Exploring Clinical Rotation Competence Improvements after Interpersonal Skills Development in At-Risk Medical Students

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Abstract

Prior to admission, medical students were subject to psychological tests to measure their logical thinking skills and personality, hence predicting their ability to complete their studies. The results showed 56.45% of medical students obtained recommendation category 4 (doubtful) and 5 (not recommended), two categories which are considered to be at-risk group with a very small probability of completing their studies. These results predicted that students in the mentioned groups will have difficulties in achieving the clinical competence level required by the Indonesian Doctors’ Competency Standard (IDCS). The aim of the study was to investigate clinical competency achievement by at-risk medical students in the third year, after following interpersonal skills development training program on July 2011. This research used qualitative study design through psychological examination, written self-reflection and in-depth interview after the training. Interpersonal skills development training for at-risk medical students gave positive effects to their character development for the helping profession. It was concluded that interpersonal skills training could help improve medical student’s achievement of clinical competence especially for at-risk group in their clinical rotations stage.

Keywords: medical students, at-risk group, interpersonal skills, clinical competence

Eksplorasi Perbaikan Kompetensi dalam Rotasi Klinik pada Mahasiswa Kedokteran Kelompok At-Risk Setelah Pelatihan Pengembangan Keterampilan Interpersonal

Abstrak


Kata Kunci: mahasiswa kedokteran, kelompok at-risk, keterampilan interpersonal, kompetensi klinik.
Introduction

Recently, the demand for "good doctors" have increased in the community as they became more critical of the medical services they receive. Good doctors can be defined as doctors that have acquired adequate clinical competence in addition to good interpersonal and communication skills which are prerequisites for a successful doctor-patient relationship.\textsuperscript{1,2} Intelligence and advanced cognitive skills that are useful in learning needed to be balanced by good personality which encompass interpersonal skills and empathy. Another important character aspect for doctors is the capacity of moral reasoning because their profession require direct interaction with patients. Moral reasoning abilities, or its lack thereof have been reported to be strongly related to malpractice issues.\textsuperscript{3} Due to these circumstances, The Indonesian Doctors’ Competency Standard (IDCS) included communication skills as one of the basic skills that have to be trained to students during their education among other skills that all physician should be capable to perform.\textsuperscript{4,5}

With the knowledge that the combination of behavioral aspects with high intelligence is needed to produce qualified graduates, Faculty of Medicine Universitas Indonesia (FMUI) performed psychometric tests to students in their first semester to measure reasoning ability and personality profile. Results of those tests would categorize students to 5 categories based on their predicted success in completing their medical education. The categories were: 1) highly recommended, 2) recommendable, 3) recommended with annotations, 4) doubtful, and 5) not recommended. Those categories were basically divided to 2 groups which are no-risk students group (categories 1-3) and at-risk group (categories 4-5).\textsuperscript{6} The psychometric examination results reported that 105 out of 186 students (56.45\%) were in the at-risk group. However, students from both groups should have the opportunity to achieve satisfactory academic results, thus certain support should be provided to them.

It had been reported that students with academics problems require assistance that can be given through tutorials or mentoring programs.\textsuperscript{7} However, non-academic issues, such as behavior and personality, should also be considered as it can have an impact on students’ academic achievement. Interpersonal skills training programs, such as doctor-patient’s communication skills and empathy is an effort to support students in non-academic aspects.

With reference to those reports, students in the at-risk categories are given interpersonal skills development training as part of the soft skills to balance their hard skills, thus allowing them complete their education especially during clinical rotations stage where they have to achieve a certain competence level. The objective of this research was to investigate clinical competency achievement by at-risk medical students after following interpersonal skills development training program.

Methods

The current research used a qualitative method by using results of detailed interviews to students that underwent interpersonal skills development training on July 2011. Chosen subjects were voluntary third year at-risk students based on their psychometric examination results in their pre-clinical years. A total of 38 students, 9 males and 29 females, were recruited. After ethical clearance from the FMUI Research Ethics Committee, the subjects were given interpersonal skills development training program. The training program total duration was 36 hours, distributed to 4 consecutive days. The program focused on utilizing experiential learning methods by not only providing lecture, but also focused discussion groups, self-reflection writing, role playing various situations and feedback sessions. Psychological analysis with a questionnaire was performed to the participants at the beginning of the training to obtain a general picture of participant’s personality which included self-actualization, anger and angriness which could limit self-development. Detailed interviews were completed at the end of their sixth semester.

