



ORIGINAL

Role-playing in medical education: An experience from public role-players



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El juego de roles en la educación médica: una experiencia de actores públicos

Abstract

Objective: We aim to explore the lived experiences of public role-players from the aspects of benefits, barriers, and enablers of role-playing in a medical school in Malaysia.

Methods: A mixed-method study was performed involving 15 community dwellers who been engaged as role-players with Newcastle University Medicine in Malaysia. Participants answered a brief questionnaire followed by taking part in semi-structured interview. The interviews were audio-recorded, transcribed verbatim, and analyzed using thematic approach.

Results: 86.7% of the participants strongly agreed that they had better medical knowledge after participating. Seven themes emerged under the three categories of perceived benefits, challenges, and recommendations: understanding and medical knowledge, and practical application, other benefits of role-playing, emotional upheaval, understanding medical jargons, improving the role-playing quality, and translating the experience gained into the community setting.

Conclusion: The public role-players acknowledged their role positively and recognized refinement in their interpretation of medical knowledge and health. The public role-players were enthusiastic in using their knowledge acquired by upskilling themselves for community health programs and initiatives.

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PALABRAS CLAVE

comunicación;
comunidad;
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Educación médica

Resumen

Objetivo: Nuestro objetivo es explorar las experiencias vividas de los actores públicos desde los aspectos de los beneficios, las barreras y los facilitadores del juego de roles en una escuela de medicina en Malasia.

Material y Métodos: Se realizó un estudio de método mixto que involucró a 15 habitantes de la comunidad que participaron como actores en la Medicina de la Universidad de Newcastle en Malasia. Los participantes respondieron un breve cuestionario seguido de participar en debates de grupos focales semiestructurados. Las entrevistas fueron grabadas en audio, transcritas textualmente y analizadas con enfoque temático.

Resultados: el 86,7% de los participantes estuvo muy de acuerdo en que tenían mejores conocimientos médicos después de participar. Siete temas surgieron bajo las tres categorías de beneficios, desafíos y recomendaciones percibidos: comprensión y conocimiento médico, y aplicación práctica, otros beneficios del juego de roles, agitación emocional, comprensión de la jerga médica, mejora de la calidad del juego de roles y traducción de la experiencia. adquirido en el entorno comunitario.

Conclusión: Los actores públicos reconocieron positivamente su papel y reconocieron el refinamiento en su interpretación del conocimiento médico y de la salud. Los actores públicos se mostraron entusiastas al utilizar sus conocimientos adquiridos al mejorar sus habilidades para los programas e iniciativas de salud comunitaria.

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Introduction

In modern medicine, communication between doctors and patients plays a vital role while encountering day-to-day activities. Good communication skills create a foundation for proper patient care, which leads to better credibility and enhances patient empowerment. So, it is necessary to educate the medical student's basic communication skills instead of only focusing on the theoretical details of medicine.¹⁻³

The fundamental approach for educating and improving communication skills in medical faculties has been role-playing for many years.²⁻⁴ Role-playing is an educational method in which people are trained to assume specific roles in specific situations and interact with others in the simulation of real-life events.⁵ Any layperson, medical student, or a real patient may role-play the patient's role in real-life simulation studies. A simulation of a real-life situation without any restrictions by real patients plays a pivotal role when role-play is integrated into medical education.^{2,6} The layperson or public role-players usually do not have the conditions or illnesses that they act based on given script, but sometimes may have the same condition that they are tasked to role-play.

The medical students are increasingly trained using the role-players. The document for practical skills and procedures by General Medical Council outlines the minimum level of proficiency for newly qualified doctors to have a safe practice. The first level of competency determines whether safety is ensured for practicing in simulation.⁷ Role-players can be used by medical students to practice communication skills effectively. One of the learning outcomes offered in the 5th year of the Reproductive Health Assistantship at Newcastle University involves clear and sensible

communication. This enables the patient to decide about their care with empathy and compassion.

In Newcastle University Medicine, Malaysia (NUMed), the public role-players who are layperson in the community are engaged by the university to help with the undergraduate medical education (MBBS programme) year 1 to year 5. In terms of specialities, their roles cover medicine, surgery, mental health, primary care, women's health, and child health. They are extensively involved in delivering integrated clinical modules such as Essentials of Clinical Practice (EoCP) and Acute and Critical Care (ACC). Through those activities, their contributions help our students improve practical clinical skills, communication skills, and ethical competencies. Along with teaching, they play a significant role in the conduct of clinical assessments such as Objective Structured Clinical Examination (OSCE) and Multiple Observed Standardised Long Examination Records (MOSLER).

