

# Factors Related to Professional Self-Concept of Nursing Students and Nurses: A Systematic Review

## Abstract

**Background:** Some nurses leave their job because of working conditions, which will affect nurse turnover. Patients perceive that those nurses are distrustful, and feel unsatisfied, with patients' complaints about nursing service. This study explored factors about the professional self-concept of nursing students and nurses. **Materials and Methods:** A systematic review of cross-sectional studies followed PRISMA guidelines. PubMed, Ovid, Web of Science, and Cumulative Index to Nursing and Allied Health Literature (CINAHL) were used from 1982 to August 2020 with the terms “factors” AND “nurse” AND “professional” AND “self-concept.” A total of 19 out of 4,349 articles were used for analysis. Joanna Brings Institute critical appraisal tools for the analytical cross-sectional studies were used in this study, and narrative synthesis was used to analyze data. **Results:** Professional self-concept of clinical nurses is influenced by including organizational or job factors, and individual and emotional factors. Job factors consist of organizational support, professional ethic, clinical ladder system, nursing experience, position, and time. Besides, sex, age, marital status, education, health status, healthy lifestyle, and experience were categorized as individual factors. Emotional factors were as follows: interpersonal relationships, spiritual growth, management stress, and self-description. Meanwhile, student nurses are influenced by including personal (degree of study and sex), emotions (emotional intelligence, and interest in the nursing profession), and external factors (nursing courses, peer-mentoring experience, and academic burnout). **Conclusions:** Thus, individual factors and emotions have a vital role in constructing clinical nurses' professional self-concept as student nurses. Improving individual and emotional/personal aspects will positively increase professional self-concept.

**Keywords:** Emotions, nursing, organization, self-concept, student

## Introduction

Nurses have a duty to meet the consumer's demand for quality healthcare services. In addition, they have an important role as the biggest number of healthcare workers in the hospital because they contact straight to the patients more than others.<sup>[1]</sup> They keep interacting with patients 24 hours per day and also assure the patients get excellent treatment. Patients will be satisfied if they feel they receive good quality care from nurses. Nurse professional self-concept will help nurses provide outstanding quality of care.<sup>[2]</sup> When they have a solid professional self-concept, they will have good self-esteem, and confidence, with the knowledge to take care of the patients and vice versa.<sup>[3,4]</sup>

Notwithstanding the attentiveness, which is given to professional self-concept, there has been some confusion about what is

described between nurses and nursing students. Cowin<sup>[5]</sup> said that self-concept as a portal to our inner dreams and passions, and to the observed events of our outer world, will be a mechanism to direct and perceive our sense of “self.” In addition, nurses describe an attitude that is focused on professional practice, validated by self-concept.<sup>[6]</sup> Two studies have established a self-concept capable of enhancing work satisfaction<sup>[7]</sup> and nurse retention plans.<sup>[8]</sup> There is a positive significant connection between the nurse's professional status and the general self-concept. Changes in professional status have a reciprocal influence on self-conception and satisfaction.<sup>[7]</sup> In line with the report, the approach for strengthening nurses' self-conception is that nurses feel safer remaining in nursing with self-concept changes of professional

I. Gede  
Juanamasta<sup>1,2</sup>,  
Yupin Aunguroch<sup>1</sup>,  
Sunida  
Preechawong<sup>1</sup>,  
Joko Gunawan<sup>1</sup>

<sup>1</sup>Faculty of Nursing,  
Chulalongkorn University  
Bangkok, Thailand, <sup>2</sup>Nursing  
Program, STIKes Wira Medika  
Bali, Indonesia

### Address for correspondence:

Dr. Yupin Aunguroch,  
Borommaratchachonnani  
Srisataphat, Building,  
Rama 1 Road, Pathumwan,  
Bangkok-10330, Thailand.  
E-mail: yaunguroch@gmail.  
com

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DOI: 10.4103/jnmr.ljnmr\_222\_20

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**How to cite this article:** Juanamasta IG, Aunguroch Y, Preechawong S, Gunawan J. Factors related to professional self-concept of nursing students and nurses: A systematic review. *Iran J Nurs Midwifery Res* 2023;28:642-8.

