

PERSPECTIVE OF JUNIOR RESIDENTS ON THE ROLE OF CHIEF RESIDENT AS A TEACHER IN OBSTETRICS AND GYNECOLOGY DEPARTMENT, UNIVERSITAS INDONESIA

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ABSTRACT

Objective: Resident juniors are often exposed and taught by the Chief Residents in daily routines. However, there are no data regarding the quality of senior residents as teachers. We conducted a questionnaire-based evaluation to determine the quality of Chief Residents from a junior resident's perspective.

Methods: This study was conducted from May to July 2019 in the Department of Obstetrics and Gynecology. Fifteen questions regarding the quality of chief residents as teachers, which consist of a safe learning environment, team working, coaching by demonstration and observation, stimulating learning and role modeling from junior's perspective and one open question for suggestions were given using the Google Form internet-based application. Data were analyzed using Ms. Excel.

Results: 75 junior residents (100%) participated in this study. Ten out of 15 questions were answered and agreed that the chief resident had qualifications as a teacher (88%). The most valued performances were the ability in selecting patients to the junior based on their level of competency and allowing them to do procedures (92%), while the most undervalued was chief resident's ability to teach as good as their consultant (45%).

Conclusion: Our study showed that most of the junior residents agreed that the presence of their senior is compulsory to their learning experience. Learning from seniors, including the consultant, will make a better learning environment.

Keywords: Residency training, Evaluation, Teaching skill, Resident as a teacher, Medical education

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INTRODUCTION

Medicine is a field that requires broad knowledge and skills, which must be gradually practiced and nurtured from preclinical to clinical settings. The word Doctor itself comes from the Latin root, *Docere*, meaning to teach. Teaching itself is indeed an integrated part of this field. In the clinical setting, the transfer of knowledge and clinical skills are transferred by the chief or senior residents to their juniors. Therefore, the chief or senior residents are required to have a good, effective way of teachings and a good communicator for their junior.

In a systematic literature review conducted by Hill *et al*, it was found that residents have a desire to teach and they responded positively to formal teaching training as teachers since the 1970s in the United States [1]. In almost all medical disciplines, residents are obliged to become clinical teachers for junior residents and medical students [2].

There are various interventions for residents in preparing their role as teachers, such as workshops, seminars, lectures, and special courses. In our curriculum, our residents have been taught how to teach their juniors effectively since their third year. The training is called as "Resident as a Teacher" or RaT based on Clinical Training Skills for Reproductive Health Professionals, given to residents before becoming Chief Resident [3]. The program is designated in a Clinical Teaching Skills Module (CTS) for one month. Effective clinical training is designed and implemented according to adult learning principles-participatory learning, relevant, practical and uses behavioral models-based on competence, and includes humanistic training techniques.

Even though we have been conducting a training program called Resident as a Teacher every year, there is no evaluation on how this program has impacted the juniors. This descriptive study aims to know the quality of the chief resident's role in RaT from the perspective of the junior residents.

MATERIALS AND METHODS

A descriptive study was conducted from May to June 2019 to determine the perception of junior residents of the Chief Resident role as a teacher. We developed a questionnaire based on Montacute *et al*'s study, which consists of 15 questions about safe learning environment, team working, coaching by demonstration and observation, stimulating learning and role modeling from junior's perspective and one open question for the suggestion. The questionnaire was given using the Google Form internet-based application [4].

All residents from first to the third year of the Department of Obstetrics and Gynecology in Faculty of Medicine, Universitas Indonesia participated in this study. Informed consent was obtained from all of the participant. All data was input and analyzed using Microsoft Excel 2016.

RESULTS

A total of seventy-five juniors, 17 from the first-year, 21 from the second-year and 37 from the third-year obstetrics and gynecology residents filled out the questionnaire. The questionnaire was categorized into 8 domains and 15 sub-questions, which each one of them representing a performance-based evaluation from junior's perspective (table 1). The juniors also given a chance to write down their opinion for a better learning environment in a paper.

