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Challenges faced by chief residents: difficulties and achievements of this role in a community teaching hospital

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ABSTRACT

Introduction. The chief resident plays a strategic role in terms of leadership and cohesion among residents.

Objective. To characterize the activities developed by chief residents and identify their achievements and difficulties.

Methods. A survey about demographic outcome measures, activities performed, most and least gratifying situations, and training needs was completed.

Results. In total, 88 % of chief residents completed the survey; 46 % were females. Activities were related to health care (26 %), academic management (25 %), teaching (24 %), administration (16 %), and research (10 %). The most gratifying situation was playing a teaching role, and the least gratifying one were difficulties in the management of interpersonal relations. A lack of training was recognized by 57 %, whereas 95 % would recommend becoming a chief resident.

Conclusion. The most gratifying situation was playing a teaching role, and the least gratifying one were difficulties in the management of interpersonal relations.

Key words: *medical education, leadership, internship and residency, postgraduate education.*

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INTRODUCTION

The residency system for health care providers consists in postgraduate training during service with scheduled, supervised activities that allow trainee providers to acquire the necessary skills; therefore, this is the main postgraduate education system during service in the health care area.[1] As part of the program, there is a chief resident (CR) who acts as the main role model and liaison between residents and those responsible for their education.

The CR is chosen among the residents who complete the residency program. There are different ways to select a CR, with more or less participation of the group of residents, depending on each program. The CR role is highly valued and perceived as a recognition. They carry out their tasks for a year under the same exclusive dedication system as residents. They organize and coordinate residents' tasks, become involved in their assessment, and provide support and mentoring.[3]

They are the main reference to guide learning processes and play a strategic role in terms of leadership and cohesion among residents. Their role is complex and dual because they have to coordinate both health care and academic management activities in relation to the residency program. They usually face professional challenges that also allow them to better develop as specialists.[4]

It is known that being a CR for a year is perceived as a very formative experience for those who do it[1] and also that its value has changed over recent years since the CR position has reached new generations ruled by different paradigms and expectations, in both professional and personal terms.[5-7]

Different regulations pertain to CR selection and activities, such as Ordinance 40997/86, as amended (Ordinance 51475/97 and Law 601) for residency programs in the Autonomous City of Buenos Aires. However, each residency program

and each facility have a different culture that establishes CR functions and affects its dynamics and the activities performed.

Not many studies have described the reality of the year acting as CR in our setting. For this reason, the objective of this study was to characterize the activities performed by CRs and identify, based on their own perceptions, the main achievements and difficulties of the CR role in a community teaching hospital.

MATERIAL AND METHOD

The studied population included all CRs of Hospital Italiano de Buenos Aires who finished their position as CR in 2017. They were included by convenience sampling through an invitation to complete an electronic, confidential survey. Two reminders were sent with a one-week interval.

A semi-structured survey was developed. Its content validity was established by a group made up of a physician and two Bachelors of Science in Education, with experience in medical education, who reviewed the bibliography. Adjustments were made after verifying the apparent validity by means of interviews with a group of four former CRs. No reliability tests were done.

The following outcome measures were defined: age, sex, specialty, number of CRs and residents in each program, percentage of time to perform tasks (teaching, academic management, health care activities, research), support from the heads of the program, support from the heads of the institution, description of the selection system, description of the most and least gratifying situations, perception regarding the need for prior training, and recommendation to a colleague to become a CR (*Annex*).

The *general medicine specialty* was defined as residency programs in general medicine, family medicine, pediatrics, cardiology, endocrinology, gastroenterology, neurology, nephrology, dermatology, and intensive care; the *surgery specialty* corresponded to general surgery, otolaryngology, urology, ophthalmology, pediatric surgery, neurosurgery, traumatology and orthopedics, obstetrics and gynecology; and *other* referred to psychiatry, psychology, pharmacy, speech therapy, imaging tests, medical informatics, radiotherapy, anatomic pathology, critical care nursing, and neonatal nursing.

Ethical considerations: Result confidentiality was ensured, and the study was assessed and approved by the hospital's Ethics Committee for Research Protocols (number 4088).

Statistical analysis: Categorical outcome measures were described as absolute value and percentage, while continuous outcome measures, as mean and standard deviation. Qualitative outcome measures were grouped into categories after the Bachelor of Science in Education and the physician with experience in education triangulated data from the open-ended questions until the categories were saturated. Quantitative outcome measures were processed with the StataCorp 2015 statistical software, Stata Statistical Software: Release 14; CollegeStation, TX: StataCorp LP.

