

# Lecturer, student and patient's experience toward simulated patient programme: "we all play a role"

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## ABSTRACT

Simulated Patient (SP) is defined as a layperson that simulates to portray the role of a patient with health-related conditions based on varying levels of training. International Medical University (IMU) has been utilising SP for more than 10 years for simulation activities including learning sessions and examination. Due to a series of complex interaction within the SP programme, the aim of the study was to explore the experience of lecturer, student and SPs towards the interaction within the SP programme. The findings of the research were aimed to improve the teaching sessions and examination through the improvement of the SP programme. A total of 17 participants were recruited for 6 interviews, including both focus group and one-to-one interview session. The researcher used a list of guide questions to explore both positive and negative experiences. Manual transcribing and coding technique were used for data analysis, while Qualitative Data Analysis (QDA) was used for data management and additional analysis. The themes for the lecturer group were: SP resemble a real patient, The making of scenario, and SP feedback; while the themes for the students group were: Simulated patient as an effective learning tool, Fairness, and Feedback from simulated patient; whereas Effective learning session, Motivation and Preparation prior class were the themes for the SP group. SPs' contribution was valuable if the SP is able to resemble a real patient and able to demonstrate effective feedback skills. Standardisation of the character portrayal and SP feedback influenced the fairness along the students' journey. Lecturers, SPs and students influenced the success of an SP-based simulation session.

**Key words:** Experience, Simulated Patient, Simulated Patient programme, Qualitative

## INTRODUCTION

According to Onari, Pampaloni and Multak (2012), simulated patient (SP) is defined as a trained individual to portray the role of a patient with various health associated conditions. Nestel and Bearman (2015) refer the term SP to a healthy individual that is trained to portray a patient. Beigzadeh, Bahmanbijari, Sharifpoor and Rahimi (2016) identified SP as a layperson who simulates as a real patient based on different levels of training. To combine the above, SP can be defined as a layperson that simulates to portray the role of a patient with health-related conditions based on varying levels of training.

SP programme has been introduced in International Medical University (IMU) for teaching and learning activities at least 10 years ago and have been fully utilised only by the Medical programme at that time. Studies have reported that SPs' have commonly contributions to trainees across the medical professional training pathway especially developing patient-centred interviewing skills for undergraduate medical students. Besides that, evidence indicates that SP's also contribute in developing clinical features, clinical reasoning, investigated skills, examination skills, procedural skills, operative skills, therapeutic skills, clinical issues as well as teamwork (Nestel, Morrison & Pritchard, 2015). Hence, other health science programmes have started to engage SP as a learning tool in their teaching and learning activities.

This study intended to explore the experience of the user (lecturers and students) as well as SP's themselves. Ultimately, the findings of the research were aimed to improve the teaching sessions and examination through the improvement of the SP programme. Subsequently, the students were able to make more sense on the integration of what has been learned (knowledge), to what to do (skills) and how to do it correctly (attitude) when interacting with the SP's and getting feedback from them (William & Song, 2016; Wisborg et al, 2009; Gamble et al, 2016; Quail et al, 2016).

Effective and appropriate SP-based simulation sessions provide the learners with a safe environment to practise and refine their skill before they enter the real clinical world (Williams & Song, 2016). Consequently, the quality of the SP-based simulation sessions influenced the quality of future healthcare practitioners who impact the quality of healthcare in Malaysia. This study was guided using Theory of Interpersonal Communication introduced by Dainton and Zelly (2005), to answer the research questions, i.e. What is the lecturers', students' as well as SPs' experience towards SP programme in IMU. Figure 1 illustrated the summary of the element for the theory of interpersonal communication.

