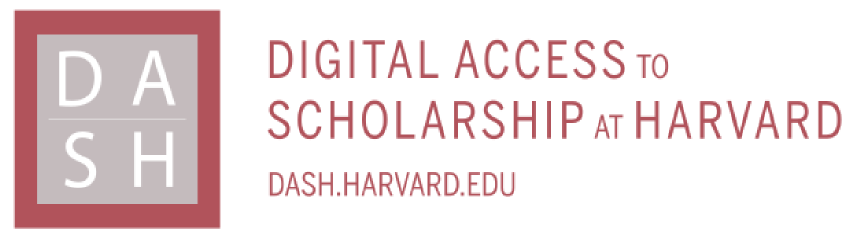

The Characteristics, Supports and Barriers of Feedback Provided to Medical Students: A Mixed Methods Study in a Tertiary Care Medical Institute in Northeastern Thailand

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This Thesis, The characteristics, supports and barriers of feedback provided to medical students: A mixed method study in a Tertiary care medical institute in Northeastern Thailand, presented by Rosawan Areemit, and Submitted to the Faculty of The Harvard Medical School in Partial Fulfillment of the Requirements for the Master of Medical Sciences in Medical Education has been read and approved by:

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Date: March 27, 2017

THE CHARACTERISTICS, SUPPORTS AND BARRIERS OF FEEDBACK PROVIDED TO MEDICAL STUDENTS: A MIXED METHODS STUDY IN A TERTIARY CARE MEDICAL INSTITUTE IN NORTHEASTERN THAILAND

ROSAWAN AREEMIT

A Thesis Submitted to the Faculty of

The Harvard Medical School

in Partial Fulfillment of the Requirements

for the Degree of Master of Medical Sciences in Medical Education

Harvard University

Boston, Massachusetts.

May, 2017

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The characteristics, supports and barriers of feedback provided to medical students: A mixed methods study in a Tertiary care medical institute in Northeastern Thailand

Abstract

Background: The learning culture influences how feedback is provided and whether learners are able to reflect and act on feedback. Thais value cooperation to preserve a natural, hierarchal and social order.

Objectives: To explore feedback provided from faculty to medical students as well as perspectives, enabling factors, barriers and feedback-seeking behaviors.

Methods: This is a mixed methods study; clinical faculty and medical students (years 4-6) were invited to participate in focus group discussions and individual interviews. Baseline characteristics, frequency of feedback, attitude towards feedback and goal-orientation was collected and used to triangulate qualitative data.

Results: Thirty faculty participated in 1 focus group (n=4) and 27 individual in-depth-interviews. Twenty-two medical students participated in 4 focus groups. Students reported receiving feedback in total at least once or twice a month. Faculty overestimated students' negative response to feedback and underestimate students' positive response to feedback. Four major themes were identified: (1) Feedback is the responsibility of faculty; (2) Most feedback is appreciated and accepted if there are action plans for performance improvement; (3) Feedback is initiated by deficit identification and aimed to help students improve; (4) Hierarchy and "kreng jai" perpetuate one-way and top-down feedback conversations.

Conclusion: The existing cultures need to be addressed to appropriately develop programs to foster feedback for student's learning enhancement.

Table of Contents

Chapter 1: Background 1

Chapter 2: Data and Methods 3

2.1 Methods 3

2.2 Results 6

Chapter 3: Discussion and Perspectives 17

3.1 Discussion 17

3.2 Limitations 19

3.3 Conclusion 19

Chapter 4: References 20

Tables

Table 1. Participant's characteristics

Table 2. Frequency and characteristics of feedback provided from faculty to medical students

Table 3. Additional key quotes about feedback provided from faculty to medical students

Acknowledgements

I experienced clinical training in different institutions and cultures, which lead me to become passionate about feedback. My experience as a learner and educator spanned through the balanced, positive, constructive, effective, somewhat not effective and detrimental feedback. I find feedback perplexing and fascinating. How can feedback be best delivered and received? How can learners learn best from feedback, for the benefit of their future patients?

This thesis is an effort to understand feedback in my culture, to assist navigation of effective feedback in different cultures among the word of enthusiastic medical educators. I stand on the shoulders of giants and can only extend this scholarship because of their major contributions to the field of feedback, culture and medical education. And I cannot thank them enough.

