นิพนธ์ต้นฉบับ

การพัฒนาแนวคิดการดูแลทางทันตกรรมแบบยึดผู้ป่วยเป็นศูนย์กลางสำหรับทันตแพทย์ในระบบบริการสุขภาพปฐมภูมิของประเทศไทย

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บทคัดย่อ

การศึกษาเชิงคุณภาพเพื่อพัฒนาแนวคิดการดูแลทางทันตกรรมแบบยึดผู้ป่วยเป็นศูนย์กลางสำหรับทันตแพทย์ในระบบบริการสุขภาพปฐมภูมิของประเทศไทย แบ่งเป็น 2 ขั้นตอน 1) การทบทวนวรรณกรรมที่เกี่ยวข้องทั้งในด้านทันตกรรม ด้านการแพทย์ และด้านการพยาบาล 2) การสัมภาษณ์เชิงลึก กลุ่มผู้ให้สัมภาษณ์ ประกอบด้วย 3 กลุ่ม ได้แก่ ผู้เชี่ยวชาญด้านการดูแลผู้ป่วยแบบยึดผู้ป่วยเป็นศูนย์กลาง 5 คน ทันตแพทย์และทันตาภิบาล 7 คน และผู้ป่วยทันตกรรมในโรงพยาบาลชุมชน 8 คน ผู้เข้าร่วมได้รับคัดเลือกแบบเจาะจง ใช้แบบสัมภาษณ์กึ่งโครงสร้าง การสัมภาษณ์ส่วนใหญ่เป็นแบบออนไลน์ บันทึกเทป แล้วนำมาถอดบทสัมภาษณ์ และวิเคราะห์เพื่อค้นหาคุณลักษณะด้วยเทคนิค thematic analysis ผลการศึกษาในขั้นตอนแรก การทบทวนวรรณกรรมพบบทความจำนวน 9 บทความ ที่เกี่ยวกับการดูแลผู้ป่วยแบบยึดผู้ป่วยเป็นศูนย์กลางสำหรับทันตแพทย์ และพบว่ามีคุณลักษณะร่วมกันทั้งหมด 9 คุณลักษณะ ได้แก่ การสื่อสาร การวินิจฉัยแยกโรคและความเจ็บป่วย การดูแลแบบองค์รวม การให้ข้อมูลและร่วมตัดสินใจการรักษา ความสัมพันธ์ระหว่างทันตแพทย์และผู้ป่วย ความเห็นอกเห็นใจ การดูแลแบบผสมผสาน การดูแลต่อเนื่อง และการประสานการดูแล ขั้นตอนที่สอง เมื่อวิเคราะห์ข้อมูลจากการสัมภาษณ์กลุ่มตัวอย่างพบว่า มีคุณลักษณะที่เหมือนกับการทบทวนวรรณกรรมทั้ง 9 คุณลักษณะ และที่แตกต่างอีก 3 คุณลักษณะ ได้แก่ การเข้าถึงบริการ การตระหนักรู้ในตนเองของทันตแพทย์ และการจัดการด้านความวิตกกังวลและความเจ็บปวด เมื่อจัดกลุ่มทั้ง 12 คุณลักษณะตามองค์ประกอบโครงสร้างแนวคิดการดูแลผู้ป่วยแบบยึดผู้ป่วยเป็นศูนย์กลางสำหรับทันตแพทย์ในระบบบริการสุขภาพปฐมภูมิได้ 2 องค์ประกอบ คือ 1) การดูแลผู้ป่วยเป็นศูนย์กลางระดับบุคคล 8 คุณลักษณะ 2) การดูแลผู้ป่วยเป็นศูนย์กลางผสมผสาน 4 คุณลักษณะ โครงสร้างแนวคิดนี้สามารถนำไปสู่การพัฒนาเครื่องมือวัดสมรรถนะการดูแลผู้ป่วยแบบยึดผู้ป่วยเป็นศูนย์กลางสำหรับทันตแพทย์ในระบบบริการสุขภาพปฐมภูมิได้ต่อไป

คำสำคัญ: การดูแลด้านทันตกรรมแบบยึดผู้ป่วยเป็นศูนย์กลาง ทันตแพทย์ ระบบบริการสุขภาพปฐมภูมิ

วันที่รับบทความ 10 ตุลาคม 2565

วันที่แก้ไขบทความ 22 มีนาคม 2566

วันที่ตอบรับบทความ 26 เมษายน 2566

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Original article

A conceptual construction of patient-centered dental care for primary care dentists in Thailand

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Abstract

The objective of this qualitative study was to develop a conceptual construct of patient-centered dental care for primary care dentists in Thailand. The study was divided into 2 steps, with the first step comprising a review of publications in dentistry as well as related medical and nursing care concerning patient-centered treatment. The second step involved in-depth interviews with participants using a semi-structured, open-ended interview form. The participants comprised 3 groups including 5 experts in patient-centered care, 7 dental practitioners, and 8 dental patients at community hospitals. The participants were recruited by purposive sampling. Interviews were transcribed and extracted conceptual constructs by using the thematic analysis method. Nine common attributes were extracted from 9 relevant articles, which could be used to create a patient-centered dental care model. These common attributes included communication, disease diagnostic and illness, whole person, shared information and decision-making, dentist-patient relationship, empathy, comprehensive care, continuing care, and coordinated care. In the second step, 12 attributes were obtained from the interview transcripts. The results found 3 different attributes including accessibility and the dentist's self-awareness, and pain and anxiety management, and. The 12 attributes can be formed into 2 specific domains covering 1) patient-centered interpersonal care, consisting of 8 attributes, and 2) patient-centered integrated care, consisting of 4 attributes. Additionally, this notion could be expanded to further research focused on creating a measurement to assess the proficiency of patient-centered dental care for primary care dentists.

