้อมูลด้วยการสนทนากลุ่ม และการสัมภาษณ์ดังกล่าวจะนำไปใช้เพื่อการวิจัยนี้เท่านั้น จะไม่ถูกนำไปใช้ด้วยเหตุผลอื่น ไม่มีผลต่อการเรียน การทำงานของท่านแต่ประการใด และข้อมูลทั้งหมดจะถูกเก็บเป็นความลับ

ความเสี่ยงที่อาจจะเกิดขึ้นเมื่อเข้าร่วมการวิจัย

การสนทนากลุ่ม และการสัมภาษณ์จะใช้เวลาประมาณ 60-90 นาทีต่อครั้ง การสนทนากลุ่มและการสัมภาษณ์อาจทำให้ท่านเกิดความไม่สบายใจ และความไม่สะดวกได้

หากมีข้อสงสัยที่จะสอบถามเกี่ยวข้องกับการวิจัย หรือหากเกิดผลข้างเคียงที่ไม่พึงประสงค์จากการวิจัย ท่านสามารถติดต่อกับผู้วิจัยได้ที่ ผศ.พญ.กษณา รักษมณี โทรศัพท์ 024197990, 0869076862 และ พญ. ชนันยา ห่อเกียรติ โทรศัพท์ 025174261, 0898512663

ท่านจะได้รับการช่วยเหลือหรือดูแลรักษาการบาดเจ็บ/เจ็บป่วยอันเนื่องมาจากการวิจัยตามมาตรฐานทางการแพทย์ โดยผู้รับผิดชอบค่าใช้จ่ายในการรักษาคือ โรงพยาบาลศิริราช

รับรองโดย
คณะกรรมการจริยธรรมการวิจัยในคน
คณะแพทยศาสตร์ศิริราชพยาบาล
รหัสโครงการ 315/2561 (EC1)
COA No. SI 540/2018
วันที่รับรอง 29 มี.ค. 2561

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ประโยชน์ที่คิดว่าจะได้รับจากการวิจัย

- ผู้เข้าร่วมวิจัยจะได้สนทนาแลกเปลี่ยนความคิดเห็นเกี่ยวกับอุปสรรค และปัจจัยสนับสนุนการสอบเพื่อขอใบอนุญาตเป็นผู้ประกอบวิชาชีพเวชกรรม
- เพื่อนำผลการศึกษามาเป็นข้อมูลในการปรับปรุงระบบการดูแลบัณฑิตแพทย์นานาชาติระหว่างหลักสูตรแพทย์ฝึกหัดเพื่อให้สนับสนุนให้บัณฑิตแพทย์นานาชาติสามารถสอบเพื่อรับใบอนุญาตประกอบวิชาชีพเวชกรรมได้มากขึ้น
- เพื่อเป็นแนวทางในการช่วยเหลือวางแผนเตรียมตัวสำหรับนักศึกษาที่ต้องการไปเรียนหลักสูตรแพทยศาสตร์จากต่างประเทศ

ค่าตอบแทนที่ผู้ร่วมวิจัย/อาสาสมัครจะได้รับ ในการวิจัยนี้ไม่มีค่าใช้จ่ายที่ท่านจะต้องรับผิดชอบด้วยตัวเอง และไม่มีค่าตอบแทนที่ท่านจะได้รับ

หากมีข้อมูลเพิ่มเติมทั้งด้านประโยชน์และโทษที่เกี่ยวข้องกับการวิจัยนี้ ผู้วิจัยจะแจ้งให้ทราบโดยรวดเร็วและไม่ปิดบัง