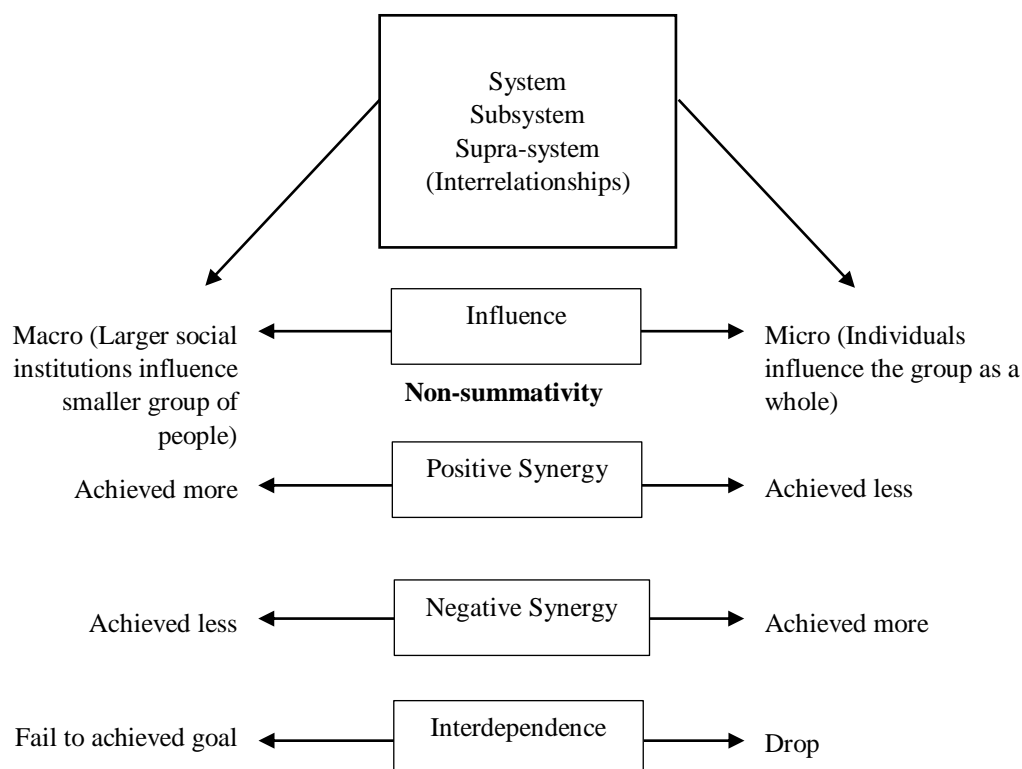


Figure 1: Summary of assumptions of systems perspective and concept of non-summativity

### Definition of interpersonal communication

Literature has defined interpersonal communication in various ways. Dainton and Zelly (2005) described interpersonal communication as both content and context of messages offered to initiate, define, maintain or further relationship development. Solomon and Theiss (2013) defined the word "inter" and "personal". The word "inter" highlighted how interpersonal communication connects people. The word "personal" means the unique qualities a person has matter during interpersonal communication instead of involvement of private topics or those that occur in a close relationship. In other words, interpersonal communication refers more specifically to communication that occurs between people and creates a personal bond between them. Another definition emphasised interpersonal communication as a systemic process which is selective that allows individual to reflect and build personal knowledge of each another and create shared meanings (Wood, 2016).

## **Theories of interpersonal communication**

Dainton and Zelly (2005) presented four theories that are crucial in developing an understanding of interpersonal communication: system perspective, politeness theory, social exchange theory, dialectical perspective. The systems perspective takes an interactional view of relationship maintenance by focusing on repeated and interdependent dealings. Politeness theory clarifies the strategies individuals use to maintain their public image. Social exchange theory evaluates relationships on the basis of rewards and costs which determine the continuity of a relationship as well as the satisfaction of partners. While the dialectical perspective described the contradictions individuals inevitably face within their personal relationships and explains how the management of these contradictions can predict success or failure of a relationship. This research focused on the system approach which is discovered on the communication that takes place among groups of interacting individuals (Dainton & Zelly, 2005).

### **Assumptions of system perspective**

The assumptions of the system perspective clarified the term system, subsystem and supra-system. The term 'system' refers to a group of individuals who are interrelated to form a whole; 'subsystem' defines a smaller part of the group as a whole; while 'supra-system' describes the larger system within which the system operates (Dainton & Zelly, 2005).

According to Wood (2016), interpersonal communication takes place within various system or contexts that influence what happens and have meanings we attribute to interaction. It means that an individual's action both affect and reflect another individual's actions (Solomon & Theiss, 2013). Dainton and Zelly (2005) identified that there is mutual influence between members, as well as subsystems, systems and supra-systems in two ways: macro approach and micro approach. Macro approaches recognise how a larger social institution influenced a smaller group of individuals, while micro approaches provide understanding on how an individual and interpersonal relationship between the individuals are able to influence the group as a whole (Dainton & Zelly, 2005).

### **Concepts of system perspective**

Dainton and Zelly (2005) identified three concepts of system perspective: non-summativity, homeostasis and equifinality. Briefly, non-summativity means the whole is greater than the sum of its parts; homeostasis refers to the natural balance or equilibrium within groups; while equifinality suggested that there are multiple ways to achieve the same goal. This research focused on the non-summativity concepts, which suggested that a team is different from an individual quantitatively and qualitatively. All the members in the system influence each other. The members of the system work together and create more achievement than an individual. The member achievement is regarded as positive synergy, while negative synergy means an individual achieve more than the system as a whole achievement. Dainton and Zelly (2005) identified that interdependence lead to non-summativity, for example, if an individual or individual group of members did not perform, this will affect the system's achievement as a whole. Wood (2016) expressed that elements of communication systems are interdependent; each element is tied to all the other elements.