Keywords: patient-centered dental care, dentist, primary care

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Background

For many years, the patient-centered care concept has gradually been accepted as one of the most important components in health service delivery[1-4]. The landmark report by the Institute of Medicine in 2001, "Crossing the quality chasm"[5], defined patient-centered care as providing care that is respectful of and responsive to individual patient preferences, needs, and values while ensuring that patient values guide all clinical decisions as one of the aims of quality care. Numerous studies have found that patient-centered care can improve health systems, including improved health outcomes[6-8], increased patient satisfaction[9-11], reduced health expenses[12,13], and narrowed health inequality[14]. The majority of healthcare professionals emphasize patient-centered care, including physicians, nurses, pharmacists, physical therapists, and dentists[15-19]. From the aspect of dentistry, numerous dental care quality problems and dental lawsuits are related to the ability of the dentist to communicate, listen to, and understand the patient, family, and related contexts in terms of social, cultural, environmental, and empathic aspects for the patient[20-22]. These abilities are required for patient-centered dental care. Several scholars in the dental field have studied and proposed patient-centered care models in dentistry, though they remain unsettled[15,23-30]. In an dental academic, there have been some discussions and proposals for this concept to be integrated into the new curricula, mostly in developed countries[31]. For dental education in Thailand, there are some pieces of evidence in articles and curricula about this concept and similar issues such as holistic care, humanized care and comprehensive care[32-36]. However, they are still not clearly understood.

Since the implementation of universal health coverage in 2002[37], the direction of Thailand's health system has focused on providing people with quality services, starting at the primary care level, where patient-centered care is essential. Thus, all health professionals, including dental professionals, need to highlight patient-centered care along with excellence in clinical care. Thailand's primary dental health system is largely organized by the government. A dentist or dental nurse is the primary care provider in community hospitals and primary care units, which serve most of the population. Private dental services, although they are abundant, tend to focus on secondary and tertiary services. While patient-centered dental care is important, knowledge of the concept of patient-centered dental care, especially in a primary care setting, remains uncertain. Therefore, a concept and construct synthesis is needed to describe patient-centered care in primary care dentistry. The purpose of this study is to develop a conceptual structure for patient-centered care for primary care dentists in Thailand.

Methods

This study utilized 2 steps. The first step was a review of the literature concerning both

national and international publications in dental, related medical and nursing care by searching various databases such as PubMed, Science Direct, Google Scholar, and others using search terms such as "patient-centered dental care", "person-centered dentist", and "person-centered primary care dentist". The search was limited to between 2000-2020. The researchers chose specific articles related to the development or proposal of a model for the patient-centered care concept by dentists. The second step was in-depth interviews to gather data concerning the concept of patient-centered dental care. In total, 20 participants in 3 groups were recruited by purposive sampling and the snowball strategy, including 5 experts in patient-centered care, 7 dental practitioners, and 8 dental patients at community hospitals and primary care units. The group of experts consisted of a family physician who had worked at community hospitals for more than 10 years and 4 dentists from various organizations including 3 lecturers in a different faculty of dentistry in Thailand who taught topics related to patient-centered care or holistic care. The last expert was a member of the Dental Council of Thailand, whose work is related to patient-centered care. The dental practitioner group consisted of 6 dentists who practiced regularly at community hospitals and occasionally at sub-district health promotion hospitals (primary care units) for at least 10 years continuously, distributed in 4 regions of Thailand, and a dental nurse who worked for more than 10 years at a community hospital in Buriram province, located in northeastern Thailand. The last group comprised 7 patients and 1 parent of a 5-year-old patient at 4 community hospitals in the Trang, Roi-et, Chiang Rai and Samut Prakan provinces, representing 4 regions of Thailand. The patients had to have received dental treatment more than 2 times within the last 12 months.

Two semi-structured interview guidelines were constructed, with content verified by Pagaporn Pantuwadee Pisarnturakit, the main advisor and co-author. The first guideline consisted of 6 open-ended questions to explore the experiences and expectations of dental care from participants and discussions with the clinicians while receiving dental consultations and/or dental treatment. The second guideline consisted of 9 open-ended questions to investigate how to practice with a patient-centered approach by the dentist and the expert, how they interacted with different patients and how they understood the patient-centered care concept in primary care.

The study obtained ethical approval from the Human Research Ethics Committee of the Faculty of Dentistry, Chulalongkorn University, Bangkok, Thailand (study code HREC-DCU 2021-113) between 4 March 2022 and 3 March 2023. In the second step, the participants who gave their consent were enlisted for interviews from 10 March to 18 June 2022. Due to the restrictions of the coronavirus (COVID-19) pandemic, the semi-structured interviews took from 60-120 minutes via video calls with video recorded,

phone calls with audio recorded, or face-to-face with audio recorded. The video and audio recordings from the interviews were transcribed using Microsoft Word and voice typed in Google Docs then reviewed and verified by the researchers. The data were analyzed according to the 6 processes of thematic analysis, familiarizing data, coding, searching for attributes, reviewing attributes, defining and naming themes, and reporting[38]. The QDA Miner Lite software was used both inductively and deductively to align with the searched attributes from the first step, which revealed some different attributes.