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Chapter 1: Background

Feedback is influenced by sociocultural factors; the interaction between the educator, the learner, the content, the context and the institutional culture as well as cultural norms of a given country.[1-3]. Feedback is intended to be formative, to allow learners to gain insight of their current level of performance and recognize where they are on the path to desired goals. [4-6] Therefore to many medical educators feedback is the "cornerstone of effective clinical teaching" and it is part of the set of global standards for basic medical education. [7-8]

Feedback could be used to reinforce positive behaviors (positive feedback) and correct deficits in skills (negative feedback). There is extensive research and literature where principles to provide effective constructive feedback have been described by numerous medical educators. [4-7, 9-13] Despite the attention feedback has gained, feedback remains to be viewed as suboptimal. [1, 14]

Recently there has been a notable shift on the focus of feedback from the role of the educator to the interaction and role of the learner. [15-18] Emphasis is placed on learning goal-orientation, feedback-seeking behavior and reflection. [15-18] Learners who have learning goal-orientations perceive more benefits of feedback and more frequently seek feedback. [17] The relationship with the faculty member and perceived approachability also influences feedback-seeking behavior. [17,18] In order to utilize feedback, reflection is a useful process especially when feedback does not confine with one's self image. [19]

Culture influences how feedback is provided and whether learners are able to reflect and act on feedback. [20, 21] Since culture affects feedback greatly, research findings from Western countries may not be applicable to the Thai culture. There is little literature about how the culture of Thailand affects the feedback provided to clinical trainees. A comparative study about anesthesia training programs found that feedback from Thai faculty are "given to correct behaviors" while Canadians provided feedback "given with care". [22]

Thailand has a collectivist society that is high on power distance. [23] Deeply rooted in Thai culture is the concept of 'kreng jai'; it is how individuals are consider another person's feelings and ego by seeking to restrain their own interest or desire in situations where there is the potential for discomfort, conflict or loss of face, aiming to maintain a pleasant and cooperative relationship. [23-26]

Medical students are juniors of the physician health care team where seniority is valued and highly respected. It is unclear how this power distance and 'kreng jai' may affect how feedback is practiced and accepted in Thailand. In order to maximize the quality and impact of feedback in training programs in medical education, the culture of feedback must be understood.

This study aimed to explore feedback by addressing these following questions.

1. What are faculty's perspectives, perceived enabling factors and barriers to providing feedback to medical students?
2. What are student's perspectives, perceived enabling factors and barriers to receiving feedback from faculty?
3. What is the baseline frequency of feedback provided to medical students?
4. What are faculty and student's learning and performance goal orientation?

Chapter 2: Data and Methods

Methods

Research design

We used a concurrent parallel mixed-methods approach. Qualitative methods were used to explore perspectives of personal experience and emotions, to provide insights into how people make sense of their experience, which cannot be easily provided by other methods. [27,28] We elicited qualitative data through focus group discussions and individual interviews and we used a questionnaire to collect quantitative data to complement the insights. [28]

Questionnaire

We used a 3-section questionnaire to assess participant's baseline characteristics, attitude towards feedback and learning/ performance goal orientation. We provided a description of feedback to facilitate a consistent concept.

We developed the first 2 sections; characteristics included student's gender, year of study, grade point average (0-4), experience abroad and faculty's gender, title, teaching experience, department and experience abroad. The second section included questions about frequency and attitudes towards feedback. Faculty were asked to quantify the average frequency and amount of feedback provided to a student in each year that they taught. Students were asked to quantify the average frequency and amount of feedback they received from faculty. Participants were asked to rate the amount of feedback provided from faculty to students on a 5-point scale from way-too-little to way-too-much. Faculty were asked to choose from 5 different faces, from frown to smile, that represented how they felt when they provided student feedback. Both faculty and students were asked to choose a face that represented how students felt when they received feedback. They were asked to rate the amount of positive and negative feedback on a 4-point scale from never, rarely, often and always. Participants were asked to rate how much they agreed to statements about feedback on a 7 point scale from strongly disagree to strongly agree.