Booster activities were given to refresh the students about the materials they received during the training. These activities were performed twice, first one was one month after the training when they started their clinical rounds. The second activity was done six month after the training at the end of their seventh semester. Self-actualization evaluation was repeated at the second booster activity.

In-depth interviews were conducted to random respondents when respondents followed clinical competence evaluation in the seventh and eighth semester. The examination format follows the Mini-CEX assessment that evaluates the students’ clinical competence in medical interview, physical examination and professionalism. Interviews were also conducted to examiners and patients who were involved in the evaluation. In addition, respondents
wrote self-reflections after their clinical competence evaluation in each rotation which may contain anything they experienced during their evaluation. This self-reflection would then be discussed and given feedback by their evaluators.

The interviews were recorded and transcribed. Data were analyzed by the authors using a strategy of triangulation of analysis. This involved the free-flowing reading of the transcripts, so that authors were familiarized with the material and were able to formulate discussion themes.

Results

Being angry and anger

Psychological examinations before the interpersonal skills training generated data on several aspects on the respondent’s baseline personality which includes anger, angriness management and self-actualization. The data on the respondent’s ability to recognize anger is shown by a score from 11 to 90. A score of less than 50 indicated that additional exercises to recognize anger were required. A score greater than 50 showed that the respondent showed adequate ability to recognize, control his/her anger or could express their angriness better. In section the subject’s ability to recognize or manage anger, it was found that 25 respondents (67.57%) were already able to control their anger, while 12 respondents (32.43%) still required training to manage their anger. The number of respondents who could already control their anger and angriness was quite large, so we were optimistic that the goal to develop interpersonal skills could be achieved. The anger scores can be seen in the following graph.

![Graph of anger scores](image)

Self-actualization

Only 37 out of 38 respondents attended the self-actualization aspect of the examination because one respondent came late and could not complete the questionnaire. Results showed that only 4 out of the 37 respondents (10.81%) were already able (A) to achieve self-actualization, while 33 respondents (89.19%) were not able (N) to do so. The second evaluation for self-actualization was done six months after the training and results showed that nine respondents (24.32%) who had not been able to self-actualize were able to do so. One (2.7%) could still self-actualize, while 3 (8.11%) respondents converted from being able to self-actualize to not able to do so. Finally, 24 respondents (64.86%) were still not able to self-actualize.

Interpersonal skills, empathy and good doctor-patient communication skills were also expected results from the training. Those aspects were observed through recorded role-play sessions. Feedback was given to the students after watching the video. In addition, results of the interpersonal skills training could also be observed from self-reflection and deeper exploration through the students’ experiences during clinical practice rotations. Quotations from students’ self-reflection and in-depth interviews are presented below based on their given theme: Communication skills and empathy

A description on the training’s usefulness in developing communication skills and empathy can be observed in some quotations below:

“…This training improved my communication skills, ability to understand others, the ability to manage my emotions, and the ability to show empathy…” (UBP/la/19;112-115).

“…after watching my anamnesis recording, I felt that I was still lagging far behind my peers. I have to work hard to catch up…” (UBP/E/ar/e/13;411-413).
"...This training is very good because I have gained an understanding of how to communicate with other people, that I should be aware of all the differences between individuals and that I should not force my own values on other people..." (UBP2/I/ar/e/09;10-14).

**Self-Actualization**

Overview of self-actualization examination scores showed that 6 months after the training, the results varied widely from some students gaining the ability to self-actualize, losing that skill or had no change at all. Quotations from students' self-reflections were used to further strengthen the analysis on this aspect. Some of those quotations are listed below:

"...I was encouraged to think about my goals/ambitions and I went home with a new spirit to improve myself and always keep my goals in mind..." (UBP2/C/ar/e/23;100-103).

"...I have to put it into practice, and the results are beginning to show. The results are perhaps not very significant, but they can still be cultivated and if I do this continually, I will become a better person..." (UBP2/K/ar/e/26; 251-255).

"...When I learned about the Johari window, I realized that the area that there was still a large area that was closed to myself, because I tend to be a person who cannot accept feedback from others, particularly negative feedback..." (UBP2/D/ar/e/15;499-504).

The quotations above suggested that there had been an improvement in the respondent’s ability to self-actualize after participating in the training sessions. However, some of the respondents were still finding it difficult to make any changes as reflected in the following quotations:

"...although I have not changed much, I now have a clear starting point to which I can refer to improve myself..." (UBP2/F/ar/e/01;172-174).