Results

The first step involved the retrieval of 9 related articles[15,23-30]. Most of these studies collected data by interviewing either patients or dentists. Apelian et al.[30] conducted research by observing the patient care of one of the research teams, bringing the observations to the discussions, improving the care approach, and then repeating the same experiment over and over until the model was obtained. Nine common attributes were extracted from these 9 articles as a set of components for the patient-centered dental care model. These included communication, disease-illness, whole person, shared information and decision-making, dentist-patient relationship, comprehensive care, empathy, continuing care, and coordinated care, as shown in Table 1. The details of these attributes are described in the results of the second step.

Table 1 Crosstab between authors and domains from nine studies of the patient/person-centered care model in dentistry

domains \ authors	1. Kulich et al., 2003	2. Hunsrisakhun, 2010	3. Loignon et al., 2010	4. Scambler et al., 2014	5. Apelian et al., 2014	6. Mills, 2015	7. Demiano et al., 2017	8. Lee, 2018	9. Noushi et al., 2020
1. communication		✓	✓			✓			
2. disease-illness management	✓	✓		✓	✓				
3. whole person/human being	✓	✓	✓	✓	✓	✓	✓	✓	✓
4. shared information and decision-making	✓	✓		✓	✓	✓	✓		✓
5. dentist-patient relationship	✓	✓		✓	✓	✓			✓
6. empathy	✓	✓	✓	✓		✓			✓
7. continuation of care						✓	✓		
8. comprehensive care		✓				✓	✓		
9. coordinated care							✓		

The second step involved interviews with three different participant groups, dental practitioners, experts and patients, as shown in Table 2.

Table 2 Characteristics of participants

participant	categories	n
dental practitioners	**age (yrs.)** mean=46.1 (3.72), min 40/max 50	
(n=7 comprising 6 dentists and	31-40	1
1 dental nurse)	41-50	6
	gender	
	male	3
	female	4
	specialty	
	dental public health	1
	pedodontics	1
	general practice (GP)	5
experts	**age (yrs.)** mean=48.0 (6.63), min 43/max 57	
(n=5 comprising 4 dentists and	41-50	3
1 physician)	51-60	2
	gender	
	male	2
	female	3
	specialty	
	dental public health	1
	pedodontics	1
	advanced GP	2
	family medicine	1
patients	**age (yrs.)** mean=49.9 (19.47), min 23/max 75	
(n=8)	21-30	1
	31-40	1
	41-50	3
	61-70	1
	71-80	2
	gender	
	male	4
	female	4
	security insurance type	
	Universal Coverage Scheme	2
	Social Security Scheme	2
	Civil Servant Medical Benefits Scheme	4

Twelve attributes were captured through the thematic analysis method. Most attributes were similar to the reviewed attributes in the first step. In addition, the results found three different attributes: the dentist's self-awareness, pain and anxiety management, and accessibility. There were eight components that about 80–100% of participants mentioned, namely communication, disease-illness, whole person, shared information and decision-making, dentist-patient relationship, empathy, comprehensive care, and accessibility. The other four components are dentist's awareness, coordination care, continuous care and pain and anxiety management; 40–70% of participants mentioned them. There were two concepts underpinning all attributes: the primary care concept and the patient-centered care in clinical encounters soft skill concept. Primary care is the provision of integrated, accessible healthcare services by clinicians who are accountable for addressing a vast majority of personal healthcare needs, developing a sustained partnership with patients, and practicing in the context of family and community. Integrated care is the provision of comprehensive, coordinated, and continuous services that provide a seamless process of care[39-40]. The four findings of accessibility, comprehensiveness, coordination, and continuity of care were related to the range of the definition of primary care, which were grouped into the patient-centered integrated care domain. The other eight attributes were categorized into the patient-centered interpersonal care domain, as shown in Table 3.

Table 3 Patient-centered care of dentists in primary care domains

patient-centered interpersonal care	patient-centered integrated care
1. whole person	1. accessible
2. disease-illness	2. comprehensive
3. shared information and decision-making	3. coordinated
4. dentist-patient relationship	4. continuous
5. dentist's self-awareness	
6. empathy	
7. communication	
8. pain and anxiety management	

The researchers synthesized data from the first and second steps and then proposed twelve attributes for the two domains and their definitions. It also shows some participant quotes to support these attributes.

Patient-centered interpersonal care

1. Whole person

The dentist should provide services to patients by considering their mental and physical health, preferences, interests, and values on issues related to care. Moreover, the dentist should acknowledge the patient's family context as well as the influence of residential communities and personal backgrounds such as education, religion, ethnicity, occupation, and lifestyle, including society, culture, and environment that affect the lives of patients when gathering information to design care and treatment for patients.

"*I've had the experience of not being able to pay attention to the difficulty of the patient's condition. He arrived much later than the scheduled time. I found out later that he had been in an accident and injured his leg, but I did not notice the wounded leg because I was already upset with the patient. I was so guilty from that case,*" one of the dentists said.