Chief and senior residents were able to create a conducive teaching environment (>80%) and give feedback to their juniors (80%) in order to stimulate their juniors (Question 1 to 3). Although the chief could allocate patients based on their junior's level of competency, but the juniors (17%) felt that their seniors could not manage enough time for the teaching (Question 4 and 5). Juniors felt that their seniors could stimulate (Question 6 and 7), demonstrate (Question 9 to 11), and lead their juniors (Question 12) in daily practice (>70%). Despite of having extensive knowledge, the juniors prefer their teaching staffs to their seniors when it comes to transferring knowledge (Question 13 to 15).

Table 1: Result of the questionnaire from 75 residents from May-July 2019

Domain	No	Questions	Agree N (%)	Abstain N (%)	Disagree N (%)
Teaching Environment	1	The chief resident is able to create a secured atmosphere for the junior resident to admit their limitations. The chief resident is very careful, approachable, enthusiastic, encouraging, and supportive for learning.	64 (85)	8 (11)	3 (4)
	2	Junior residents feel that they are respected team members, of which their opinion is adequately considered. Junior residents are given autonomy based on their level of experience.	65 (87)	6 (8)	4 (5)
Feedback	3	Chief residents provides useful feedback during or immediately after direct observation of junior resident activities. Chief residents adjust their teaching methods to the level of junior resident's experience.	60 (80)	11 (15)	4 (5)
Preparation	4	Chief residents can allocate the patient and plan the learning map based on the junior's potential.	69 (92)	4 (5)	2 (3)
	5	Chief residents can identify the time to teach and make it a priority.	45 (60)	17 (23)	13 (17)
Learning Stimulation	6	Chief residents ask junior residents to rationalize their actions and takes time to explain the reasons for management decisions.	58 (77)	11 (15)	6 (8)
	7	Chief residents ask questions to the junior residents to increase their understanding and stimulate junior residents to explore their weaknesses and strengths.	66 (88)	7 (9)	2 (3)
Role modeling	8	Chief residents can serve as a role model for the kind of doctor the junior residents would like to become	51 (68)	19 (25)	5 (7)
Demonstration	9	Chief residents consistently show how to perform clinical skills and creates enough opportunities for junior residents to observe.	61 (81)	10 (13)	4 (5)
	10	Chief resident present their teaching in a systematic and well-organized manner.	54 (72)	15 (20)	6 (8)
	11	Chief residents allow junior residents to participate in the procedure, if it matches the level of competence.	69 (92)	2 (3)	4 (5)
Leadership	12	The chief resident shows strong leadership skills (organizes, directs new team members, prioritizes daily tasks, asks for feedback from junior residents)	60 (80)	11 (15)	4 (5)
Knowledge	13	The chief resident has extensive knowledge and has sufficient skills to teach.	61 (81)	9 (12)	5 (7)
	14	What is taught by the chief resident is very appropriate and applicable in the daily activities of the resident.	65 (87)	6 (8)	4 (5)
	15	Learning from the chief resident is as good as learning from the teaching staff.	34 (45)	17 (23)	24 (32)

Of 8 domains, the teaching environment, feedback and leadership domain were the most highly valued by the juniors, compromising a high level of satisfaction in every sub-question given (>80% of each question). The role model domain was the most undervalued (68%). Of 15 sub-questions, the time management (60%) and teaching comparison to their teaching staffs (45%) are the most undervalued.

Six of the juniors wrote down their opinion for a better learning experience. Most of the opinions were making a small group with an allocated and dedicated from their first year of residency. The teaching staffs' role was also needed by their juniors alongside the senior's teaching program.

DISCUSSION

Resident-as-Teacher (RaT) is an important program that benefits both senior and junior residents. For the seniors, they can recall what they had learnt and to evaluate their knowledge, as to teach is to learn twice [5]. For their juniors, they are benefited as they are taught in different settings such as bedside skills rather than factual knowledge, and different time such as on-call time. As Snell *et al.* stated that senior residents might spend up to one-fourth of supervising and evaluating their juniors, as well as the juniors, learn up to one-third of their clinical knowledge from their seniors [6].

Of 15 sub-questions from 8 domains, the most appreciated values were "allocation of the patient based on their competency", and "allowed to do the procedures based on their competency". This findings were similar to Montacute *et al.*'s findings [4]. Both of these sub-questions comes from daily activity practice, which is congruent with other studies that stated near-peer learning is the most anticipated way of transferring knowledge by the juniors [7].