"...In this training, I received feedback about myself that I was not aware of before. Starting from that point, I have started to do self-reflection to improve myself. I can really see my negative side which I never knew, never paid any attention to..." (UBP2/E/ar/e/13;400-404).

"...I know myself better, I know how to manage my anger, how to communicate with others etc. However, I don’t know why I still find it difficult to apply all this..." (UBP2/E/ar/e/04;427-430).

These self-reflections show that the respondents had already obtained basic intra and interpersonal skills, but they needed more time to apply them. These reactions seemed to suggest that the respondent’s behavioral improvements cannot be determined in a short time.

**The training benefits**

The interpersonal skills training program was reported to be very beneficial and respondents expressed this in their self-reflections, as follows:

"...we need the materials given in the training to be able to become doctors with good personalities. This training was very beneficial for me and has motivated me to become a better person..." (UBP2/C/ar/e/38;122-124).

"...This training has made me aware of my weaknesses and I now have the motivation to eliminate them. This training has also changed my way of thinking and I have gained a new perspective of my life, especially on how to become a doctor..." (UBP2/G/ar/e/30;267-272).

"...I could understand about the potentials that I have not developed yet and are still buried. I could learn about empathic communication methods towards patients and I could be more open to other people... (UBP2/G/ar/e/17;128-131)"

"I am very grateful to be a participant of this training because for the first time during my study in the medical school I can get rid of my low self-esteem and the feeling that I am not doing good enough in everything" (UBP2/A/ar/e/29;59-63).

"...this training should be done not only once, but 2-3 times a year. Also, it should be attended by every student entering clinical rotations, not just by 40 students..." (UBP2/I/ar/e/19;118-120).

Observing the benefits that the respondents felt, it is recommended that soft skills training such as this can be offered to all students in order to balance the hard skills that they already have. Quotations from the students’ feedback showed that the respondents have started to benefit from the training because through developing their inter- and intrapersonal skills they gained more self-awareness and other people. The respondents are beginning to understand how important those skills are in carrying out their future profession in medicine.

During clinical rotations, students inserted themselves into the role as a young doctor that
manages patients in both outpatient and inpatient clinics. Clinical skills were practiced continuously, especially building effective doctor-patient communication. The self-reflection that respondents wrote would complement and add more value to the results of their clinical competence examination. Deeper insight regarding the respondents’ experiences during clinical rotations was acquired by detailed interviews with examiners, students and patients that were involved in the clinical skill examination. These interviews added more information on the impact of the skills training. Several quotations that was deemed important to note are listed below divided into the investigated aspects: Communication skills and empathy

The examiner’s evaluation of verbal and non-verbal communication aspects of the respondents can be seen from following quotations:

"...I think this student was OK...her body language and introduction was also good..." (WMC2/RWS;60-61).

"... In my opinion, recent students have a shorter study periods [than previous generations], through the interviews that I have witnessed so far, they are already quite capable and good..." (WMC2/Re;21-24).

Following are interview quotations from respondents as a self-assessment form:

"...perhaps before the training I used to say whatever I wanted to say. I never used to pay attention to my attitude, or to interview techniques...After the training I knew more. I found out that attitude was important...I also felt that I was more sensitive towards other people after joining this training..." (WMC2/C/ ar/e;38;59-67).

"...on a scale of 0 to 10, I think that my communication was already 8 or even 9. But in terms of clinical knowledge, I feel like dust in the universe [a common phrase used by students in the faculty to describe cluelessness] ..." (WMC2/A/ar/e;29;109-111).

"...I felt that I was able to establish effective and efficient communication, nevertheless, I still lack empathy..." (RD-Psiki2/K/ar/e;26;52-54).

"...I was also required to interview patients. It was there that I found that I had several obstructions in communicating with my patient which was caused by my anxiety when facing a patient. Sometimes I feel really dismayed and lose my spirit to continue studying..." (RD-Psiki2/E/ar/e;13;16-24).

Humanistic/professionalism

The examiner’s evaluation of the students' humanistic attitude or professionalism can be observed in the following quotations from the interviews:

"...but in terms of her professionalism and management are quite good... according to me quite good...this is a smart student..." (WMC2/ RWS;16-18).