This research proposed to recognise each part within the interaction because it affected meaning to each other, such as situation, time, people, culture, personal histories, and so on. Thus, the authors cannot assume that combining the various parts of a system can help to understand the impact on communication. Based on the theory of the system perspective, lecturers, students, and SPs formed a system, where these three groups of members repeatedly interact with each other. The individual within the system represents a subsystem in the SP programme. The SP programme is regarded as the supra-system, where the groups of individuals operate within the system. This theory has guided the authors to investigate the interrelationship within the system as well as between the system and the supra-system through the exploration of the participants' experience. The authors understand that the achievement of the SP programme influenced a group of people or an individual's experience and vice versa. These influences can happen between the individual group (either lecturer, student, or SP alone) as well as between the groups (lecturer, student, and SP) which impacted on the outcome of the SP programme.

The non-summativity concept explains the achievement of a group is different from the achievement of an individual within a system. For example, SP's gained various medical knowledge, but this did not impact on the success of the SP programme. Dainton and Zelly (2005) called it negative synergy. Whereas positive synergy occurs when the success of the SP programme did not equal to the success of a facilitator. However, the SP programme will never achieve the outcome of a simulation session if one of the groups of members is absent. It could be either the lecturer, student or SP, which further explain the interdependence between all systems of members. The authors intended to explore the participants' experience toward SP programme in IMU. This would include the experience, the interrelationship, interdependence as well as influence between the member within the system, sub-system and supra-system.

## METHOD

### Study design

This study was designed using a descriptive qualitative study to produce the description of exploring the experiences of the lecturer, student and SP towards the SP programme in IMU. The study has gained ethical approval from Faculty of Nursing and Allied Health Sciences (FONAS), Open University Malaysia (OUM) as well as approval from the Director of Clinical Skills and Simulation Centre (CSSC) in IMU.

### Participants

This study gathered data from three groups of participants, i.e. Lecturer, student and SP using purposive sampling method. The author recruited participants through e-mail and face-to-face based on the inclusive criteria stated in Table 1. A reminder e-mail or phone message was sent one day before the interview session. A total of seventeen participants were recruited. The group size for three groups of participants ranged from four to six: four lecturers, five students and five SPs. Data were collected from June 2018 to August 2018. Each interview lasted from 39 minutes to 70 minutes. The focus group interview for lecturer group took place during the semester break in June 2018 and the researcher spent one hour 39 minutes to collect data regarding the experience of the lecturers. The students' group took 56 minutes and interview conducted during the examination break in July 2018. The focus group interview with SPs was arranged before one of the teaching and learning sessions in August 2018 took place and the discussion was up to one hour and 10 minutes.

Table 1: Inclusive criteria for participants

Group of participants	Inclusive criteria	Exclusion criteria
Lecturer	<ul style="list-style-type: none"> <li>• Willing and voluntary participation.</li> <li>• Have at least one experience of conduct simulation and teaching sessions.</li> <li>• Have been involved in at least one OSCE session using SP.</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct less than one teaching sessions using SP.</li> <li>• Involved in less than one OSCE session using SP.</li> </ul>
Student	<ul style="list-style-type: none"> <li>• Willing and voluntary participation.</li> <li>• Have more than a year of experience involving in SP-based simulation activities.</li> <li>• Have interacted with any SP in at least one OSCE session.</li> </ul>	<ul style="list-style-type: none"> <li>• Have less than one-year experience involving in SP-based simulation activities.</li> <li>• Have interacted with any SP in less than one OSCE session.</li> </ul>
SP	<ul style="list-style-type: none"> <li>• Willing and voluntary participation.</li> <li>• Have enrolled as SP for more than one year.</li> <li>• Have attended at least one SP training, one SP-based simulation session and one OSCE session.</li> </ul>	<ul style="list-style-type: none"> <li>• Enrolled as SP for less than a year.</li> <li>• Have attended less than one SP training, teaching session and OSCE session.</li> </ul>

## **Instrument**

In a qualitative study approach, the researcher is regarded as the tool for the study because the researcher is involved in the data collection, analysis and interpretation. The researcher obtained data from the participants, created a context in order to obtain rich data about participants' experience, establish the flow of communication, listen, translate and interpret data, find meaning in the data and communicate that meaning in writing (Waruingi, 2013). A list of guided questions is used to assist the researcher to explore the experience of participants towards the SP programme in IMU. The main idea of the questions was to develop an understanding of the participant's positive and negative experience towards the SP programme as well as their ideas/suggestions on how to improve the programme. The guided questions were divided into three parts: ice-breaking questions, experience-focused questions and optional questions.