Submitted: 02-Jul-2020. Revised: 09-Sep-2020.  
Accepted: 20-Jan-2023. Published: 09-Nov-2023.

status.<sup>[9,10]</sup> Increased capacity and acquaintance in nursing and the skilled self-concept of nurses may retain experienced workers.<sup>[11]</sup>

Improving the nursing experience after graduation will allow teaching staff and health workers to enhance their professional self-concept and nurse retention. Dewanto and Wardhani<sup>[12]</sup> revealed 27.78% of nurses leave their job because of working conditions. Working conditions are as follows: salary, working environment, recognition and reward, insecurity, and the gap between management and nursing. The impact of nurse turnover on the patients is that patients perceive those nurses are not professional, distrust them, and show dissatisfaction, with patients' complaints about nursing service. This problem leads to a decreased quality of care.

Various studies have been conducted to investigate the factors influencing professional self-concept. However, there has been no systematic review study that was conducted related to this phenomenon. Moreover, another gap is the different factors between students and nurses. Thus, the result of this study will help the researcher to confirm the elements and answer the gap between nursing students and nurses.

Centered on the difference between professional self-concept nurses and student nurses, this study aimed to explore the factors relevant to the professional self-concept of nursing students and nurses.

## Materials and Methods

This study was conducted from August to September 2020. This study used a systematic review method to draw the conclusion about the factors of professional self-concept. The process of analysis and synthesis used narrative synthesis to synthesize the factors of the article. The study followed Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines as a 27-step checklist.<sup>[13]</sup> All of the authors have checked the final review concerning the fulfillment of the checklist.

The search of journal articles was done by using several databases including PubMed, Ovid, Web of Science, and CINAHL from 1982 to August 2020 without time limitation. The search strategy used medical subject headings' keywords or MeSH. Those were "nurse," "professionalism," "self-concept," and "factors." We used a Boolean search strategy with the operator AND, as follows: (1) nurse, (2) professionalism, (3) self-concept, (4) nurse professionalism self-concept (combination of numbers one to three), (5) factors, (6) 4 AND 5.

The inclusion criteria of this study were cross-sectional studies, published articles, English articles, and full-text access. The exclusion criteria were the outcome of the study involved the other healthcare workers and the article did not use quantitative methods. The study only focused on the nurse students and nurses, so any study involving other healthcare workers was removed.

The screening was done by all of the authors (I.G.J, Y.A, S.P, and J.G). First, the researcher screened by checking for the same article and out of the topic. Then, the title was screened by using a minimum of one term of "nurse" or "professionalism" or "self-concept." The final screening was done by using the exclusion criteria. Those were quantitative studies, other healthcare self-concepts, and used another language than English. There were 19 articles out of 4,349 articles that matched the inclusion criteria and were critically appraised with tools from the Appraisal tool for Cross-Sectional studies (AXIS).<sup>[14]</sup> The dimensions, including introduction, methods, results, discussion, and others, were represented by 20 questions. The answer included yes, no, or do not know/comment. Critical appraisal was done by each author and the result for each article was discussed and categorized as low quality, medium, or high.

Data were extracted and recorded using a table consisting of author names, years, methods, instruments, and findings, including factors related to, and variable dimensions. In addition, content analysis was used in this study.<sup>[15]</sup> All of the authors read each article and labeled the meaningful context. Each important labeling was re-read by each author. The authors collected all of the labelings, then mapped and grouped them to categorize and sub-categorize.

First, researchers categorized internal and external factors. Specific terms were derived into subcategories such as internal factors were derived into individual, emotional, and personal factors. Individually referred to the demographic of the individual, and emotional and personal factors referred to the psychosocial aspect. Besides, external factors for nurse refers to job factors, while for student nurse refers to academic experience.

The authors had different notions during categorizing and other opinions when grouping was discussed until reaching an agreement. The final results of categorizing can be seen in the results.

## Ethical considerations

Ethical approval (376/UN.14.2/KEP/2018) was issued by the Hospital Review Board of Sanglah General Hospital in Denpasar, Bali, Indonesia. In writing the manuscript, the researchers avoided plagiarism in any form. The results of the analysis were quite honest. The researchers avoided data fabrication and manipulation for benefit.

## Results

A total of 4,349 studies were collected. The first screening excluded 2,607 articles because of duplicates and out-of-the-topic. Next step, 1,628 were screened out based on the terms in the title. Then, 114 articles were checked through the inclusion and exclusion criteria. Finally, 19 studies with observational methods remained for further analysis. The articles using nurse respondents were 16 articles and nursing student respondents were 11 articles.