RESULTS

The survey was completed by 37 out of 42 CRs (88 %). Of them, 46 % were females; their mean age was 31 ± 3.1 years. *Table 1* describes the characteristics of CRs and the type of activities performed by them.

The system used to select CRs varied but the director of the residency program was always involved in the decision-making process (*Table 2*). Situations perceived as most and least gratifying were grouped into different categories, as described in *Tables 3 and 4*.

In total, 57 % admitted a lack of training; in turn, CR training needs were grouped into the following categories: 1) Group management and leadership (n: 19; 51 %): "Going from being a peer to a CR is something you learn on the go". "Guidelines to prevent yourself from becoming a dictator". 2) Teaching skills (n: 6; 16 %): "Skills to provide productive feedback". 3) Knowledge of rights and obligations (n: 4; 11 %): "Authorizations and how to grant or deny specific requests made by each resident".

Ninety-five percent would recommend becoming a CR to their colleagues, and the 2 CRs who said they would not indicated that the reason was the resistance to change in the education system: "Strong resistance to change and initiatives, even if they are aimed at improving services and the quality of patient care". Among those who said they would, the following categories were observed: 1) Professional growth (n: 15; 45 %): "I believe it is a year that allows you to continue reinforcing your knowledge and, at the same time, learn about administration and people management. In turn, it is a huge responsibility and that, undoubtedly, makes you grow as a professional". 2) Development of a teaching role (n: 8; 24 %): "I had the chance to participate in the training of residents who will become excellent pediatricians; that is something

I am proud of and that I will never forget". "You learn alongside them". 3) Leadership and group management (n: 7; 21 %): "This experience teaches you how to deal with groups and play a leading role". 4) Personal growth (n: 4; 12 %): "It helps you to get to know yourself and put yourself in somebody else's shoes". 5) Possibility of making changes (n: 2; 6 %).

DISCUSSION

This study evidenced that most CRs valued the experience and recommended others to become CRs considering the positive overall perspective regarding the role performed during the concerned period. In addition, CRs realized what they had learned in relation to academic and learning group management. They also pointed out their personal growth.

However, surveyed CRs referred that they had little time for research activities and had to devote a lot of time to health care activities and administrative tasks. No national studies have been done in relation to the performance of the CR role. However, their function is undeniable and essential for the adequate daily operation of residency teams,[1,8] especially because they are immersed in such a complex structure as a teaching hospital. Therefore, the CR role is of interest for teaching teams, mainly to understand their relevance as part of this formative device

TABLE 2. *System used to select a chief resident (n = 37)*

Individuals responsible for selection	Number (n)	Percentage (%)
Program director and staff providers	12	32
Program director, staff providers, and residents	9	24
Program director	4	11
Program director and residents	3	8
Single resident per year	1	3
Does not know	8	22

TABLE 1. *Characteristics and activities performed by chief residents (n = 37)*

Studied outcome measure	Number (n)	Percentage (%)	Mean (SD)
Sex			
Female	17	46	
Male	20	54	
Age (years)			31 (± 3.1)
Specialty			
General medicine	13	35	
Surgery	13	35	
Other	11	30	
Roles involved in the residency program			
Chief residents	37		
Health care providers with teaching roles	118		
Residents	471		
Distribution of CR tasks			
Health care activities	10	26	
Academic management	9	24	
Teaching	9	24	
Administration	6	16	
Research	4	10	
Support from heads of the program			
Yes	31	84	
No	6	16	
Support from heads of the institution			
Yes	18	49	
No	19	51	
Training need			
Yes	21	57	
No	16	43	
Recommends becoming a CR			
Yes	35	95	
No	2	5	

SD: standard deviation; CR: chief resident.

during service and the importance of the year spent as CR.

As mentors of residents, CRs play a critical role in the education of the other trainee health care providers and their own. As a result, they carry out an educational activity that requires to be prioritized and studied in greater depth.[4] For this reason, the new reality that takes place in each institution should be reviewed.

In this regard, first of all, it is worth noting that less than half of CRs who participated in the study were females, in spite of the growing feminization of the medicine degree (approximately 70 % of graduates).[9] In our hospital, the percentage of women who start the residency program is 51.8 %.[10] This may be explained by the constraints women face to access decision-making positions, known as *glass ceiling* or *vertical segregation*, present in our country as well as in many others.[11-14] In addition, there is a tendency to choosing non-surgical specialties among women.[15]

Previous studies have evidenced changes in the CR role: from more academic activities to others more related to the management of the residency[2] and even administrative activities; this could mean a negative change in terms of the knowledge to be acquired during the final year of the residency program. In our study, most of the least gratifying situations pointed out by CRs were related to interpersonal relations.