The juniors also felt secured when they have their senior/chief residents nearby, as stated by high percentage of agreement in creating a good teaching environment by being careful, approachable, enthusiastic, encouraging, and supportive seniors (85%). The presence of seniors made the juniors confident in doing their job, this is confirmed by the high percentage of agreement in question 1. This supports Montacute *et al.*'s finding that most of the resident testified that the learning environment is the most important factor [4].

The juniors also agreed that learning from their seniors gives them a better learning experience because the cases given to them are based on their level of competency (Question 2) and they are given constructive feedback in every decisions and procedure afterward (question 3,6,7). This aspect, according to Hashimoto *et al.*, is very important to tailor their learning and address their limitation in clinical skills, eliminating the time-consuming traditional curriculum. This also results in better autonomy and confidence in their juniors [8].

Bulte *et al.* stated that a shorter cognitive distance between teachers and learners helps the teachers to better understand learner's challenges and explain difficult concepts in a better way [9]. This is according to what we found in junior residents that they agreed and satisfied to what they had learned from their senior (question 9, 10, 13, 14). Sutkin *et al.* stated five cores to be an effective clinical teacher; they are: medical knowledge, clinical skills, positive relationships with students in a supportive learning environment, communication skills and enthusiasm [10]. From this study, we can conclude that our junior residents think that our senior residents have the necessary skills to be an effective clinical teacher.

The RaT program has become a system worldwide, especially those who are in surgical fields [11]. Technical aspects, such as the introduction of a surgical procedure (use of instruments, surgical field exposure, surgical techniques, etc.) are transferred by the seniors [12]. Despite the benefits of the RaT program, senior residents also hold burdens from their daily activities, including the responsibilities of all their juniors, all of the patients including those in the polyclinic, ward, and operating theatre. These overwhelming tasks sometimes make the teaching session is hard to establish. This is consistent with the junior's responses in Question 5. This also make the juniors agreed that tutorials from the teaching staffs is compulsory, despite of the extensive knowledge the seniors have gotten (Question 14 and 15). Universitas Indonesia's teaching hospitals are the national referral hospitals; therefore, the complexity of the cases is highly expected and sometimes beyond the competency of general obstetrics and gynecology specialists. Those cases cannot be solved solely by the chief residents; they require expertise and management from the teaching staffs. This

might contribute to our finding that 55% of the participant preferred learning from teaching staff to chief residents. This supports Sutkin *et al.*'s statement that the resident job as a teacher is not a substitute but a complement to them in education systems [10].

The limitations of this study include the bias that could be made during questionnaire filling. The questionnaire was not asked in a designated time and some of the residents may have answered hastily. Instrument validation is often limited in assessing internal consistency and reliability. Existing instruments in assessing clinical instructors must be carefully reviewed especially if they have consequences. Cornelia *et al.* in their review, also evaluated 32 instruments for assessing the quality of clinical teachers stating that no instruments were covering all relevant aspects of clinical teaching comprehensively [13]. Moreover, the Asians' culture to respect the seniors and to value other people's effort to help may result in subjectivity bias by giving satisfactory answers while filling the questionnaire. This study also does not include the seniors and the chief's perspective. Further study is still needed to complement this study.

CONCLUSION

This study shows that RaT program results in prepared senior and chief residents to accommodate a safe and conducive learning environment. The Resident-as-Teacher program is compulsory and complementary to the medical education system, especially in skill extensive education programs including Obstetrics and Gynecology.

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Concept: Hariyono Winarto, Caroline Setiawan, Design: Hariyono Winarto, Tricia D. Anggraeni, Data Collection or Processing: Hariyono Winarto, Caroline Setiawan, Tricia D. Anggraeni, Kartiwa H. Nuryanto, Fitriyadi Kusuma, Analysis or Interpretation: Hariyono Winarto, Caroline Setiawan, Kartiwa H. Nuryanto, Literature Search: Hariyono Winarto, Caroline Setiawan, Writing: Hariyono Winarto, Fitriyadi Kusuma

CONFLICTS OF INTERESTS

Authors have none to declare.

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