Those articles used four different concepts, as follows: 14 articles used the Cowin concept and questionnaire, five articles used the Arthur concept and questionnaire, three articles used the Sabanciogullari concept and questionnaire and other articles used an unfamiliar concept or developed their own concept. The results were categorized as factors related to professional self-concept and the instrument of the studies. Factors related to professional self-concept were divided into three categories: individual factors, emotional and personal factors, and external factors [Figure 1].

### Individual factors

Individuals' factors were as follows: sex,<sup>[16-18]</sup> age,<sup>[18-21]</sup> marital status,<sup>[19]</sup> education,<sup>[18]</sup> health status,<sup>[22]</sup> healthy lifestyle,<sup>[22]</sup> and experience.<sup>[5,18]</sup> Two studies confirmed that female students have a higher self-concept than males.<sup>[16,17]</sup> It also found female nurses have a better self-concept than males.<sup>[18]</sup> Interestingly, age does not impact student nurses,<sup>[16]</sup> although it has a significant effect on the nurse.<sup>[18-21]</sup>

Sabanciogullari and Doğan<sup>[18]</sup> revealed that nurses with a master's degree background or above have a better self-concept than bachelor's or below. Besides, personal experience helps to develop a good self-concept for nurses.<sup>[5,18]</sup> Another factor is health status and lifestyle. A good health status condition with healthy lifestyle was claimed to construct a higher professional self-concept.<sup>[22]</sup>

### Emotion and personal factors

Several studies found that nurse professional self-concept is related to emotions. It comprises interpersonal relationships,<sup>[22]</sup> spiritual growth,<sup>[22]</sup> management stress,<sup>[22]</sup> and self-description (emotional stability, honesty, trustworthiness, problem-solving, and general self-concept esteem).<sup>[5]</sup> One study revealed that interpersonal relationships and spiritual growth are central to constructing a high nurse's professional self-concept.<sup>[22]</sup> However, management stress has a weak relationship with self-concept.<sup>[22]</sup>

Meanwhile, student emotions, including emotional intelligence,<sup>[23]</sup> and interest in the nursing profession<sup>[16]</sup> have a significant and positive relationship. Personality was found as follows: neuroticism, extraversion, openness, amiability, responsibility, and professional values.<sup>[17,23]</sup> One former study found that the student who is more interested in the nursing profession has a rather better self-concept.<sup>[16]</sup> Besides, Landa and Lopez-Zafra<sup>[23]</sup> confirmed that the emotional factor clearly includes the personal skills necessary to identify and differentiate between the different emotions experienced. In contrast, emotion regulation also implies the ability to alleviate negative emotional states and prolong positive states. When someone has an elevated concept of themselves, they can better control their own and others' emotions. This group is known as the "high self-concept" group. This means that they may also demonstrate a higher level of

empathy toward others, so those nurses must emphasize. However, those with a "poor self-concept" put more focus on their inner selves and emotions, which can hinder their professional growth as a nurse.<sup>[23]</sup>

### External factors

Job factors include organizational support,<sup>[24]</sup> professional ethic,<sup>[25]</sup> clinical ladder system,<sup>[26]</sup> nursing experience,<sup>[19,21]</sup> position,<sup>[18]</sup> and time.<sup>[5]</sup> Cao and Chen<sup>[24]</sup> revealed that organizational support had a positive relationship with professional self-concept. Moreover, a clear and transparent clinical ladder system would increase nurses' motivation, leading to better self-concept.<sup>[26]</sup> Besides, it is related to professional ethics which a nurse who has an excellent professional ethic will have a higher self-concept.<sup>[25]</sup> All of those factors align with the nursing experience and position that would contribute to a stable high self-concept.<sup>[5,18,19,21]</sup>

However, the student will experience their learning place as external factors. Those factors are nursing courses,<sup>[27]</sup> peer-mentoring experience,<sup>[28]</sup> and academic burnout.<sup>[29]</sup> The nursing course has a positive relationship with self-concept in the first year.<sup>[27]</sup> However, the professional self-concept decreases until the final year.<sup>[5,27]</sup> Also, it might be related to the previous study that found academic burnout and peer-mentoring experience influence the self-concept of the student [Table 1].<sup>[28,29]</sup>