**Lecturer.** The questions for ice-breaking were to discover how many years of teaching experience using SP, their role in the SP programme and how do the lecture perceive their role. The questions that guided were to explore both their positive and negative experiences which focused on the training and/or briefing with SP, teaching classes and OSCE. Additional questions that were optional for the researcher to raise included how the lecturer perceived SP training contribute to student learning, especially preparing students for their clinical year, as well as comment on communication skills and standardisation of SP training.

**Student.** The researcher began by asking how long students have been enrolled in the programme, followed by exploring their positive and negative experience with SP during both class and OSCE. The optional questions were focused on the aspects that the researcher intended to explore, such as how the students feel when they knew the learning will be involved SP; how they perceived the learning process knowing that the SP was scripted; and how the students feel when having trained with the same SP but with different scripts.

**SP.** The interviewer started with asking the number of years the volunteer has participated as an SP. The researcher intended to develop a deeper understanding regarding their positive and negative experiences with students during classes, with staff/SP programme coordinator, lecturer during class and OSCE itself. There was no additional optional question for SP.

## **Data collection and interview design**

Two trail interviews with the SP coordinator and one pilot interview with six SPs were conducted to ensure that the questions were comprehensive, understandable and appropriate for the research aims. In this research, focus group in-depth interview was employed as the data collection method to explore opinions or perceptions towards the programme. The interview sessions were done in a closed room in CSSC, IMU, to provide a familiar environment and easy access for participants. The conversations were recorded using the Multimedia Cubicle Management software programme in CSSC as well as smartphone audio recording system as a backup.

Before beginning the interview session, the researcher greeted and expressed appreciation toward the responders for volunteering to be a participant in this study. The researcher emphasised the study objectives and reminded that the interview session will be recorded and have obtained verbal consent. The researcher encouraged the participants to give sincere opinions and ensured that the participants allowed to repeat the same idea/opinion, followed by some ground rules, such as silent phone and one person talk at one time.

The researcher has a list of topic or broad questions to be covered in an interview. The researcher used a written guide of the topics or open-ended questions to conduct a focus discussion of the topics. The purpose of the in-depth interview was to uncover details of the interviewee's experience by allowing the participants to talk freely about all the topics on the guide (Polit & Back, 2014; Allmark et al, 2009; Kumar, 2011). Building rapport with the responders is regarded as a key element in a successful qualitative interview (King & Horrocks, 2010). The researcher began with few questions for ice-breaking purpose before began a list of focused questions.

According to Guest, Namey and Michell (2013), due to the focus was on individual lived experiences, phenomenological in-depth interviews are less likely to systematically compare than others. An interviewer is likely to start with one board question and some affiliated follow-up topics. However, the discussion must follow the participant's response that would lead to a greater extent, focusing on the details of an experience that are most important to the individual. The researcher raised open-ended questions and the group of participants were encouraged to discuss the topic freely. The interviewer was using the probing technique to develop a

deeper understanding of the participants' experience when the answers given were vague or ambiguous. The example of probing technique which was practised included "Tell me more about.", "Can you share more about...", "Give an example" and "Why do you say so?". Closed-ended questions, leading questions, given an example of answers were avoided during the data collection process. The participants were given one last chance to express their thoughts, opinions or idea before ending. After the last round of sharing, the interviewer ended the interview session by expressing appreciation towards the participants again and ensured the confidentiality of the data.

### **Rigour and Trustworthiness**

Poilt and Back (2014) and Tappen (2011) recommended several strategies to enhance the rigour and trustworthiness in qualitative studies such as video recording and verbatim transcription, triangulation, saturation of data, member checking, peer review, peer debriefing, negative case analysis, thick and vivid description, transcription rigour or data cleaning, audit trail and reflexive journal.

### **Video recording and verbatim transcription**

In order to record every single data of the interview session, the researcher used the video recording as well as an audio recording to obtain raw data, follow by manual verbatim transcription by the researcher. The researcher carefully transcript each of the conversations between the interviewer and interviewee.