We included a 21-item, 7-point goal orientation questionnaire, which measured 3 constructs of goal orientation; learning, performance-prove and performance-avoid, which was adapted from a previous scale. [29] The scores can be interpreted by comparing to the midpoint of

the scale and were used to establish a baseline and determine between groups within the population studied.

Setting

The Faculty of Medicine, Khon Kaen University, is in the Northeastern region of Thailand.

Sampling

We used purposive sampling to target medical students from clinical years and faculty from different ranks and departments to obtain a wide range of perspective. [30]

Data collection

Email invitations were sent to prospective participants and posters were used to promote the study. Participation in the study was voluntary and written consent was obtained. The study was reviewed by Harvard Medical School protocol #IRB16-0826 and the Khon Kaen University Ethics Committee for Human Research protocol #HE591315.

Individual Interviews

The investigator (RA) conducted individual interviews with faculty participants to facilitate cultural appropriateness.

Focus Group Interviews

To describe and understand perceptions and interpretations of medical student's and faculty's experiences in depth, data collection was obtained through focus group discussions. [31] The hallmark is the explicit use of group interaction to provide insights that may be more difficult to obtain and often remain untapped in individual interviews or questionnaires.[32]

A trained research assistant (psychologist) conducted student focus groups to eliminate power distance. The investigator (RA) conducted the group interview with faculty. Both RA and the research assistant were not involved in teaching medical students at the time of the study.

Interviews were conducted in a private setting. A series of semi-structured probes and open-ended questions were used. Interview questions were piloted beforehand to ensure comprehension. Sample probes included:

What are your perspectives towards feedback provided from faculty to students?

What are the values of feedback to faculty and students?

What helps enable feedback; what are the barriers?

How does culture affect or not affect feedback?

The participants completed the questionnaire hosted by the Qualtrics survey tool. An optional link (which could not be traced back to the survey answers) to enroll in a sweepstakes for Harvard University souvenirs was provided. The study was conducted during September - November 2016.

Data analysis

Interviews were audio-recorded and were transcribed verbatim. Personal identifiers were removed. We used principles of the grounded theory; analysis of the transcripts took place alongside with data collection. Interview transcripts were analyzed for emergent themes by researchers and data collection continued until further themes failed to emerge, suggesting theoretical saturation was achieved. RA and 2 coders analyzed the interviews through a process of individual analysis followed by team discussions and group consensus.

Quantitative data was analyzed separately, the frequency and amount of feedback that each faculty provided was calculated from the average of feedback provided to students among different years. Positive and negative feedback amounts were categorized into 2 categories. Amount of feedback, representative emotive faces and agreement to statements were categorized into 3 categories by preserving the neutral category. Scores for each domain of goal orientation were converted into percentages. Stata Statistical Software (Release 14. College Station, TX: StataCorp LP.) was used for statistics calculation, *t*-test and chi^2 were used when appropriate. Quantitative data was used to triangulate qualitative data.

Results

Thirty faculty participated in the study, 4 in a focus group and 27 in individual-interviews; one participated in both. Faculty sample was obtained from a possible population of 271, from 11 of 13 clinical departments. Twenty-two medical students participated in 4 focus groups; they were sampled from 840 medical students from 3 clinical years. Each focus group consisted of 3-10 students who were in the same year of training including 2 groups of 6th year students (n=3, 3). Individual faculty interviews lasted about 30-40 minutes, faculty focus group discussion lasted 90 minutes and student focus groups lasted 70 minutes.

Participant demographics

Participants' characteristics are shown in Table 1. There were fewer female students overall and only a small proportion of students had the experience of studying abroad. Forty percent of faculty had some training on how to provide feedback, those appointed < 15 years prior had less training on feedback. (*p*-value=0.025).

Frequency and attitudes of feedback

The frequency and attitudes of feedback are shown in Table 2. Students reported receiving feedback in total at least once or twice a month. While 56.7% of faculty stated they provided feedback to a student more than 2 times a month, only 13.6% of students perceived the same frequency. About 50% of faculty and 40.9% of students reported that feedback was too little. Faculty (66.7%) and students (77.3%) stated that positive feedback was often or always available. Faculty (90.0%) and students (91.0%) stated that negative feedback was often or always available. Faculty (63.3%) chose a smiley to represent their feelings when they provide feedback. Faculty chose fewer smileys (43.3% vs. 81.8%) and more frowns (30.0% vs. 4.6%) than students when asked to choose a face representing how students felt when receiving feedback. Faculty stated they provided effective feedback 65.2% of the time while students felt they received effective feedback 62.5% of the time.