"Usually, I carefully observe and study the medical history of the patient including asking about their life and background to get to know the patient better, especially child patients in my area of responsibility," a dentist in a rural area said.

2. Disease and illness

Dentists can assess the patient's thoughts and perceptions of good health, current health conditions, illness or disease progression, and past experiences with illness. Dentists can thoroughly explore the experience of illness, including perceptions of the disease, the patient's feelings about the illness, and the impact of disease and illness on the patient's life in terms of daily life, work, family, and society arising from the illness. Dentists can assess the patient's expectations about treatment and health outcomes.

"*Dentists and doctors alike should use this concept to care for their patients as it's a very useful basic approach. This allows us to assess and care for patients in the most difficult conditions,*" the expert said.

"I'm going to apply to be a police officer, but first there is a physical examination report that I need to treat my 7 decayed teeth. Yesterday, I asked to leave the camp to seek treatment with you. I only have 3 days left before the application deadline. Could you do it for me, doctor?"

The expert talked about his patient, for example, using disease and illness concepts to explore the case even though it took too much time to finish all the treatment needed in one visit. The expert realized that his patient valued the ability to apply for a position as a police officer and was willing to do the treatment during that visit.

3. Shared information and decision-making

When information has been gathered about the illness and the diagnosis of the disease, dentists, together with the patient/ parent/family, must determine the importance of the problems, set the goal and treatment plan by providing complete and appropriate information on the treatment plan, treatment options, pros and cons, and cost of treatment. Dentists should empower and promote patients to share decision-making on treatment options and care, during and after treatment. Dentists should allow their patients to ask questions until they understand the plans and treatment options clearly.

"My dentist recommended and explained the pros and cons, and the cost of different dentures, and suggested which one was right for me. Then I could make the decision together with her," a patient in a rural area said.

4. Dentist-patient relationship

A good relationship between the dentist and the patient is beneficial to care and thus develops the potential for the self-care of the patient. Dentists should respect equality, differences, honesty, patient rights, and confidentiality. The relationship between a dentist and a patient must be within a level or distance that is not too intrusive and is a relationship of mutual trust.

"The most important thing, first and foremost, is that we need to see the patient and any people being seen on the same level as us. Do not view others as being inferior or less knowledgeable than us. This is the beginning of a patient-centered attitude. Everyone is equal. This is the heart of being a patient-centered dentist," an expert said.

"I don't go to get dental treatment anywhere else. I trust and am used to the dentist here. The dentist is kind, calm, friendly and provides quality services. Whenever I have a problem with my teeth, I think of this dentist," a patient in a rural area stated.

5. Dentist's self-awareness

Dentists must have the ability to manage their own emotions. They must avoid getting too involved in a patient's negative or positive emotions and realize that everybody is a human being who can feel different emotions, be aware, and be able to manage personal feelings appropriately when faced with difficult situations for each patient.

"I think it's important to manage your own emotions. A dentist's self-awareness is a necessity. We must try to promote these things. I still have to practice. Sometimes, I get upset but try to hold back while communicating with people during dental services," an expert said.

6. Empathy

Dentists must understand the patient's feelings, acknowledging or sharing feelings about illness or oral health problems as the patient feels. The dentist can look at life or illness from the same perspective as the patient and care with compassion and sympathy.

"We can recognize patients' dental concerns and show them that we understand

and sympathize while maintaining a medical position on a level that is acceptable to both dentists and patients," an expert said.

"The dentist was kind and sympathetic by suggesting the option of getting treatment with a dentist near my home so that I didn't have to go through the hassle of travelling and having to take care of my child," a patient in a rural area said.

7. Communication

Dentists must possess the ability to communicate with patients and relatives. The dentist should greet and introduce himself properly, talk in easy-to-understand language, listen deeply, give enough time to patients and relatives, and communicate appropriately, both verbally and non-verbally, using media for explanations. The dentist must be able to appropriately verify and reflect the level of understanding from the consultation.

"Dentists explain things very thoroughly. Sometimes, I do not understand, so the dentist calmly tries to explain and let me ask questions," a patient said.

"I have to admit that those in the dentistry profession, no matter where he/she is, he/she'll talk politely, have respectful manners, and explain things very well," A patient said.

8. Pain and anxiety management

The ability of dentists to provide services or perform a soft procedure must involve considering the pain sensation of the patient and being able to manage dental fear or anxiety appropriately for different patients.

"I realized that the service was soft, polite, gentle, painless, and attentive to my needs," a patient said.

"I'm afraid of dental treatment every time, but the dentist will make me relax by talking and starting with a simple procedure," a patient said.

Patient-centered integrated care

1. Accessible

The ability of dentists to manage of ease and convenience in receiving dental services that are fast and complete according to the type of work that needs to be reorganized. Punctuality, rescheduling appointments, and ease of access to the dentist, if needed focus on the dentist's role in managing this issue.

"I used to have to lie in the dental chair for hours. The dentist still didn't come to me until I finally had to get out of the clinic without any dental treatment," a patient said about her experience.

"It would be nice to go to the dentist whenever needed. Usually, it takes a long time to get to the dentist," a patient offered.