### **Triangulation**

The researcher was using triangulation of qualitative sources, which referred to compare and cross-check the consistency of information derived at different times and by different means from interviews. In this research, the comparison was the perspective of people from different points of view (Patton, 2015). The researcher obtained different viewpoints from the three different groups of participants: lecturer, student and SP. As the researcher intended to study the participant's experience, the viewpoints of the programme user as well as a service provider were able to provide broader information regarding the SP programme. Additionally, the researcher recruited the participant who has different years of experience toward the programme to maximise richer data obtain. The years of experience varied from less than a year to more than 10 years among the participants.

### **Reflexive journal**

According to Bloomberg and Volpe (2016), keeping a reflexive journey was for the purpose of self-reflection that create an open and honest attitude toward the study. Reflexivity encompasses deeper reflection and makes it more systematic. Another way to describe reflexivity was the interpretation of interpretation, self-questioning and self-understanding (Patton, 2015). The researcher kept a reflexive journey by recording each event, especially the data collection procedure and data analysis procedure, including reflection towards the focus group interview skills, process of participants' recruitment, pilot study, and unforeseen circumstances occurred during the interview session, transcription, manual coding, and use of computer software for data analysis procedure. This reflective action provided the researcher awareness about own feeling, perception, challenges faced, learning from the incident as well as plan for improvement.

### **Audit trial**

Audit trial is defined as providing a detailed and thorough explanation of how data were collected and analysed (Bloomberg & Volpe, 2016). The researcher reported detailed data collection procedure as well as data analysis procedure.

### **Data analysis**

Verbatim transcriptions were done for all six interviews. The author labelled segment by segment, followed by carefully interpreting and categorising the labels (manual coding). The author clustered a few categories and formed as a theme, which potentially answered the research questions. Combination of manual coding and Qualitative Data Analysis (QDA) Miner Lite was used to assisting data analysis and management. Both authors double-checked with each other prior to finalising the themes of the study.

## RESULT

A total of five lecturers volunteered to participate in the interview session. All lecturers were from the Faculty of Medicine of IMU, with teaching experience using SP ranging from six months to five years. A total of six students were involved in the interview session. The participants' learning experience with SP ranged from one and a half year to three years. Six SPs participated in the interview session. There were five female SPs and one male SP; age ranged from the 30s to 50s; and year of experience as SP ranged from one year to eight years. A total of nine themes emerged for this study: lecturer, student and SP; three themes each.

### Lecturers

The themes that emerged were SP resemble a real patient (most frequent coded), followed by the making of scenario, and SP feedback.

### SP resemble a real patient

Participants expressed that SP's resemble a real patient. Thus, SP's are useful in preparing medical trainees for future interaction with real patients, and help to improve their communication skills. "To me, it looked like real lah, but pretended that he doesn't understand it. So, I was like really impressed. But it was nice because the students really have to adjust the way they ask the question, because he reacted that way." – LST Lecturers mentioned that SP's able to portray the realistic role, such as the language used, appearance, emotional respond, body gesture; and stay in-role consistently. "He came and he dressed so casually with the cap, and the way he gave his answer was short, there were not full sentences, like somebody don't have a good common of English at all.

Sometimes, that was some question that the students ask, he even pretended, wah, to me, it look like real lah, but pretended that he don't understand it." – LST Lecturers observed that interference during the teaching and learning sessions does disturb the realistic portrayal of the character. "SPs try to portray certain mood, but the whole class doesn't get that mood, the emotion come out. You can see the SPs trying very hard in that emotion, sometimes students, some facilitators not really following or cooperating with the SPs, set the whole mood, students won't feel it. We don't want to interrupt their role so much when they are already in their role, don't stop the class, or stop whatever, ask them feedback, you know?" – YNP

### The making of scenario

All five lecturers shared their approaches that improved the preparation of SP for sessions. "SP to reflect because they have to think about, what would the patient be if I vomiting out blood all the times, so next time they can act better. Otherwise, they also don't know what is vomiting out blood is, how would you feel, so get the student feel what if you are vomiting out blood, most important, what would you feel? Focus on feeling, think about what will you feel, want the student to actually feel what the pain of the patient." – YNP.