### Measurement of nurse professional self-concept

Based on the review, there were seven questionnaires for measuring nurse professional self-concept, including Twenty Statements Test (TST),<sup>[32]</sup> The Professional Self-Description Form (PSDF),<sup>[21]</sup> Tennessee Self Concept Scale (TSCS),<sup>[33]</sup> Professional Self-Concept Nurse Instrument (PSCNI),<sup>[6]</sup> Nurse Self-Concept Questionnaire (NSCQ),<sup>[11]</sup> Professional Self-Concept Inventory (PSCI),<sup>[18]</sup> The Nurses' Self-Concept Instrument (NSCI),<sup>[34]</sup> and Professional Self-Concept Scale for the Student Nurses (SNPSCS).<sup>[17]</sup>

There were three general self-concept questionnaires that measured not only nurses, but also other professions as follows: TST, PSDF, and TSCS. The reliability of the TSCS was 0.85, and the measures of dimension ranged between 0.62 and 0.89.<sup>[23,33]</sup> Hedenskog and Nilsson<sup>[21]</sup> used The Professional Self-Description Form (PSDF), which questionnaire was evaluated in 1974, with a Cronbach alpha of 0.93. There was no reliability resulting from the study using TST.

Sabanciogullari, Doğan, and Bircan developed two different professional self-concepts in Turkish, which were intended for clinician nurses and student nurses.<sup>[17,18,31]</sup> PSCI was developed by Sabanciogullari and Doğan,<sup>[35]</sup> and applied in a study conducted by Kantek and Simsek<sup>[31]</sup> which found the Cronbach's alpha coefficient to be 0.80–0.84 for sub-dimensions and 0.90 for overall scores. SNPSCS was developed by Sabanciogullari and Doğan,<sup>[36]</sup> which was reliability tested at 0.88 and re-tested at 0.79.<sup>[17]</sup>

**Table 1: Factors related to the professional self-concept of nurses and students**

Study	Instrument	Factor related to	Variable (dimension/attributes)
Cao, Chen <sup>[30]</sup>	Nurse Self-Concept Questionnaire (NSCQ)	Perceived organizational support	Cowin's concept Nurses' self-concept (communication, knowledge, leadership, general self-concept, caring, and staff relationships)
Hedenskog, Nilsson <sup>[21]</sup>	The Professional Self-Description Form (PSDF)	Age Working experience	Professionalism, scientific approach, empathy, and discernment.
Kantek and Simsek <sup>[31]</sup>	Professional Self-Concept Inventory (PSCI)	Type of hospital	Sabancıogullari <i>et al.</i> Professional Self-Concept Scale for the Student Nurses (PSCI): Professional self-concept Professional satisfaction Professional competency Professional attitude and skills
Parandavar, Rahmadian <sup>[25]</sup> Kelly and Courts <sup>[20]</sup>	NSCQ The Professional Self-Concept Nurses Instrument (PSCNI)	Professional Ethics Age	Cowin's concept Arthur concept's professional practice (subscales of leadership, flexibility, and skill), satisfaction, and communication.
Min and Kim <sup>[26]</sup>	PSCNI	Clinical ladder system	Arthur's concept
Hense <sup>[22]</sup>	NSCQ	Healthy lifestyle Health status Spiritual growth Interpersonal relations Stress management	Cowin's concept
Sabancıogullari and Doğan <sup>[18]</sup>	PSCI	Age Gender Education Working year Working position of nurses	Sabancıogullari's concept
Cowin, Craven <sup>[5]</sup>	NSCQ	Time Experience	Cowin's concept
Arthur, Sohng <sup>[19]</sup>	PSCNI	Age Married status Graduates Nursing experience	Arthur concept's
George <sup>[32]</sup> Carlson <sup>[33]</sup>	Twenty Statements Test (TST) (Kuhn, 1960) Tennessee Self-Concept Scale (TSCS)		The internal self-concept factors are: self-concept, self-esteem; self-behavior. The five external factors are physical self; moral-ethical self; personal self; family self; and social self.
Landa, Lopez-Zafra <sup>[23]</sup>	TSCS	Perceived emotional intelligence (emotional clarity, regulation, and attention) Personality (neuroticism, extraversion, openness, amiability, and responsibility).	Tennessee Self-Concept Scale