The benefits of being a role-player are understanding own emotional responses, improving communication skills, establishing a working relationship with professionals, and experiencing real-life situations in a safe environment, and getting a token of honorarium.⁸ To date, most of the published literature studied peer role-players whereby the students themselves take turn to act as patients in front of their peer in medical education and there was none that studied on non-peer role-players.⁹⁻¹² The present study is the first to explore the potential benefits and perspectives of non-student as role-players. Therefore, this study aims to delve into the benefits, barriers, and enablers in role-playing among public role-players involved with a medical school in Malaysia. We examined any well-studied factors that contributed to the benefits or satisfaction among the public role-players in role-playing.

Materials and Methods

Design

This was a mixed method study. The quantitative objectives were to describe the characteristics of the public role-players involved, and to determine the extent of benefits and satisfaction being involved in role-playing. The qualitative objectives were to expound on the types of benefits gained, the challenges and enablers arising from involvement as role-player, and to gain insight into how role-playing in medical education in the university can be improved.

For the quantitative part, the participants were asked to complete a Likert-score-based questionnaire on their levels of perceived benefits having been involved as a role-player with the NUMed. The phenomenological investigation was used as a qualitative part of the study to describe their lived experiences in the community.¹³

Study setting

This was a single centre study conducted in Johor Bahru, the southernmost city in Malaysia where the overseas campus of Newcastle University is nested.

Participants and recruitment

The participants are public are community dwellers living in Johor Bahru, Malaysia. They speak proficient English language which was the main medium of teaching in NUMed. They were introduced to the university through circle of friends and acquaintances. Some of them signed up after they came across the advertisement for role-player by the university. As most of them are lay persons, they have little, or none background medical knowledge. They were given induction training upon joining as role-player. Over the years the number grew to 33. A written invitation was sent to all of them to participate in the study on voluntary basis. Finally, 15 public members volunteered to participate in the study. All 15 participated in the questionnaire and interviews.

Data collection

The study was conducted between June to July 2022. The questionnaire was administered face-to-face. Besides improving response rates, this allowed the participants to clarify queries in the presence of interviewer. The participants took about 20 minutes to complete the questionnaire. There were four in-depth interviews (IDI), and five small group interviews made up of two to three participants each. Participants were first asked open-ended questions to keep them calm and at ease.^{13,14} The small number in each group allowed the participations to have easy discussions and gave them the opportunity to express their opinions and experiences. Each interview lasted for 27 to 70 minutes.

Data analysis

Descriptive analysis was performed on the quantitative data using IBM SPSS Statistics for Windows, version 28 (IBM Corp., Armonk, N.Y., USA). No inferential analysis was done. As for the qualitative data, inductive analysis was used. The interviews were first audio-recorded, and data were transcribed with exact original words. Transcripts were analyzed using a coding method known as the Steps for

Coding and Theorisation (SCAT) and themes were built from notable words or phrases.¹⁵ Thematic analyses were used until theme saturation was reached.

Ethics approval and consent to participate

The Newcastle University Ethics Committee (Ref: 23290/2022) approved the study. The information sheet of the study was read by all participants, and they gave written consent to participate through email correspondence. The participants also gave consent for the audio recording of the interviews. It was voluntary participation, and no rewards or incentives were given to any of them.

Results

A total of 15 public role-players took part in the interview. Males comprised 43% and females were 57% of all the participants. The mean age of the participants (31 to 72 years old) was 54.8. The role-players involved in this role from as less as three months to as long as nine years. They stayed in a residential with a mean distance of 15.9 kilometers from the university campus. 87% of the role-players were involved in all stages (year 1 to 5) of the undergraduate medicine program of medical school. Two role-players were involved in clinical stage (year 3 to 5) of undergraduate medical teaching. Table 1 enlists the demographics of the participants.

On a 5-point-Likert scale, 86.7% of them strongly agreed that their medical knowledge improved after role-playing. The remaining 13.3% agreed to have better medical knowledge. More than half (53.3%) practice lifestyle changes as usual and most of the time after participating in role-playing.

Table 1 Characteristics of participants.

Age (yr)	Number (%)
31-40	3 (20)
41-50	3 (20)
51-60	1 (6.7)
61-70	6 (40)
71 and above	2 (13.3)
Gender	
Female	8 (53.3)
Male	7 (46.7)
Working status	
Retired	6 (40)
Not working	3 (20)
Full-time working	3 (20)
Part-time working	3 (20)
Years as role-player	
Less than 2 years	4 (26.7)
2 to less than 4 years	1 (6.7)
4 to less than 6 years	2 (13.3)
6 and above	8 (53.3)
Residential distance from university (kilometre)	
1 to 9.9	5 (33.3)
10 to 19.9	5 (33.3)
20 to 29.9	2 (13.3)
30 and above	2 (13.3)

Table 2 Emerging themes identified through the focus group discussions.