Majority of participants felt that there should have some changes in the SP script, such as content and length. "The scripts have to be what we expect SP to portray, to act out. So, the script is very professional, then the SP will become the professional. You want the script, you want the SPs is like you writing the script for play, what you think the character to be, what is the training of the character, what is the background of the character, instead of just putting a medical case." – YNP Few lecturers mentioned regarding SPs' active participation during and after the preparation of the class. "They were like very attentive. They really like focused on what I said, and the thing that they really get it." – YNP "You train them something, they seem like they understood it, they know how to do it, but during the class, they didn't do it." – YNP

### SP feedback

Majority lecturers observed that the content of SPs feedback either focused on teaching content or soft skill content. "Become very content based, and the things is that sometimes they even ask the content, they reminded the content. Sometimes they will say, oh you forget to ask me that my father died at 70 or something like that, and is so silly." – LST "Like eye to eye contact for example, the expression, showing empathy, showing respect, so they will tell this, showed respect." – EM Participants expressed that the SP feedback skills were not

consistent. “The feedback that I should be giving content, not on them. They forget their role as a patient, and that become our role coiling with each other.” – ANP “They give a good feedback, in term of making a student understand whatever they do is important, is affecting a patient.” – YNP

However, lectures do agree that SP feedback did impact student learning experience. “They rightly said that student actually put more value in SP feedback, so actually their feedback is more important. So, if you ask them for feedback for communication, they can’t give any value, don’t ask, ask those that can give, those cannot give, no point asking.” – YNP

### **Students**

The themes that emerged were Simulated Patient as an effective learning tool-coded the most, followed by Fairness, and Feedback from simulated patient.

### **Simulated patient as an effective learning tool**

Participants concluded there are two main elements of SP’s that enhance the student learning experience, i.e. Realism and SPs’ attitude. “They are pretty good, no one really very excessive, scream to us. Some student may press too hard, some press less, they still ok with that, that the thing. They know we are still learning, so if we did mistake, they ok with it.” – EZ “When they go really like they are not even interested in listening to what we say, and then yawned, to me it was a thrown back lah.” – CRZ All participants observed that realism had influenced student learning journey. “I try it out in the actual clinic with the actual patient, for me kind of help like, I was just thinking about how do of history on someone, on the ah... SP, while I try it out on the actual patient, it kind of... it correlated” – EZ

### **Fairness**

Students expressed issues pertaining to fairness in three different aspects: an appropriate response to student, calibration of SP performance, and consistency of SP performance, in which impacted on the fairness for both classes and OSCE. “Some of them will give more thing to you, like the way ask, maybe they like, they give you more, but some of them, maybe they just like, they are like just stick to what you ask regardless of whether you are who, whatever you ask, they just answer A or B like that. Some will just go on A and then B without even you further asking. Let’s say I ask whether she have cough, then after she just say yes, but then some SP will ya, I been coughing for three days, and green colour phlegm or, but for another student, he might have to ask whether you have any phlegm? What colour is it?” – TPJ

### **Feedback from simulated patient**

The students commented on the SP feedback skills, in which focused on feedback on student social intelligence and skill. “Most of them just give me a lot of feedback, grateful, like improving my history taking and my examination all that. “Sometimes I might be taking too long, they kind of like ok, that been a bit uncomfortable, or I tap on my finger during percussion, I accidentally tap on them, they all like ok, just try, be more careful.” – EZ

### **Simulated patients**

Three themes revealed from the SPs group interviews, i.e. Effective learning session (coded the most), followed by Motivation and Preparation prior class.

### **Effective learning session**

SP’s expressed that students’ attitude influenced the effectiveness of the learning session. “They really treat us as real patient, like a few... when I did the depression one, when I did the stroke one, they really took me as a real... I mean they really treated me as a real patient, the way they talk to me, the way they look at me although they know me, ya, but they really make me feel like I am the real.” – MG Three out of six SP’s expressed that lecturers influenced on the SPs’ role as a real patient. “The lecturer was not really into the topic, so he was talking all the time, and sometimes not into the topic at all, so the SP and the students will be all the time listening to whatever he wanted to say, so that mean like even as a SP who come for the class, is like my time is



not been utilised in a very professional way, because the whole class would be like not a class at all, is something like is sharing session.” – TPY

### **Motivation**

SP's expressed that they felt motivated when showing respect and concern as well as provide feedback on their performance. “Sometimes they will tell you lah. Sometimes, even the external examiner also, when they come in, and they sit down, they watch you, when they go out, they will look at you, and say like that ah (thumb up) you will very happy.” – MG

### **Preparation prior class**

SP's appreciated clear instruction and role play as preparation prior to classes. “The lecturer will always tell us what to do, basically tell us our role lah, which is very good, so we don't just ah read the script, but the lecturer will also tell us and give us cues, if they ask you this question, then you answer this way, any script, the lecturer always prepare us ahead just in case, if they ask you like this, then you answer this, which is good. They always ask also; you know? If we have any question, and it is clear, do you understand, I think this are very good question that the lecturer asked at the end telling us, you know? Everybody understand? You know? I think this is very assurance at the same time, so if we so have any question, we just ask, to clear our mind before we go in and do our job.” – SZ