Faculty (96.7%) and students (95.5%) agreed that feedback is important for students and faculty (96.3%) and students (81.0%) agreed that it is appropriate for students to solicit feedback from faculty. Faculty (96.7%, 73.3% and 86.7%) and students (100%, 81.8% and 95.5%) scored beyond the goal-orientation midpoint for learning, performance -prove, and performance- avoid (21-item scale □=0.90).

Table 1. Participant's characteristics

Faculty (n=30)	%	Students (n=22)	%
Female	60.0	**Female**	31.8
Teaching Experience (years)		**Year in medical school**	
<15	50.0	4	45.4
>15	50.0	5	27.3
		6	27.3
Title		**Grade Point Average**	
Lecturer	33.3	2.5 - 2.99	4.5
Assistant Professor	23.3	3.0 - 3.49	50.0
Associate Professor	33.3	3.5 - 4.00	45.4
Professor	10.0		
Departments		**Sources of feedback**	
Anesthesiology	10.0	Faculty	100
Emergency Medicine	6.7	Residents and fellows	72.7
Internal Medicine	10.0	Medical students	50.0
Obstetrics and Gynecology	13.3	Non-physician health care providers	45.5
Ophthalmology	3.3	Patients and their family	50.0
Orthopedics	6.7		
Otolaryngology	3.3		
Pediatrics	33.3		
Psychiatry	6.7		
Radiology	3.3		
Surgery	3.3		
Had training about feedback	**40.0**	**Had training about feedback**	**33.3**
Teaching experience <15 yr	25.0*		
Teaching experience >15 yr	75.0*		
Interested in feedback training	66.7	**Interested in feedback training**	40.9
Studied abroad >3 months	**66.7**	**Studied abroad >3 months**	**18.2**
North America	46.7	North America	9.0
Asia	3.3	Asia	4.6
Australia	6.7	Australia	0.0
Europe	10.0	Europe	4.6

* $p < .05$

Table 2. Frequency, characteristics, attitude towards feedback provided from faculty to medical students and goal-orientation scores

Feedback Experience	Faculty	Students	*p*-value
Feedback frequency provided (%) **(times per person per month)**			
0	10.0	0.0	
1-2	33.3	86.4	
>3	56.7	13.6	
Feedback amount (%)			0.720
Too little or way too little	50.0	40.9	
Just right	43.3	54.6	
Too much or way too much	6.7	4.5	
Feedback was about things done well (% often and always)	66.7	77.3	0.404
Feedback was about things to improve (%often and always)	90.0	91.0	0.913
When I provide feedback, I feel (%)			
☹☹	10.0	na	
😐	26.7	na	
☺☺	63.3	na	
When students receive feedback, they feel (%)			0.015
☹☹	30.0	4.6	
😐	26.7	13.6	
☺☺	43.3	81.8	
Estimation of percent of effective feedback* Mean	65.2	62.5	0.704
SD	25.5	24.4	
Attitudes toward feedback (% agree, strongly agree)			
Feedback is important for students	96.7	95.5	0.822
I feel comfortable providing feedback	93.3	77.3	0.094
I feel comfortable receiving feedback	90.0	86.4	0.685
I feel comfortable seeking feedback	na	63.6	
I provide effective feedback	60.0	na	
It is appropriate for students to actively seek feedback from faculty	96.3	81.0	0.084
Goal orientation scores (%)			
Learning Goal Orientation Mean	80.5	82.8	0.386
SD	10.9	7.3	
Performance Goal Orientation-Prove Mean	65.0	69.3	0.193
SD	11.6	11.9	
Performance Goal Orientation-Avoid Mean	69.5	77.9	0.021
SD	13.5	10.9	

* faculty answers = % of providing effective feedback, student answers= % of receiving effective feedback
na=questions were omitted

Qualitative analysis

From our qualitative data analysis, we identified 4 major themes:

1. Feedback is the responsibility of faculty.
2. Most feedback is appreciated and accepted if there are action plans for performance improvement.
3. Feedback is initiated by deficit identification and aimed to help students improve.
4. Hierarchy and "kreng jai" perpetuate one-way, and top-down feedback conversations.