Categories	Themes
Perceived benefits	Understanding and medical knowledge Practical application Other benefits of role-playing
Challenges	Emotional upheaval Understanding medical jargons
Recommendations	Improving the role-playing quality Translating the experience gained into the community setting

Overall, two-thirds of them were very content to be role-players and one-third were happy to play the role. Most role-players find mental health the most difficult specialty of role-playing, followed by ethics and communications. The role-players had an emotional effect after the mental health sessions. Table 2 summarizes the emerging themes from the focus group discussions.

Perceived benefits from role-playing

There were several positive outcomes to the role-players as a result from involvement in the medical education with the university. These included and not limited to acquisition of general medical knowledge, change of lifestyle, sense of accomplishment, and financial reward.

Understanding and medical knowledge

Most participants reported improvements in general medical knowledge, particularly presentation and diagnosis. They also reported gaining knowledge while they responded.

"Previously, I had no idea about any of the disease, how it was diagnosed and what healthcare do we look for. But now I have quite good understanding about it"- Participant no. 4

"More of the learning comes from face-to-face interaction with the students...Learning was more reinforced by acting upon it."- Participant no. 1

Participants also reported increased awareness of specific diseases and conditions.

"I may not have the disease, but it is something I can be aware of or prevent it from happening to us"- Participant no. 3

Although there was a repetition of the same script by the role-players in a session, still they could have more insight from student encounters and interactions with the lecturers.

"So, each and every time, even though the script is same, and I have to repeat it, but the way the students give me their feedback, or their understanding is quite different"-Participant no. 12

Practical application

The knowledge gained by role-players was translated into practical applications in everyday life. Many people report

being more physically active and eating a healthier diet. One health-conscious role-player mentioned that acquiring such knowledge helped her and her family members cultivate habitual healthy lifestyles.

"Compared to previously, now I am eating more healthily and regularly exercise" -Participant no. 4

"Yes, my entire family, we really focused on health. We understand the benefit of living and focusing on health, the wellness side of it. But what I would say the plus point of being a role-player over here is the cultivation"-Participant no. 5

"It is useful for us so we can follow a healthier lifestyle in terms of diet, exercise, rest especially for age-related like cardiovascular kind of diseases, hypertension, diabetes. It is applicable to us. We gain medical knowledge and can apply it to our daily lives."-Participant no. 14

Some new ideas gained from the role-playing encounters were further investigated and observed to be helpful in a role-player who had systemic lupus erythematosus and arthritis.

"They would say things like put your hand in the hot water or exercise in the morning. I did try them and found them useful." -Participant no. 2

Several role-players mentioned providing appropriate counseling to the family and friends who shared certain symptoms. Most of the advice was helpful and certain diseases could be diagnosed early.

"Luckily, I told the surgeon that my mum is on blood-thinner, and it did turn out that my mum was anemic, and the operation was postponed."-Participant no. 6

Other benefits of role-playing

There was a sense of accomplishment observed in role-players for their contribution in role-playing.

"We feel that we are contributing to the wellbeing of the medical students in NUMed and secondly is that we are playing a vital role in terms of improving the medical knowledge of the students" -Participant no. 3

The examination for the students necessitates several role-players taking part as standardized patients. So, this role-playing is often considered as a happy gathering along with catching up with one another.

"I came to know Y here... As I am retired, this is my priority so whenever the university calls, we are most happy to come." - Participant no. 1

"I enjoyed it. I met a lot of friends and people. It is simply good to be in a university setting and meet a lot of people." - Participant no. 9

Role-players receive a token of honorarium dependent on the amount of time spent role-playing for the month because their engagement is not fixed, consistent employment. The majority have spent the honorarium on meals, supplements, and other expenses even though they believe it is not a significant financial gain. Few role-players were grateful for the honorarium because it was substantial to them.

"It's a plus and bonus. I just use when necessary"- Participant no. 8

"My husband is a church worker, he works in an NGO, so we do not earn much. So, for me this is a significant contribution whenever I work in Numed. This supports us, right now I am taking care of our elderly parents." - Participant no. 9

Challenges

There were several challenges highlighted by the role-players in undertaking the task of role-playing. Among these included preparation, executing the role, and reflection after the teaching session.

In mental health modules, one of the biggest difficulties is the emotional upheaval that follows playing a role that corresponds to the scenario. After acting as an aggressive or irate patient in front of the medical students, the role-players feel guilty. Some of the role-players made preparations for the part while not having the sickness themselves, just like actors do.