2. Comprehensive

Dentists' ability to provide services in various types of dental treatment in most conditions, at least primary procedures, refers to expertise. This includes oral health treatment, promotion, prevention, and rehabilitation to maintain good oral health. It covers most oral health problems, including teeth, gums, and oral tissue, as well as taking care of all ages of patients and being able to provide treatment for and reasonably linked to systemic diseases.

"In my opinion, patient-centered care means continuing long-term care that focuses on health promotion rather than occasional treatment," an expert stated.

"It is taking care of the whole mouth. Not just taking care of some teeth but some problems that patients encounter. We need to plan for both oral care and follow-up appointments and if there is any systemic disease involved, we need to help the patient to take good care of the oral cavity," an expert discussed.

3. Coordinated

Dentists can coordinate between the patient, owner dentist, and other dentists or specialists at the same dental office or other dental offices. Dentists must coordinate with assistants and staff in the dental department itself or coordinate with other personnel between departments in the same health service unit smoothly concerning the health or benefit of the patient in a patient-centered way. Here, it focuses on the dentist's role in managing this issue.

"I have to take care of an oral cancer patient in my area. He has a lot of pain. I had to coordinate with the palliative doctor and oral surgeon about a treatment plan for pain control medication. This is the coordinating role of primary care dentists," a dentist in primary care explained.

4. Continuous

The owner dentist follows up for treatment or procedures (clinician continuity) that require ongoing care, such as periodontitis, follow-up after dentures. This means periodic follow-up appointments to maintain oral health (periodic recall) or synchronization of information and records of care when transferring patients between dentists or between services (record continuity) [39-40].

"When referring a patient for treatment to an oral surgeon and a palliative doctor, I must provide complete patient history information and call coordination to ensure continuity of care," a dentist in primary care said.

Discussion

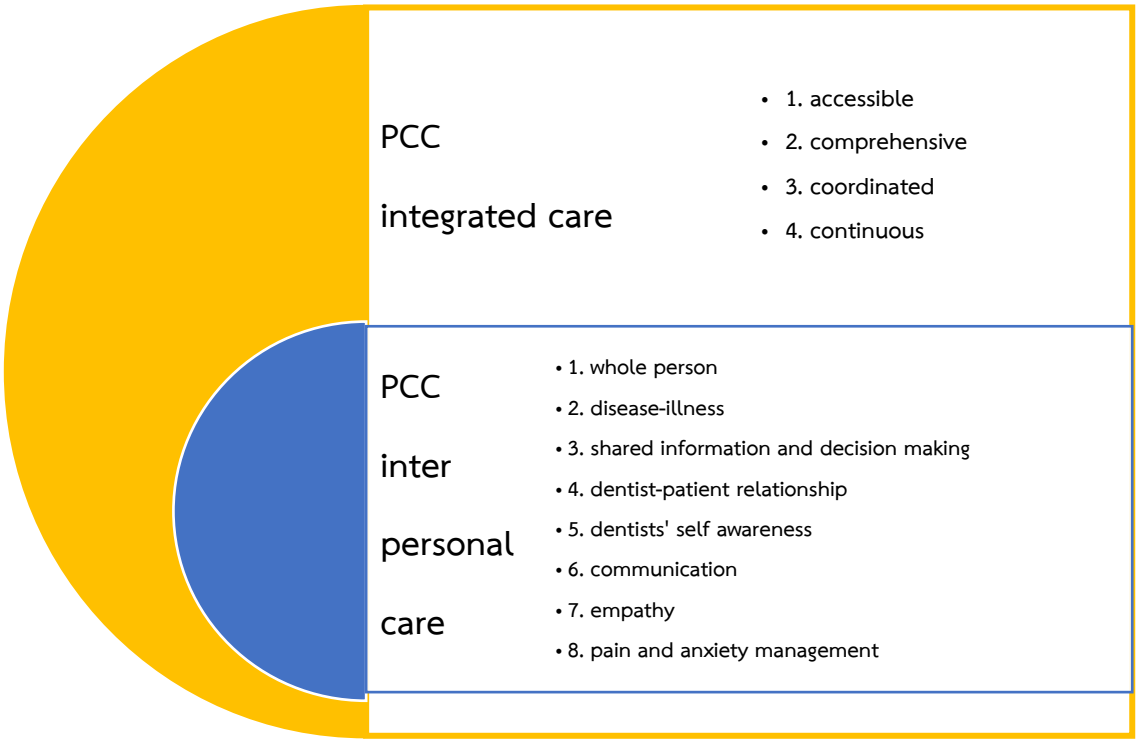
The physician and dentists' participants seemed to agree on the composition of patient-centered care, but there were some differences. Some dental experts emphasized that dentists had to put the perception that patients were equally human beings as a core of every patient approach, similar to Apelian et al. (2014)[30]. Some experts and dentists highlighted the dentist's self-awareness, which is similar to the domain name "doctor as a person", of the patient-centered care physician model by Mead and Bower[19]. This study focused on interpersonal skills and clinical encounter management related to dentists' patient-centered attitudes in daily practice. Thus, irrelevant attributes such as physical environment, good equipment, organization management, setting location, and health system were excluded. Most clinical encounters are related to communication, which starts with connection, mutual trust, shared information, intervention, and dentist-patient relationship[26-27,30,41].