These themes are described in greater detail along with representative quotes below. Additional key quotes are presented in Table 3.

Theme 1

Feedback is the responsibility of faculty.

Many faculty expressed that it was their responsibility to provide feedback to students under their supervision, whom they defined as those currently rotating through the ward or department. For those not directly under their supervision they would notify the faculty in charge. Others considered all medical students their responsibility; to them the school was a large home.

> "When students are under our supervision, we need to provide feedback, not doing so means that we are not living up to our standards. Those who don't do it are not teachers, teachers have to point out the pitfalls and show them the way. A fierce teacher is normal, a permissively kind or inattentive teacher is not a teacher, they are just floating around. It is a duty that we have to commit to. If we don't do it, we are setting them up for failure."
>
> Faculty

Students voiced that feedback provided by faculty occasionally was perceived as a way for faculty to fulfill their duty rather than facilitate a student's learning (quote1).

Faculty valued feedback but faced competing priorities, with little time for feedback. Some faculty voiced that providing feedback was very challenging They stated that they would appreciate more guidance and development on providing constructive feedback.

Many faculty found the idea of feedback-seeking by students intriguing and expressed that it is an appropriate strategy. Faculty also stated that they receive immediate indirect feedback about their teaching and feedback skills from observing students' reactions on the feedback provided (quote 2).

Theme 2

Most feedback is appreciated and accepted if there are action plans for performance improvement.

Students appreciate many styles of feedback if the comments, positive or critical, are actionable. Their desire to recognize their deficiencies in comparison to expected standards of performance allows them to accept comments about their flaws.

> "This was one of my most positive experiences…it was the last month of my 3-month rotation… I was heavily criticized and disheartened. It was an intense conversation, but at the same time the faculty strongly showed his intention to teach me… He didn't just say 'a good doctor has to be more detailed' but he inspired me to become more than that, he showed me the purpose. I was impressed by his message ….he allowed me to see exactly what I overlooked, which was so important to patient care. I was so inspired; it was like…engrained into me, now when I take care of patients want to be as holistic as he is."
>
> Student

Students believed that feedback was credible when faculty took the time to observe their performance or reviewed their written reports (quote 3). When faculty showed minimal interest, students felt like they had wasted time.

Students reported that much of faculty feedback was specific and guided learning. Effective feedback was called “positive feedback”, regardless of the positivity or negativity of the tone of the comment (quote 4). Harsh feedback made students uncomfortable, yet they believed it was useful to help them improve (quote 5).

Feedback comments that were not specific, actionable or emotionally overwhelming were considered to be detrimental to motivation to learn as well as performance. The good intentions of faculty who provided such feedback were doubted. Students who had such negative experience often lost respect for the faculty and avoided further interactions.

Theme 3

Feedback is initiated by deficit identification and aimed to help students improve.

Most students and faculty focused on feedback that was typically initiated by a problem or a deficiency. Faculty emphasized the importance of corrective feedback to prevent critical consequences. The frequency of feedback appeared to correlate with frequency of performance deficits, which leads to the association of feedback with negativity.

> “The word ‘feedback’ is associated with students doing something wrong, then we will provide them feedback. It is used when something bad happened then students get a response …which are usually negative things. If the student did something good, they get praise; it’s not feedback, right? Or maybe it’s because our society doesn’t really give praise, so when I hear ‘Here are the student’s feedback.’ I feel it is negative right away.”
>
> Faculty

In contrast, student’s strengths rarely initiate feedback and are limited to instances of exceptional performance. Faculty expected students to be performing at their very best and did not see the need for positive feedback (quote 6).

Positive feedback has been considered “useless” by some faculty, who called it “praise” rather than feedback. However, benefits of positive comments mentioned included: enhancing students’ self-esteem, which could increase their receptivity to constructive feedback; and

increased ability of students to gauge their performance and maintain their standards. It appeared that only a few faculty incorporate positive feedback regularly (quote 7).