"Some roles especially the mental health stations can be very challenging you know. I can get very emotional when acting it out...and I just get really influenced by the role I play." - Participant no. 15

"I need to have a fair understanding of, for example, schizophrenia. Initially, when I started doing mental health, I had no idea about mental health. I started reading watched some videos on how a schizophrenia patients behave. By doing so I get an idea as to how I should act in front of the students." - Participant no. 13

There was less difficulty in understanding medical terms and jargon by role-players due to the era of the digital world. Although some described memorizing the scripts as a challenge, it got better with repetitions. In addition to retaining the content, role-players had to use wisdom and judgment to withhold or reveal certain information to their students.

"Because I have interest in medicine. I will Googled up ahead the items that I do not understand." - Participant no. 8

"For me, it is remembering the script. But once you've been a RP for some time, the flow is there, and the information tends to come more naturally"-Participant no. 3

"We have to remember a lot of things because sometimes the script is quite long, we need to remember the history and at the same time, you also need to know what needs to be revealed and what needs to be kept until the student asked it" - Participant no. 9

Most participants did not perceive distance as a role-player to be a negative effect. One of the participants shared her motivation of not considering distance as a barrier even if she stays 31 kms from the university campus.

"Still not a hindrance, we will still put this as our priority and come"- Participant no. 1

The passion for medical education has also been a motivation for many participants as stated by them.

"We enjoy helping out in medical education, so we just accept the challenges." - Participant no. 15

"It is a sense of fulfilment contributing to the students" - Participant no. 4

Recommendations

During the interview, the role-players were also asked if they have any suggestion to improve the role-playing delivery to the medical undergraduates. Based on their lived experiences, they were also asked about their interest and readiness to organise health events that may benefit the local community.

Improving the role-playing quality

A significant number of role-players suggested that more training and briefings could be arranged to a clearer picture of what is expected of them as role-players.

"I would suggest if you wanted the students to be challenged further, a brief discussion before the session will help. It can be via zoom call and the doctors can give us some pointers on what they would like us to ask to make it more challenging for the students." - Participant no. 12

"Occasionally, the university might like to organize certain days in which all role-players attend with pre-recorded versions of role-playing for specific scenarios. By assembling us in a room and projecting the role-players part and students' part, we can observe how they behave." - Participant no. 8

There was a harmonious agreement for getting regular feedback after each session to help them in understanding their performances. It will help identify the steps to be taken for further improvements for a better medical education.

"Maybe you can take our video and evaluate us to let us know what we did wrong. If not, we just do what we do and don't know where the mistake is. At least if we improve ourselves, it could be better." - Participant no. 6

"It will be good if after exams, the staff can give us feedback. It does not have to be individual, maybe you can summarize all the performances of the role-players. For example, what were the role-players' weaknesses and strong points." - Participant no. 14

Translating the experience gained into the community setting

A few mentioned reaching out for community awareness by sharing their knowledge and experience about different medical conditions when asked about role-playing being translated into a bigger scale. This can be arranged by organizing or participating in campaigns. Even with this new knowledge gained, it does not replace the medical knowledge or advice of a trained healthcare professional, which is also a limitation.

"We can help if there is any campaign being organized. We can only help to create a bit of awareness, but we can't say much because we do not have much medical knowledge." - Participant no. 1

There is a greater benefit for the community when the role-players gain knowledge on certain medical conditions, join or create groups, and contribute what they have learned. These groups have the advantage for creating a platform or a resource for people with similar medical conditions to share their knowledge and support each other.

"For me, as I have SLE, I helped start the SLE club with a doctor. We encourage all those with SLE to come and attend and share about their disease to bring more awareness to it." - Participant no. 2

"I am currently in a lymphoma group. I am not a doctor, and I cannot advise much as I might say the wrong thing, but it has helped create awareness of the condition." - Participant no.

Some role-players also explained that they can utilize this learning and share the information among their family and friends to advise them.

"We can ask them if they have considered getting advice from a doctor for certain symptoms they are experiencing. For example, if someone tells me they have hand tenderness, I can advise them to consult a doctor as it might be some nerve problem." - Participant no. 1

"On a much smaller scale, like within my family, if I know there are ways my knowledge can help, I definitely will. My aunty in India, she kept getting this stomach-ache. I asked her which part of the stomach the pain was at and based on the location, I told her she might want to get it checked out as it might be gallstones. She did go to the doctor, got a scan done and found out she did indeed have a gallbladder stone." - Participant no. 12

Discussion

The present study was the first one to evaluate the role-play in medical education from the public's viewpoint, as best known to us. Unlike studies on peer role-players, our public role-players did not report any improvement in communication skills as they are working or retired adults in the society as compared to being an undergraduate such as the peer role-players.^{8,9,16}

The participants reported an increase in medical knowledge and awareness now than they did before. They gained more knowledge about the clinical manifestations and etiology of diseases across the main disciplines through the practice sessions. Some noted that they (and their families) had adopted better lifestyles in terms of exercise and food, and underwent recommended medical tests, which were also translated into their daily practice.