The other 2 prominent findings that emerged, easy access and pain and anxiety management, were highlighted only by patient participants. These showed that there were some different perspectives that professionals did not recognize. In the first step, the literature review, the researchers did not include “accessibility to care” in the pre-defined attributes because all initial understanding of this term involves only system management. After analyzing the collected data, however, researchers redefined this term, referring to timely and accessible, which means short waiting time at the dental office or available appointments for routine treatment, similar to Damiano et al.[23], patient-centered dental home model, and Mills et al.[26]. This took two halves of responsibility, one is dentist him/herself management, and another is system/ organization management. This could enable dentists to manage their time for each patient appropriately. All patient respondents mentioned soft and gentle treatment, including pain and anxiety management. The dental profession is a procedure-intensive service that could induce pain and discomfort when treating a patient's oral cavity. It was also found that dental anxiety was related to bad experiences with dental care in the past. The dentist should aim to understand the nature of dental phobia characteristics and manage them properly by starting from the good view of the patient, similar to the findings of Kulich et al.[15].

The current study grouped 12 findings into 2 domains using the relation to the patient in the clinical encounter and interpersonal skills as criteria. The 8 attributes were identified as the patient-centered interpersonal care domain consisting of communication, whole person, empathy, disease-illness, shared information and decision making, dentist-patient relationship, and dentist's self-awareness. These components were very close to the relationship between dentist and patient, so it was placed at an inner level of the model. The components in this domain were also recognized in the patient-/ person-centered dental care models of Mills et al.[26], Scambler et al.[42], Noushi et al.[27], Kulich et al.[15], Damiano et al.[23], Apelian et al.[30], and Loignon et al.[25] as well as in medical care including Mead and Bower[19], Stewart[43] and institutes, Pickers institute[44] and the Health Foundation[45]. The other four components were grouped into another domain, the patient-centered integrated care domain with accessible care, comprehensive care, continuous care, and coordinated care, which are fundamental to the main components of primary care. These attributes are related to both interpersonal skills. In the clinical encounter and management aspect, most participants realized their importance and could not neglect them if serving as patient-centered dentists. Dentists in primary care should concern with accessibility management, integrate promotion and prevention into their care, manage appointments for continuing care, and cooperate with other dentists or health professionals properly if needed. The researchers placed this domain as an outer level of the model diagram, while it was

realized that there was still overlap in the process of care, especially primary care. Primary care provides integrated care services by clinicians who develop a sustained partnership with patients and practice in the context of family and community[39-40]. These show some relations between primary care function and patient-centered care. Some of the components for patient-centered integrated care were recognized in the model of Mills et al.[26], Damiano et al.[23], and the nursing care model of McCormack et al.[18], as shown in Figure 1.

Figure 1 Patient-centered care model for dentists in primary care



Undeniably, the study of patient-centered care can overlap with the boundary of interest, as evidenced by models in this area for dentists, medical professionals, and nurses. Some studies focus on the level of clinical encounter service, while others broaden the scope to the entire environment, other health professional systems, and the larger structure of the health system[18-19,24,46-47]. Every participant agreed that this approach would be helpful and could improve dental health care. The proposed conceptual structure can clarify this concept in the Thai primary care context. It is impossible to advance the multi-dimensional concept within 2-3 visits. However, it could gradually lead to guiding dentists to the patient-centered approach as learning by doing process throughout their career.

On the other hand, this does not mean that dentists must take care of their patients with all the components to be called patient-centered dentists, but they can start and grow

their mindset patient-centered from some of the attributes. Every dentist should have this mindset and attitude when approaching patients, especially in primary care. The Primary Healthcare Act, B.E. 2562 (2019)[48] mentioned that family physicians should work with a group of allied health professionals with patient-centered care in primary care settings. This shows that Thailand is strongly committed to primary care reform to provide people with easy access to care, good quality services, and reduced cost. Promoting this approach among primary care dentists in Thailand can start from many areas. In addition to dentists developing themselves, primary care facilities should have policies establishing the support environment for patient-centered care practices, such as having dentists work at the sub-district primary care level. It can also start from dental school. This concept should be added to all undergraduate dental curricula.

This study was the first on this topic to propose a care model by gathering data both from the experts/dentists and patients in Thailand. It might be a limitation in terms of getting unclear data from different perspectives between dentists and patient participants. Patient participants were selected from various age groups, insurance types and having at least 2 dental visits within the previous 12 months to reduce bias. Future research with other settings and participants is needed to better clarify the construct. This concept can lead to the establishment of a scale to measure the competency of the dentist.

Conclusion

The study found 12 attributes as a conceptual construct of patient-centered care for primary care dentists in Thailand. They can be grouped into 2 specific domains, including 1) patient-centered interpersonal care and 2) patient-centered integrated care.

Suggestions

1. All dentists should adopt a patient-centered care approach, which can increase patient satisfaction and oral health outcomes.

2. Dentists providing primary care should get as much additional training as possible in patient-centered care through short or comprehensive courses such as family dentistry, primary care dentistry, and advanced general dentistry. Periodically, they should be reminded of this principle through knowledge-sharing meetings, case study sessions.

3. As far as practicality, the Ministry of Public Health and local administration, such as the Provincial Administrative Office, should compel dentists to collaborate with dental nurses and interdisciplinary workers in primary care teams at the sub-district level.