*Contd...*

**Table 1: Contd...**

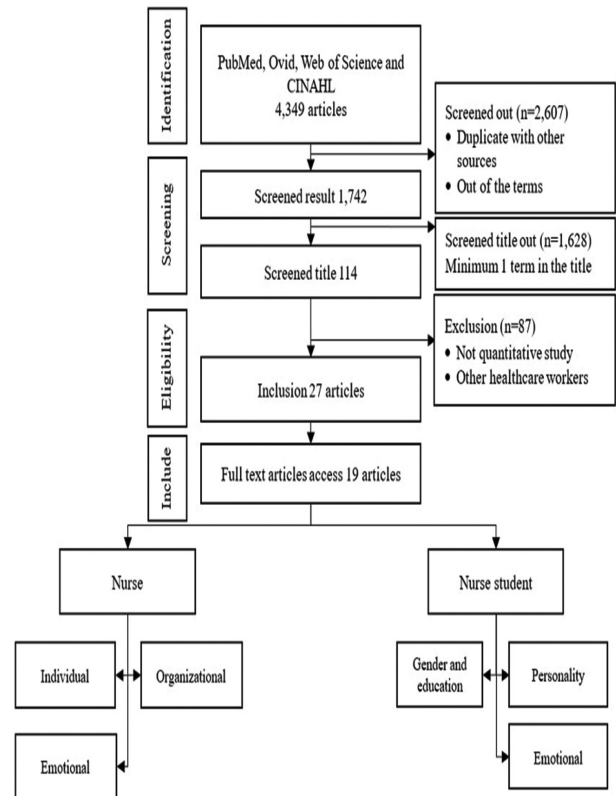
Study	Instrument	Factor related to	Variable (dimension/attributes)
Hensel and Stoelting-Gettelfinger <sup>[27]</sup>	NSCQ	Nursing courses	Cowin's concept
Angel, Craven <sup>[34]</sup>	Nurse Self-Concept Inventory (NSCI)	Local student and International student	Angel's concept The Nurses' Self-Concept (care, knowledge, staff relations, and leadership)
Jahromi, Jahanbin <sup>[16]</sup>	NSCQ	Sex	Cowin's concept
Ford <sup>[28]</sup>	NSCQ	Interest in nursing profession	Cowin's concept
Coplu and Kartir <sup>[17]</sup>	Professional Self-Concept Scale for the Student Nurses (SNPSCS).	Peer-mentoring experience Professional values	Sabancıogullari's concept professional satisfaction professional competence professional attributes
Wang, Guan <sup>[20]</sup>	NSCQ	Academic burnout	Cowin's concept

On the other hand, three questionnaires were developed to measure either nurse or nurse student professional self-concept, including NSCI, PSCNI, and NSCQ. NSCI was developed by Angel, and Craven,<sup>[37]</sup> with a scale ranging from 0.78 to 0.93, and all reliabilities were acceptable for 14 items across four self-concept domains. PSCNI was developed by Arthur,<sup>[6]</sup> with five studies identified using this questionnaire, and Cronbach's alpha was 0.87.<sup>[20,26,38-40]</sup> Farčić and Barać<sup>[41]</sup> conducted a study using NSCQ, which found the reliability of the whole scale was 0.91. In addition, Hensel and Stoelting-Gettelfinger<sup>[27]</sup> reported various dimensions of the range of NSCQ Cronbach's alpha between 0.87 and 0.91. NSCQ questionnaire is likely favorable for a researcher, with 15 studies which were identified using it.<sup>[5,7,11,22,16,24,27,29,41-46]</sup>

### Discussion

Nursing students start to construct professional self-concept in their first year as a student.<sup>[23]</sup> They perceive clarity, emotional repair, extraversion, and accountability which have a positive relationship with self-concept. However, they have a negative association with personality and neuroticism. Those might be influenced by gender, grade of education, emotion, and character.<sup>[17,16,28]</sup> Coplu and Kartir<sup>[17]</sup> showed the result that females had higher scores than males.