The public role-players were compensated just like the simulated patients.¹⁷ For retired people, the token of honorarium can be substantial. However, most participants mentioned that the primary benefit they received from role-playing was not the monetary reward.

There was a positive outcome while discussing on the preparation of the role-plays among the participants.

The scripts and situations were usually sent beforehand to the public role-players ahead of the sessions with the medical students.¹⁸ Most of the participants performed their best, mirroring real-life situations in the medical training and simulation sessions.

Memorizing the script wasn't a challenge to most of the participants.¹² Also, the public role-players searched the medical terminologies on the Google database and confirmed with the lecturers in the pre-teaching or briefing sessions, even if they were not familiar with the medical jargon. This is in contrast to medical teaching by using peer role-players where the students come without any preparation and take turns in playing the role of a patient, as they would be busy with clinical attachments, assignments, and readings to catch up with. The learning outcomes can be delivered better if there is a detailed portrayal on the background of the subjects, especially while teaching about sensitive encounters such as misuse of drugs and alcohol, domestic violence, mental health issues, and sexual health.^{5,18}

Mental health discipline for role-playing was found to be the most difficult one by public role-players. This corresponds with positive reviews in the literature and has been found to gain confidence, more engaging, and increase empathy.¹⁹ There is also a downside to the situation, even if emotional vibes rise up by role-playing to meet the desired purpose.^{5,6} The after-effects of emotional excitement can be felt by the role-players who become too preoccupied with their role. This also confirms the findings that role-play can modify the attitudes of the role-players.²⁰ However, this is crucial as the learners will be able to cope with anxiety, fear, and doubts, and gain more confidence for working with people with several mental health issues.^{21,22}

The newly recruited role-players also suggested training for the role-players by the academic staffs so that they understand the scopes and limitations of the role-play. The experienced public role-players were also interested in improving their quality of role-playing despite being familiar with it to ensure maximum benefits. Some also suggested to pair up the role-players while teaching so as to observe the interaction of other role-players with the students. While some more suggestions included watching video recordings of consultations in sessions where the role-players can observe and learn the emotional expressions and tonal language of the role-player or the patients.¹⁸

It is encouraging to know that public role-players are constantly seeking to enhance their soft skills in role-playing. Motivating factors include passion and satisfaction of having made a significant contribution to the medical profession in shaping good doctors for the greater benefit of the community. Health promotion strategies can be empowered by the knowledge gained and skills learned in the community.²³ Although most participants were comfortable to give simple advice to their family members, yet they felt reserved when asked to lead or organize a community health program. This may be due to the lack of a formal education in healthcare which cannot be substituted with knowledge learned from role-playing. A handful of the participants showed their willingness to be involved in future campaigns for promoting awareness on community health organized by the university.

The present study has fewer limitations. Less than half of the university public role-players only participated in the present study. This cohort of participants hails from the city of Johor (Malaysia's southernmost state) and may not be typical of the rest of the region. However, the best intentions could be achieved by successive focus group discussions till thematic saturation is reached. Similar to past research that used interviews as a tool, the information obtained was filtered through the perspectives of participants. The responses of the participants may also be influenced by the presence of the investigator during the interview.¹³ Finally, discussions were held in smaller groups as all participants did not express themselves clearly and equally.

The experience shared by the role-players implied high level of commitment and preparation done before helping out with the teaching sessions. The role-players were also keen to improve their skills through re-learning and evaluations so that the quality of teaching sessions delivered can be improve for the learning of medical students.

In conclusion, the public role-players acknowledged the role and greatly enhanced their knowledge and understanding of medical conditions. Even if there is a lesser practical application, still some of them feel assertive to be the 'healthcare advocate' to the members of their family and friends. Some mention that passion and commitment motivate them to efficiently participate and not perceive challenges as barriers. The public role-players were interested in utilizing their knowledge gained and contributing themselves for community health programs and engagements.

Ethical approval

The ethical approval was granted by the Newcastle University Ethics Committee. (Ref: 23290/2022)

Informed consent

Informed consent has been obtained from the participants prior to being involved in the study.

Author statement

This article has not been published or presented elsewhere.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.edumed.2022.100767>.

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