4. The Ministry of Public Health and local administration, such as the Provincial Administrative Office, should have a policy for dentists to work with dental nurses and multidisciplinary personnel in primary care teams at the sub-district level as much as possible.

5. This concept should be added to all undergraduate dental courses by integrating it

into all clinical training or at least in the comprehensive clinical training section

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References

1. Bal A, Mohanty R, Satpathy A, Nayak R, Das AC, Panda S, et al. Patient centered care: A paradigm shift in the delivery of oral health care. Indian J Public Health Res Dev 2019; 10(11): 793-7. doi:10.5958/0976-5506.2019.03582.4.
2. Balint E. The possibilities of patient-centered medicine. J R Coll Gen Pract 1969; 17(82): 269-76.
3. Håkansson Eklund J, Holmström IK, Kumlin T, Kaminsky E, Skoglund K, Höglander J, et al. “Same same or different?” A review of reviews of person-centered and patient-centered care. Patient Educ Couns 2019; 102(1): 3-11. doi:10.1016/j.pec.2018.08.029.
4. Laine C. Patient-centered medicine. JAMA 1996; 275(2): 152-6. doi:10.1001/jama.1996. 03530260066035.
5. Institute of Medicine. Crossing the quality chasm: A new health system for the 21st Century. Washington (DC): National Academy Press; 2001.
6. Rathert C, Wyrwich MD, Boren SA. Patient-centered care and outcomes: A systematic review of the literature. Med Care Res Rev 2013; 70(4): 351-79. doi:10.1177/107755871 2465774.
7. Stewart M, Brown JB, Donner A, McWhinney IR, Oates J, Weston WW, et al. The impact of patient-centered care on outcomes. J Fam Pract 2000; 49(9): 796-804.
8. Xu RH, Cheung AWL, Wong ELY. The relationship between patient engagement and health-related quality of life in patients: A cross-sectional study in general outpatient clinic in Hong Kong SAR, China. Patient Preference and Adher 2019; 13: 1451-62. doi:10.2147/PPA.S216891.
9. Biglu M, Nateqv F, Ghojazadeh M, Asgharzadeh A. Communication skills of physicians and patients' satisfaction. Materia Socio Medica 2017; 29(3): 192-5. doi:10.5455 /msm.2017.29.192-195.
10. Haskard Zolnierek KB, Dimatteo MR. Physician communication and patient adherence to treatment: A meta-analysis. Med Care 2009; 47(8): 826-34. doi:10.1097/ MLR.0b013e31819a5acc.
11. Kuipers SJ, Cramm JM, Nieboer AP. The importance of patient-centered care and co-creation of care for satisfaction with care and physical and social well-being of patients with multi-morbidity in the primary care setting. BMC Health Serv Res 2019; 19(13): 2-9. doi:10.1186/s12913-018-3818-y.

12. Bertakis KD, Azari R. Patient-centered care is associated with decreased health care utilization. J Am Board Fam Med 2011; 24(3): 229-39. doi:10.3122/jabfm.2011.03.100170.
13. Epstein RM, Fiscella K, Lesser CS, Stange KC. Analysis & commentary: Why the nation needs a policy push on patient-centered health care. Health Aff (Millwood) 2010; 29(8): 1489-95. doi:10.1377/hlthaff.2009.0888.
14. Kressin NR, Chapman SE, Magnani JW. A tale of two patients: patient-centered approaches to adherence as a gateway to reducing disparities. Circulation 2016; 133(24): 2583-92. doi:10.1161/CIRCULATIONAHA.116.015361.
15. Kulich KR, Berggren U, Hallberg LRM. A qualitative analysis of patient-centered dentistry in consultations with dental phobic patients. J Health Commun 2003; 8(2): 171-87. doi:10.1080/10810730305694.
16. Lawford BJ, Delany C, Bennell KL, Bills C, Gale J, Hinman RS. Training physical therapists in person-centered practice for people with osteoarthritis: a qualitative case study. Arthritis Care Res (Hoboken) 2018; 70(4): 558-70. doi:10.1002/acr.23314.
17. Lewis N, Shimp L, Rockafellow S, Tingen J, Choe HM, Marcelino M. The role of the pharmacist in patient-centered medical home practices: current perspectives. Integr pharm res pract 2014; 3: 29-38. doi:10.2147/Iprp.s62670.
18. McCormack B, McCance TV. Development of a framework for person-centred nursing. J Adv Nurs 2006; 56(5): 472-9. doi:10.1111/j.1365-2648.2006.04042.x.
19. Mead N, Bower P. Patient-centredness: A conceptual framework and review of the empirical literature. Soc Sci Med 2000; 51(7): 1087-110. doi:10.1016/S0277-9536(00)00098-8.
20. Marei HF. Medical litigation in oral surgery practice: Lessons learned from 20 lawsuits. J Forensic Leg Med 2013; 20(4): 223-5. doi:10.1016/j.jflm.2012.09.025.
21. Narang R, Mittal L, Saha S, Aggarwal V, Sood P, Mehra S. Empathy among dental students: A systematic review of literature. J Indian Soc Pedod Prev Dent 2019; 37(4): 316-26. doi:10.4103/JISPPD.JISPPD_72_19.
22. Newsome PRH, Wright GH. A review of patient satisfaction: 2. Dental patient satisfaction: an appraisal of recent literature. Br Dent J 1999; 186(4): 166-70. doi:10.1038/sj.bdj.4800053.
23. Damiano P, Reynolds J, Herndon JB, McKernan S, Kuthy R. The patient-centered dental home: A standardized definition for quality assessment, improvement, and integration. Health Serv Res 2019; 54(2): 446-54. doi:10.1111/1475-6773.13067.
24. Lee H, Chalmers NI, Brow A, Boynes S, Monopoli M, Doherty M, et al. Person-centered care model in dentistry. BMC Oral Health 2018; 18. doi:10.1186/s12903-018-0661-9.