## **DISCUSSION**

The lecturers valued the SP's contribution if only the SP's are able to resemble a real patient during the simulation sessions, and demonstrated effective feedback skills. The lecturers considered the SP's who stay in-role and react appropriately toward the students' questions are the key to resemble a real patient during the simulation sessions and provided the learners a mindset of ‘they are dealing with simulated patient’, which related the learning with a real-life experience, therefore optimising the benefit for learners. Lecturers viewed SP's were in the most appropriate position to feedback student's performance in terms of how the patient felt being treated as the SP's had a direct encounter with the learners. The findings showed that the quality of feedback was a disparity among the SPs, but the results indicated more towards poor SP feedback skills as the content has clashed with the lecturers' feedback which focused more on medical content instead of patient's perspective.

The student's findings were similar to the lecturer group, i.e. Student perceived SP as an effective learning tool only if the SP were able to portray as a real patient during the simulation sessions and provided effective SP feedback. Moreover, standardisation of the SP role portrayal and SP feedback influenced the fairness along the students' journey. Students perceived that realistic portrayal of the role as appropriateness in responding to students, including both verbal and non-verbal responses. The students commented that no values were gained from non-specific and general feedback. An interesting message conveyed by the student group that SP feedback actually did not make sense for their learning until year two of study when the medical trainees started to be more aware of the purpose of SP-based teaching and learning session. Students perceived that non-standardisation and the inconsistency role portrayal as well as diverse in quality of SP feedback impacted the fairness along their journey.

The group of SP's expressed that lecturers, SP's as well as students influence a successful SP-based simulation session. SP's perceived that the lecturers should pay attention to the students' learning outcome and should fully utilise SP's for teaching based on students' learning outcome, including treat them as a real patient. Whereas, students who took the session seriously, prepared well before the classes, participate actively during the sessions and have a proactive attitude encouraged the realistic portrayal of the character. SP's perceived that by well-equipping themselves with the script and emotional and clinical signs, they are able to contribute to students' journey of learning.

### **Theoretical significance**

This study found that the interpersonal communication present in SP-based simulation sessions were varied. Prior to a teaching class, interpersonal communication was present more between SP and lecturer and less

among SP's. During class, interpersonal communication was present more between SP and student, less between lecturer and student, and little between SP and lecturer as well as among students. On the other hand, prior to OSCE, similar to classes, the interpersonal communication was present more between SP and lecturer and less among SP's. During OSCE, however, the interpersonal communication was present more between SP and student, less between SP and lecturer, and little between lecturer and student.

The research focused on system approaches which discovered the communication that took place among groups of interacting individuals. The assumptions of the system perspective explained the term of system, subsystem and supra-system. In this research, 'system' has been identified as a group of lecturer, student or SP's; 'subsystem' has been identified as the individual within the system; while 'supra-system' has been recognised as the SP programme.

### **Assumptions of system perspective**

Dainton and Zelly (2005) identified that 'system', 'subsystem' and 'supra-system' have mutual influence in macro approach (the larger social institution influenced a smaller group of individuals) and micro approach (the individual and interpersonal relationship between the individual able to influence the group as a whole). The SP's indicated that the macro approach was manifested when the group of students was playful and disrespectful towards the SP-learner encounter. As a result, the individual SP get disturbed and was unable to perform up to expectation. On the other hand, the participant group of students identified the micro approach. For example, when an SP had demonstrated seriousness in the encounter, he or she was able to influence students' learning attitude.

### **Concepts of system perspective: non-summativity**

Interdependence. Interdependence leads to non-summativity, which refers to the achievement of a group influenced through the achievement of an individual within a system. Participants from the SP group convey a strong message about interdependence. SP's viewed the success of the SP programme needs collaboration between the lecturer, learner and SP. The SP was not the only part of the key element for the achievement of the SP programme. It should include the lecturer as well as the learner. The systems had a role to play and influence each system and subsystem within the supra-system. Within the SP programme, lecturer, student and SP were tied together for the achievement of the programme; simultaneously each element influenced the achievement within the system itself. In other words, if one did not play their role well within the system, it will affect the outcome as a whole. Thus, the achievement of an individual determined the achievement of the system as well as the achievement of the supra-system.

### **Positive synergy**

The members in the system working together and creating better achievement than an individual member's achievement is regarded as positive synergy. Both lecturer and student group of participants recognised positive synergy present when an SP is able to resemble a real patient and able to provide constructive feedback. SP's who are well-prepared prior to the session, retain realistic portrayal skill and are able to demonstrate effective feedback skills, enhance the outcome of a simulation session and provide a great benefit toward students learning. Therefore, the purpose of an SP-based simulation session is to attain the success of a facilitator and students were able to maximise their learning experience. Meanwhile, SP only achieved the expected performance. The findings make sense of the concepts of positive synergy.