Theme 4

Hierarchy and "kreng jai" perpetuate one-way, and top-down feedback conversations.

Culture appeared to have a major role in shaping feedback conversations; key elements raised by participants include hierarchy and kreng jai (being considerate by taking another person's feelings and ego into account by seeking to restrain their own interest). [24-26] In general, faculty are highly regarded by students because of their age, experience and status. An additional layer of hierarchy within the structure of 'family' is also present.

> "In Thailand, there are many social classes and orders, which affects feedback. First is how students view faculty, it's like…faculty are reborn angels and very highly regarded. So whatever they say is somewhat a commandment, when actually it may not be. This can cause problems because students may take it as a commandment to obey. And students may memorize it by rote and not realize the reason behind it. It would be difficult for them to transfer the knowledge and skills to use in different situations."

Faculty

Overall faculty are higher on the power differential than students. According to participants, this perpetuates one-way and top-down communication where faculty are entitled to 'give' and students are entitled to 'receive' feedback. The majority of feedback is prescriptive, where a problem is identified and a solution is suggested. Very few engage students in developing future plans for improvement.

> "In Thai society, adults are placed high above, particularly if they are faculty. I watched movies from other countries and there they respect each other, but they can talk and have dialogues. But for Thais, students and younger ones cannot 'override the thread' if a faculty doesn't come down to talk to us we cannot get up there for a conversation. We are separated by a huge gap. I wish we could reduce it."

Student

Kreng-jai solidifies the gap between faculty and students. Most faculty have little kreng-jai for students while students have a tremendous amount of kreng-jai for faculty (quotes 8, 9). Some of the young faculty expressed difficulties in providing feedback because they are closer in age and there is more kreng-jai for students.

Though many students feel they would benefit from more feedback, the kreng-jai effect inhibits them from disturbing busy faculty. If feedback is not provided, it takes courage and interest for students to solicit it (quote 10). When denied, students feel unheard, devalued, disempowered and silenced (quote 11).

Students identified characteristics that make faculty approachable. Without previous interaction, faculty who are young, or have children seem to be more approachable. Students are willing to approach faculty with whom they have had positive experiences and those who provide useful feedback as perceived by them. Faculty who are viewed as emotionally unstable, self-centered and uninterested are avoided.

Students identified “departmental cultures” that influence the quality of feedback. The gap is widened by rotation structures that do not enable establishment of relationships or allow faculty to observe student’s progression.

In addition to the 4 themes, faculty who trained abroad also compared their experience of feedback to feedback in their current institution. In general, feedback abroad is provided with respect, it engages the recipient in more dialogue; it was also more frequent, useful, direct and specific, especially in the Europe and America.

Faculty who studied in European countries, describe more direct characteristics, whereas faculty who trained in North America describe it as also positive and sometimes too positive.

“They tend to be more direct and specific. I don’t like how they give praise for even the smallest things, but I really appreciate how they address the issue directly so that I can improve. They would say something like ‘I want you to focus on this issue, perhaps this aspect of it’. They don’t use intense tones or sound sarcastic. They say it so I can feel their well intentions. But they also like to say ‘excellent’ ‘perfect’ when I know it wasn’t.”

Faculty

Training: North America

“In Thailand we are more timid, especially the students, they don't want to ask questions. In America they speak up and raise questions, but a lot of it is sugar coated. Europe was different, there was no hesitation and of course no kreng-jai at all. If the work weren’t good, they would say ‘This is not good enough, you need to revise it, and if it is not done well, I don't think you will pass.’ It was clearly understood, but it was not delivered in any aggressive way, it was just direct. Sugarcoating? What’s that?”