25. Loignon C, Allison P, Landry A, Richard L, Brodeur JM, Bedos C. Providing humanistic care: Dentists experiences in deprived areas. J Dent Res 2010; 89(9): 991-5. doi:10.1177/0022034510370822.
26. Mills I, Frost J, Kay E, Moles DR. Person-centred care in dentistry - The patients' perspective. Br Dent J 2015; 218(7): 407-13. doi:10.1038/sj.bdj.2015.248.
27. Noushi N, Bedos C. Developing person-centred dental care: The perspectives of people living in poverty. Dent J 2020; 8(3): 2-9. doi:10.3390/DJ8030082.
28. Scambler S, Gupta A, Asimakopoulou K. Patient-centred care - what is it and how is it practised in the dental surgery?. Health Expect 2015; 18(6): 2549-58. doi:10.1111/hex.12223.
29. Hunsrisakhun J. Holistic care in dentistry concept towards clinical practices. J Dent Assoc Thai 2010; 60(4): 293-304. (in Thai).
30. Apelian N, Vergnes J-N, Bedos C. Humanizing clinical dentistry through a person-centred model. Int J Whole Pers Care 2014; 1(2): 30-50. doi:10.26443/ijwpc.v1i2.2.
31. American Dental Education Association. ADEA competencies for the new general dentist. J Dent Educ 2016; 80(7): 825-8. doi:10.1002/j.0022-0337.2016.80.7.tb06153.x.
32. Atisak C. Humanized dentistry. J Dent Assoc Thai 2009; 59(1): 63-73. (in Thai).
33. Owittayakul D, Saenghuttawattana P, Chuengpattanawadee A. Concepts of health and humanized health care in comprehensive dental care. CM Dent J 2017; 38(2): 53-63. (in Thai).
34. Faculty of dentistry. Doctor of dental surgery program (revised 2020). Konkaen, Thailand: Konkaen University; 2020. (in Thai).
35. Faculty of dentistry. Doctor of dental surgery program (revised program 2016). Bangkok, Thailand: Chulalongkorn University; 2016. (in Thai).
36. Faculty of dentistry. Doctor of dental surgery program (revised program 2018). Songkla, Thailand: Prince of Songkla University; 2018. (in Thai).
37. Tangcharoensathien V, Witthayapipopsakul W, Panichkriangkrai W, Patcharanarumol W, Mills A. Health systems development in Thailand: a solid platform for successful implementation of universal health coverage. Lancet 2018; 391(10126): 1205-23. doi:10.1016/s0140-6736(18)30198-3.
38. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol 2006; 3(2): 77-101. doi:10.1191/1478088706qp063oa.
39. Barbara. S. Is primary care essential? [primary care tomorrow]. Lancet 1994; 344(8930): 1129-33.
40. Institute of Medicine. Primary care: America's health in a new era. Washington, D.C.: National Academy Press; 1996.

41. Apelian N, Vergnes JN, Hovey R, Bedos C. How can we provide person-centred dental care? Br Dent J 2017; 223(6): 419-24.
42. Scambler S, Asimakopoulou K. A model of patient-centred care-turning good care into patient-centred care. Br Dent J 2014; 217(5): 225-8. doi:10.1038/sj.bdj.2014.755.
43. Stewart M. The patient-centered clinical method: a family medicine perspective. Turk klin aile hekim özel derg 2013; 17(2): 73-85. doi:10.2399/tahd.13.00073.
44. The British Association of Social Workers. Person-centred care in Europe: a cross-country comparison of health system performance, strategies and structures. [online] 16 February 2016 [cited 2022 Jul 3]; Available from: URL:https://www.basw.co.uk/resources/person-centred-care-europe-cross-country-comparison-health-system-performance-strategies
45. The Health Foundation. Measuring what really matters: Towards a coherent measurement system to support person-centred care. [online] April 2014 [cited 2022 May 16]; Available from: URL:https://www.health.org.uk/publications/measuring-what-really-matters-towards-a-coherent-measurement-system-to-support-person-centred-care
46. University of Iowa Public Policy Center. The need for defining a patient-centered dental home model in the era of the affordable care act background report. [online] August 2015 [cited 2021 Nov 12]; Available from: URL:https://iro.uiowa.edu/esploro/outputs/report/9983557185702771#details
47. Bedos C, Apelian N, Vergnes JN. Towards a biopsychosocial approach in dentistry: the Montreal-Toulouse Model. Br Dent J 2020; 228(6): 465-8. doi:10.1038/s41415-020-1368-2.
48. The Royal Thai Government Gazette. Primary care act, B.E. 2562 (2019). [online] 30 April 2019 [cited 2022 Jun 20]; Available from: URL: https://ratchakitcha.soc.go.th/documents/17087273.pdf (in Thai)