In order to increase their knowledge of nursing, their professional self-concept will improve during their studies each year. Students who had a positive view of the nursing image gladly chose their department and earned high scores, including professional satisfaction, competence, and qualities.<sup>[17]</sup> Moreover, peer-mentoring experience positively impacts the powerful concept of a nurse in their mind.<sup>[28]</sup> Students with solid self-concepts feel they have a high degree of nursing abilities and assert themselves in their nursing positions.<sup>[34]</sup> Nursing education services have the potential and responsibility to help students build a clear concept about themselves as nurses. Other factors might influence



**Figure 1: Study Framework**

along the study, such as curriculum, teaching method, or teacher encouragement. Those need further investigation.

These findings can be used by nursing schools, especially to keep student performance on track. A high professional self-concept would impact student achievement during the study. In contrast, low professional self-concept could affect the student's learning, such as could not follow the course well, intention to stay or leave the school, and drop out. Therefore, faculty and teacher could consider a good learning environment and course which can increase

student's professional self-concept. Additionally, it needs to be explored further, and there are many factors that need to be investigated, including mindfulness, healthy lifestyle, resilience, and well-being that may have a positive impact on the student's professional self-concept.

The basic word of the nurse is care, which is said to mean an ethic of duty, a sense of love, empathy, and holistic support.<sup>[5]</sup> Nurses have a higher-than-average understanding of honesty/trustworthiness and this raises the question of whether nurses have a higher self-concept in this dimension because it is reinforced by their role with their patients/clients and other health professionals. Emotional relationships are interpersonal relationships, spiritual development, emotional health, truthful trustworthiness, problem-solving, and general self-esteem.<sup>[5,22]</sup> Individual factors also influenced age, marital status, education, health status, healthy lifestyle, and experience.<sup>[19-22]</sup> The older nurses with married status, bachelor graduate, and experienced nurses have higher perceived professional self-concept than those in reverse.<sup>[19-21]</sup> A healthy lifestyle and health status have a significant relationship with professional self-concept.<sup>[22]</sup> Experience factors might interact with emotional factors and/or individual factors or between emotional factors with individual factors because there has been no study to explore those since the first time the theory was developed.

In professional health care, a nurse professional self-concept is in the majority conditioned by the organizational structure or system. Those showed professional self-concept of the nurse manager in university hospitals was higher than in public hospitals.<sup>[31]</sup> Moreover, perceived organizational support, clinical ladder system, clinical career stage, working experience, and position are positive predictors. Meanwhile, burnout is a negative predictor.<sup>[5,18,19,21,26,47]</sup>

There are many factors in the organization which might impact it. Nurse managers might influence the nursing staff's professional self-concept due to daily interactions with nurses. Nurse inter-relationship with other healthcare workers could be involved in this part. In addition, work culture and managerial competence may have a relationship with a professional self-concept, for which further study is required to explore. Thus, if the hospital or nurse manager can modify those factors, nurses would get high professional self-concept performance.

Nursing schools should encourage the student's self-concept. Intervention through the course or student club activity might help to improve the student thinking about their profession. Moreover, nursing managers have to provide a good work environment and support their nursing staff to achieve a good career.

The limitation of this study was using full-text English articles. It might be there are articles in other languages and limited access. In addition, all included articles did not identify confounding factors clearly. The confounding

factors can give bias in the study's result and impact this review. The other studies considered using a confounding factor to explain the determinant factors that influence professional self-concept. Moreover, the variable impact of nurse professional self-concept needs to be explored.

## Conclusion

This study found that nurse professional self-concept has been started since they the first-year nursing student. Self-concept starts to develop from emotional thinking about their profession and their experience when studying in class and clinical practice. After nursing students have graduated and become nurses, their professional self-concept is influenced by their workplace, specifically the hospital, so further studies related to nursing curriculum, teaching method, and teacher encouragement are required to explore nursing education. In the hospital, the researcher needs to explore the working culture and climate, job tasks, and quality of nursing care. Therefore, the study of professional self-concept needs to increase according to the impact of nursing.

## Acknowledgements

We acknowledge the assistance of the medical native-English-speaking specialist Stephen Pinder from the International Program Manager Department of Clinical Epidemiology and Biostatistics Faculty of Medicine Ramathibodi Hospital Mahidol University for conducting a comprehensive English language review of our manuscript.

## Financial support and sponsorship

Second Century Fund (C2F) and 90th Anniversary of Chulalongkorn University, Rachadapisek Sompote Fund

## Conflicts of interest

Nothing to declare.

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