ข้อมูลส่วนตัวของผู้ร่วมวิจัย/อาสาสมัคร จะถูกเก็บรักษาไว้เป็นความลับและจะไม่เปิดเผยต่อสาธารณะเป็นรายบุคคล แต่จะรายงานผลการวิจัยเป็นข้อมูลส่วนรวมกรณีเป็นการวิจัยทางคลินิก ผลการวิจัยในภาพรวมนี้อาจดูได้จากเว็บไซต์ (http://www.ClinicalTrials.gov/ http://www.ClinicalTrials.in.th.) **ข้อมูลของผู้ร่วมวิจัย/อาสาสมัครเป็นรายบุคคลอาจมีคณะบุคคลบางกลุ่มเข้ามาตรวจสอบได้ เช่น ผู้ให้ทุนวิจัย ผู้กำกับดูแลการวิจัย สถาบันหรือองค์กรของรัฐที่มีหน้าที่ตรวจสอบ รวมถึงคณะกรรมการจริยธรรมการวิจัยในคน เป็นต้น โดยไม่ละเมิดสิทธิของผู้ร่วมวิจัย/อาสาสมัครในการรักษาความลับเกินขอบเขตที่กฎหมายอนุญาตไว้**

ผู้ร่วมวิจัย/อาสาสมัครมีสิทธิ์ถอนตัวออกจากโครงการวิจัยเมื่อใดก็ได้ โดยไม่ต้องแจ้งให้ทราบล่วงหน้า และการไม่เข้าร่วมการวิจัยหรือถอนตัวออกจากโครงการวิจัยนี้ จะไม่มีผลกระทบต่อการบริการและการรักษาที่สมควรจะได้รับตามมาตรฐานแต่ประการใด

ผู้ร่วมวิจัย/อาสาสมัครอาจหาความรู้ความเข้าใจเพิ่มเติมเกี่ยวกับการเข้าร่วมโครงการวิจัยของคณะแพทยศาสตร์ศิริราชพยาบาลได้จากเว็บไซต์คณะกรรมการจริยธรรมการวิจัยในคน http://www.si.mahidol.ac.th/sirb **ทั้งนี้ หากท่านได้รับการปฏิบัติที่ไม่ตรงตามที่ได้ระบุไว้ ท่านสามารถร้องเรียนไปยังประธานคณะกรรมการจริยธรรมการวิจัยในคนได้ที่เว็บไซต์ดังกล่าว หรือที่สำนักงานคณะกรรมการจริยธรรมการวิจัยในคน อาคารเฉลิมพระเกียรติ ๘๐ พรรษา ๕ ธันวาคม ๒๕๕๐ ชั้น 2 โทร. 0 2419 2667-72, 06 3903 4255 โทรสาร 0 2411 0162**

ลงชื่อ..... ผู้ร่วมวิจัย/อาสาสมัคร

(.....)

วันที่.....

รับรองโดย
คณะกรรมการจริยธรรมการวิจัยในคน
คณะแพทยศาสตร์ศิริราชพยาบาล
รหัสโครงการ 315/2561 EC3
COA No. SI 540/2018
วันที่รับรอง 29 ส.ค. 61

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ลงชื่อ.....ผู้ให้ข้อมูลและขอความยินยอม/หัวหน้าโครงการวิจัย

(.....)

วันที่.....

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APPENDIX G
PHOTO TAKEN WHILE COLLECTING DATA

Individual interview

Focus group

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BIOGRAPHY

NAME	Miss Chananya Hokierti
DATE OF BIRTH	12 August 1981
PLACE OF BIRTH	Bangkok, Thailand
INSTITUTIONS ATTENDED	Chiangmai University, 1998-2005 Doctor of Medicine (M.D.) Siriraj Hospital Mahidol University, 2007-2011 Dip. Thai Board of Surgery
RESEARCH GRANTS	None
HOME ADDRESS	59/129 Ramintra Rd. Soi 5 Anusawari, Bangkhen, Bangkok 10220 Tel. 089-851-2663 E-mail: thkmmy033@gmail.com
EMPLOYMENT ADDRESS	Surgery Unit, floor 7 Navarachjakree Building Nopparat Rajathanee Hospital 679 Ramintra Rd. Khan Na Yao, Khan Na Yao, Bangkok 10230

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