The ability to empathize, humanistic and professional qualities have been practiced by respondents as young doctors, can be seen in the following quotations:

"...He even called me 'Doc', even though I had introduced myself as a young doctor. This is the first time that I felt I was useful, I felt that I was really helping the patient. Although all I did was to check the vital signs of Mr. M..." (RD- Pul2/F/ar/e;01;35-40).

"...In between his cries of pain, he was reaching out his hands in my direction. I didn't know what to do, I was hesitant, but finally I held his hand. I wanted him to know that I was there, accompanying him..." (RD-Pul2/F/ ar/e;01;68-73).

"...eventhough I was exhausted from my night-shift, but here I was trained to be professional and become good listener to patients. I realized that sometimes patients just needed us to listen to them to alleviate their misery..." (RD-Pul2/F/ ar/e;23;73-81).

The quotations above are taken from self-reflections of the respondents who have been able to overcome difficulties when first facing patients and were able to establish a good rapport with them. In general, patients gave fairly good assessment of the respondents' competence as young doctors, in terms of anamnesis, physical examination, and professionalism. However, several patients were of the opinion that young doctors still need a lot of practice in communication in addition to their knowledge of diseases, and they should also increase their self-confidence so that they will not appear to be nervous as revealed in the following quotations:

"...this has been achieved, only I was not given the opportunity, I still had questions I wanted to ask..." (WMC2/ IL;113)

"...for the youngest doctor ... yes ... have to learn more... maybe they were goggly... perhaps there was something that they didn’t understand..." (WMC2/ES;20-23).
"...yes, I mean understand the disease, and know a little about medications for the disease...maybe it is because they are still learning that they are not so good at it...but assistance was given by a doctor..." (WMC2/IM; 166-168).

**Obstacle and students’ expectations**

The students are often difficult to express their several problems mainly non-academic problem to education managers. Several respondents felt that it was very important for them to discuss problems that they were having and they felt that they needed a place where they could share and find solutions. Opportunities for counseling and counseling facilities are needed by students, as stated in the following quotations,

"...Perhaps time should be allocated for counseling, however, it should not be done outside our study hours. So a special time to consult facilitators should be provided because my friends and I need personal consultation to discuss problems that cannot be discussed with other people..."(UBP/G-ar/e; 12;478-484).

From above quotation, academic supervisors should aware of problems that are faced by students. Academic supervisor can assist students to overcome their problems to avoid becoming an underachiever.

**Discussion**

Firstly, it should be noted that behavior improvement, self-recognition and self-actualization cannot be full measured in a short time frame. This was supported by Maslow’s hierarchy of needs which mentioned that the highest need is self-actualization and very few individuals are able to fully actualize their potentials. In this research the second evaluation was carried out six months after the training. Results showed that there was an improvement in scores for self-actualization. However, some respondents also showed decreasing and unchanging scores. The change in the increasing scores was perhaps due to the fact that the respondents were able to eliminate their confusion and obtain some skills from the training. The decrease in evaluation scores might have been caused by respondents that realized they were not as good as they thought they were. It can be argued that upon further investigation, there is a possibility that their humanistic qualities had increased. However, for those who had unchanged scores for self-actualization should be given continuous guidance and long-term maintenance perhaps in form of more trainings.

A person who has reached self-actualization will be able to take on criticisms. They would be able to receive both positive and negative feedback to improve themselves, thus these individuals are generally high-achievers. Self-understanding and an understanding of others is very important in the development of doctor-patient communication skills required during the clinical stage. Further investigation in the at-risk group of students showed that the interpersonal skills training they gained had positive effects on their clinical competence achievement and their general experience during their clinical rotations.

Students’ needs to solve personal or non-academic problems through consultation with a trusted person should be facilitated by education managers. Sayer et al. stated that the main key in supporting students with academic problems is understanding the background of the poor performance, particularly non-academic aspects. In general, students with non-academic problems are reluctant to convey non-academic problems to their education managers, thus more attention should be given to them to assist on solving the problem and allow them to reach satisfactory levels of performance in their education.

**Conclusion**

The group of at-risk medical students needs both academic and non-academic support to ensure their satisfactory end for their education. Based on our observations of respondents’ experiences, we found that the training program had positive effects on the behavior of students and improve their clinical rotations experience. Therefore, we conclude that the training should be given to all medical students starting from the first year of their studies at medical school. Furthermore, the training should be given continuously alongside their education. This training program could improve the graduate doctors’ ability to interact with patients, families and communities, which should be able to produce the five-star doctors defined by World Health Organization; doctors who are intelligent, skillful and wise.

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References