Faculty

Table 3. Additional key quotes about feedback provided from faculty to medical students

Theme No.	Theme Category	Theme Description	Quote No.	Quote
1.	**Feedback is the responsibility of faculty.**	Feedback provided by faculty occasionally was perceived as a way for faculty to fulfill their duty rather than facilitate a student's learning.	1	"Sometimes they just use their role as a teacher and just go ahead and teach. Some faculty feel that their responsibility is just to teach, not to facilitate learning, or to do any coaching." **Student**
		Feedback seeking by students is an appropriate strategy.	2	"Having someone to provide feedback is very helpful to anyone, and for students it is personally more helpful than listening to any lecture or reading any book because it's tailor made, just for them. It allows them perceive how their performance is so they can improve. Students need to have this kind of attitude, they need to be open-minded, and listen especially to things they have not yet got right. It would be awesome to have a student come to ask me for feedback, I don't remember if that has ever happened." **Faculty**
2.	**Most feedback is appreciated and accepted if there are action plans for performance improvement.**	Students believed that feedback was credible when faculty took the time to observe their performance or reviewed their written reports.	3	"My preceptor read my whole report and circled the places that she didn't understand. I was really impressed because she didn't grade it until we discussed it together. On the contrary, my friend's preceptor skimmed the report and mistakenly blamed him right away. For me, if she understood what I wrote, if it were wrong, I wouldn't mind at all if she gave me a hard time." **Student**
		Effective feedback was called "positive feedback", regardless of the tone of the comment.	4	"Positive feedback is when faculty gives us information on what went wrong and advice on how to make it right, that is OK. At least I get to know where my deficiencies are and then I will get to where I am supposed to be." **Student**
		Harsh feedback made students uncomfortable, yet they believed it was useful to help them improve	5	"Personally, I don't really have issues with faculty who give harsh feedback. I try to understand them. But secretly I don't like it; I wish that we had a learning environment with more mutual understanding. I guess we need a revolution. When I feel uncomfortable, I tell myself not to do this to my future students. Maybe that's the way feedback was provided when they (faculty) were medical students. And he may have felt the same way as me. But you know, people make mistakes. … Nobody sees bad things and consciously want to pass it on, nobody." **Student**

Theme No.	Theme Category	Theme Description	Quote No.	Quote
3.	**Feedback is initiated by deficit identification and aimed to help students improve.**	Student's strengths rarely initiate feedback and are limited to instances of exceptional performance.	6	" I don't directly give positive feedback, if I do most of the time it's just praise, such as 'OK. Good job', 'That's great', 'You're doing a great job', something like that. Maybe it's because of my expectations for students, they should be performing well, this is what they should already be doing, so if it is not something that exceptionally stands out, then they don't get positive feedback." **Faculty**
		Benefits of positive comments were mentioned and a few incorporate positive feedback regularly.	7	"We should give positive feedback because students who are doing things well are great examples for their peers. I like to do it because everyone has some kind of strength. Once we point out their strengths, their peers learn to appreciate it too. I seek to find strengths, even if deep inside my mind I mostly see deficits. When I provide feedback I will always find a positive thing to say first. **Faculty**
4.	**Hierarchy and "kreng jai" perpetuate one-way, and top-down feedback conversations.**	Most faculty have little kreng-jai for students.	8	"Kreng-jai doesn't affect feedback that I give to students, and it shouldn't for any teacher. Kreng-jai is appropriate when we disturb others, but here we are helping students improve. We would be hurting our students if we were kreng-jai and end up not giving them feedback." **Faculty**
		Students have a tremendous amount of kreng-jai for faculty.	9	"Sometimes it is difficult to find my preceptor. Faculty are very busy so I don't dare to make an appointment to ask for feedback. I feel very kreng-jai because they may not be available." **Student**
		Many students feel they would benefit from more feedback, but the kreng-jai effect inhibits them from disturbing busy faculty	10	"I want feedback, but to me it is to be given, if I ask for feedback it feels like I am forcing the faculty to provide it to me…And if I bother them, it's like I am pressuring them to do it. In our culture and society, faculty are…there is this distance, that restricts us from walking up to faculty to say 'Teacher, could you please give me some feedback?' most of the time it's almost impossible." **Student**

Chapter 3: Discussion and Perspectives

Discussion

The results of our study indicate that there were significant differences in the perception of students and faculty regarding the frequency of feedback and students' feelings when receiving feedback. Both groups believed that feedback was an important aspect of medical education. Both faculty and students were able to offer suggestions to improve the quality of feedback. These included (1) stimulating feedback-seeking by students, (2) faculty establishing a positive climate for feedback exchanges, (3) faculty providing both positive and constructive feedback, and (4) institutions providing support for feedback training and value for respectful feedback conversations that decrease the negativity associated with feedback. Additionally, institutions can emphasize that feedback is intended for the professional growth of learners rather than for criticism or humiliation.