### **Negative synergy**

Negative synergy is defined as an individual who achieves more than the system as the whole achievement. Both groups of lecturer and student recognised negative synergy as the SP's were unable to realistically portray the character as well as have poor feedback skills. This is converse to the positive synergy concept. SP achieved more than an others-the lecturer and student because SP was able to practise their portrayal and feedback skill, while feedback for improvement will be given by the lecturer. Unfortunately, the session in which the students were supposed to enhance their learning by providing them the opportunity for SP-learner encounter did not attain the purpose. The facilitator was not able to pay full attention to the students' learning as they need to "watch out" for the SP's performance as well.

## Recommendation

Based on the findings of this study, improvement of the SP performance (authenticity of role portrayal and quality of SP feedback) as well as calibration of SP performance were highlighted. Hence, training is the key recommendation in this study. Firstly, training of role portrayal using the four-stage model which is helpful in improving the realistic portraying of a role as well as standardised SP performance. Secondly, training focus on enhancement in authenticity for role portrayal assist the SP's in creating a more realistic character. Lastly, training in giving quality SP feedback. The authors suggested that research on the effectiveness of the SP training, including both training for role portrayal and SP feedback training must be investigated and continuous improvement on the training is needed.

This research provided information to improve the SP programme in CSSC, IMU through the experience shared by the lecturers, students and SP's. The findings of the research were aimed to improve the teaching sessions and examination through the improvement of the SP programme. As reported, "Patient safety is a key dimension of quality in healthcare and should be given prime importance by the healthcare fraternity." (Ministry of Health, 2013). Newly graduated healthcare professional will be able to reduce the risk of negligence and malpractice if they are well trained and have adequate exposure to the environment that always adhere best practise especially when handling with a real human being rather than a mannequin. Subsequently, the students were able to make more sense on the integration of what was learned (knowledge), to what to do (skills), and how to do it correctly (attitude) when interacting with the SP's and getting feedback from them (William & Song, 2016; Wisborg et al, 2009; Gamble et al, 2016; Quail et al, 2016). Effective and appropriate SP-based simulation sessions provide the learners with a safe environment to practise and refine their skill before they enter the real clinical world (Williams & Song, 2016). Consequently, the quality of the SP-based simulation session influenced the quality of future healthcare practitioners who impact the quality of healthcare in Malaysia.

## Limitation

Due to the fact that this is the first comprehensive qualitative approach, the findings did not represent all types of SP programme in Malaysia or elsewhere. Thus, the researchers acknowledge that the research findings do not make for generalisation purposes.

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## **APPENDIX**

### **List of guide questions**

#### **Lecturer**

- Years of teaching using SP
- Tell me more about your role in this SP program? What is your experience about it?

#### *Positive*

1. What is your best experience with SP during training/briefing? How to make it better?
2. What is your best experience with SP during class? How to make it better?
3. What is your best experience with SP during OSCE? How to make it better?

#### *Negative*

1. What is your worst experience with SP during training/briefing? How to make it better?
2. What is your worst experience with SP during class? How to make it better?
3. What is your worst experience with SP during OSCE? How to make it better?

#### *Back-up question*

- How experience with SP program?
- How much do SP training contribute to student learning including prepare student to clinical school?
- Any comment on communication skills?
- Any comment on standardization of SP/training?

#### **Student**

- Years of study

#### *Positive*

1. What is your best experience with SP during class? How to make it better for learning?
2. What is your best experience with SP during OSCE? How to make it better for learning?

#### *Negative*

1. What is your worst experience with SP during class? How to make it better for learning?
2. What is your worst experience with SP during OSCE? How to make it better for learning?

#### *Back-up question*

- How do you feel when you were involved with SP?
- Knowing that SP is scripted, will it still help in your learning process?
- How you feel about repeated SP along your study with different script?

#### **SP**

- Years of being SP

#### *Positive*

1. What is your best experience with student during class? How to make it better?
2. What is your best experience with staff/SP coordinator? How to make it better?
3. What is your best experience with lecturer during class? How to make it better?
4. What is your best experience with lecturer during OSCE? How to make it better?

#### *Negative*

1. What is your worst experience with student during class? How to make it better?
2. What is your worst experience with staff/SP coordinator? How to make it better?
3. What is your worst experience with lecturer during class? How to make it better?
4. What is your worst experience with lecturer during OSCE? How to make it better?