Learning culture is "the culture where learning takes place"; it is a set of shared attitudes, beliefs, practices and values that underpins how institutions or disciplines design education for its learners. (33) The culture allows effective feedback to prosper by establishing expectations for the educator-learner relationship, feedback norms and directs attention of feedback towards specific aspects of performance. (20,21) Differences of learning cultures between professions and countries have been identified. (20,21, 34)

Thailand's culture has high power distance and values collectivism, opposite to the United States or Canada. (23) High power distance is characterized by inequality between superiors and subordinates and a high degree of centralization. Collectivism values close long-term commitment to the group, family and relationships resulting in loyalty to their group. In contrast, North American culture has less power distance and values individualism. (23)

Thai culture is reflected in our results on the culture of feedback. (23-26) Hierarchy manifests in a gap between faculty and students and the nature and direction of communication. Kreng-jai sustains the course of communication. Collectivism is portrayed in consideration of students as part of the medical school family, consolidating faculty's responsibility to provide feedback. As a result, when feedback was provided, it was mostly constructive but could occasionally be judgmental and destructive. Constructive feedback was accepted and valued by students, similar to a study from Japan. (34) Interestingly, perspectives from North America were

different to ours. Prominent contrasts were; faculty's challenge of providing negative feedback and the culture of niceness, which is perceived as a barrier to honest feedback. [35, 36]

Discrepancies between faculty and students' concepts and perceptions of feedback are not uncommon. [14,15, 37, 38] Our study presents mismatched mental models held by both groups in the following aspects. Faculty's concept of feedback was centered at faculty activation while students' concept of feedback was for learners to be able to learn. Faculty perceived that students do not like feedback when the majority of students do. While constructive feedback was beneficial, positive feedback was undervalued. Faculty welcomed students to solicit feedback, but students clearly perceived the obstacles and cost from interactions with faculty, the system and the culture.

Teaching does not always result in learning, similarly providing feedback does not always result in receiving feedback. Adult learners construct their understanding by drawing on their past experience, knowledge, motivation to learn, and their ability to be self-directed. [11, 39] Literature on feedback suggests that the learner should be the enactor while the educator should be the enabler. [11,15-18] Learners should be engaged in respectful dialogues, encouraged to solicit feedback, participate in self-reflection and develop a future plan. [11, 15-18]

Learning goal-orientation is related to perceived benefits of feedback and feedback-seeking behavior while performance goal-orientation is related to perceived cost of feedback. [17] In this study, all of the students and a substantial proportion of faculty scored beyond the midpoint for learning goal-orientation. Students clearly stated the desire to learn from constructive feedback, a phenomenon also present in residents and junior faculty in America. [36, 41] Students expressed difficulties in communicating with faculty similar to previous Thai education literature. [40] Psychological safety and trust encourages students to seek feedback 'to learn' rather than to appear competent. [11] Empowering students alone is insufficient; cultivation of trust through faculty-student relationships is seminal. [11]

Faculty can facilitate the process by acknowledging emotions, creating a respectful environment, where the learner and educator work together towards performance improvement where goals and objectives of feedback are directly communicated. [4-7, 9-13] They can use their expertise to discuss performance gaps, explore the student's perspective, resolve misunderstandings, offer guidance, help students specify goals and suggest ideas for

improvement. [11] In our study only 40% of faculty had training in feedback, faculty development is essential.

Limitations

Our study is limited to a single institution; participants shared an interest in feedback, which may result in stronger views than those who did not participate. Through interviews, it is possible for participants to express perspectives that are more positive or socially desirable. We acknowledge that questionnaire responses could potentially be affected by prior interviewing on the topic of feedback. The results of this study are interpretations from a certain time at this institution and may not be reflective of future attitudes.

Conclusion

Faculty development and student support programs need to address the existing culture to design an appropriate curriculum for feedback. This can be relevant to other Asian cultures and provides international views of feedback in medical education.

Chapter 4: References

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