Likewise, CRs perceived that they lacked training to play such role. This is consistent with other studies that analyzed the need for training on new leadership and management skills in complex institutional contexts where time and logistics are not enough to provide such training.[3] Management, communication, and leadership skills may be learned and, therefore, they require to be trained.[16,17] Having taken cognizance of such perceptions, our team of trainers and the people responsible for the residency programs designed a specific training for future CRs.

TABLE 3. *Situations perceived as most gratifying by chief residents (n = 37)*

Categories of situations	n (%)	Statements from chief residents
1. Development of a teaching role	26 (70)	"Seeing how residents develop academically and creating a good atmosphere".
2. Recognition of the CR role	12 (32)	"When residents thank you for what you've taught them and the good relation with them".
3. Team leadership	7 (19)	"Forming a group of people that respect one another and help so that others improve".
4. Participation in research activities	3 (8)	"An active participation of my residents in conferences and symposiums".
5. Professional growth	3 (8)	"The possibility of scheduling my own surgeries".
6. Development of ties	3 (8)	"Being part of a highly-motivated group".
7. Resource management	2 (5)	"Being able to add more rotations and creating a syllabus on pharmacology".

CR: chief resident.

TABLE 4. *Situations perceived as least gratifying by chief residents (n = 37)*

Categories of situations	n (%)	Statements from chief residents
1. Difficulties in the management of interpersonal relations	17 (46)	"Having to deal with the requests and complaints of all residents and staff physicians, who sometimes have competing interests".
2. Performing administrative tasks	10 (27)	"Having to deal with administrative situations".
3. Management difficulties	7 (19)	"I tried to implement a research rotation in general medicine with a guarded timetable, but I couldn't do it".
4. Overburden of health care activities	7 (19)	"The need to cover health care positions due to absences at the same time you have to do your CR activities".
5. Communicating unpleasant decisions	4 (11)	"I feel disappointed by disrespectful attitudes towards patients, medical peers, tardiness, repeated absenteeism or poor exam scores. It took me some time to understand it".
6. None	4 (11)	"There were no unpleasant situations".
7. Loss of meaning in the residency as a formative device	1 (3)	"Knowing that residents are burnt out by the residency training system and the assistance-based model to a point that the residency makes no sense anymore".

CR: chief resident.

Training took into consideration the inclusion of communicational skills, leadership, learning group coordination, and conflict resolution before starting to act as CR.

In relation to the selection system, surveyed CRs stated that processes were heterogeneous, although, in all cases, the program director was involved as the authority of the residency. In addition, a relevant percentage of CRs were unaware of the selection mechanism. The published bibliography describes the experience of better explained selection systems, where the CR is chosen by their peers, the program director, and even the staff providers involved with them. It is clear that making selection systems transparent may increase residents' interest in becoming a CR.

In this setting, it is worth noting that the CR role is dynamic, constantly changing, and regulated by the reality of the department and the team of health care providers who take part in the residency program every year. For this reason, our results should be updated regularly.[18]

This study poses certain limitations, such as the small sample size, the convenience, non-probabilistic sampling, and the analysis of a single teaching facility, which hinders the generalization to other settings in our country, and the fact that data were collected from a self-administered survey.[19] However, it is invaluable because the rate of response was close to the census rate and different specialty profiles were grouped. Finally, this study allowed us to know the relevant aspects related to CR tasks and difficulties that are key to design skill improvement strategies for the management of groups of health care providers in educational settings to ultimately improve the quality of residency programs.

CONCLUSION

The most gratifying situations were developing a teaching role and the recognition of the CR role, whereas the least gratifying ones included difficulties in the management of interpersonal relations and performing administrative tasks. Most participants recognized the lack of training to be a CR but valued the experience and would recommend it to a colleague. ■

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Annex

Survey administered to chief residents

Number of chief residents in your program:

Number of residents in your program (do not include residents rotating from other departments):

Number of teaching coordinators:

Number of teaching supervisors:

Other:

Briefly describe the system used to select a chief resident:

_____

_____

_____

Indicate what percentage of your time you assigned to the following activities:

Teaching (standing in front of a class, demonstrating a skill, etc.)	
Academic management (organizing rotations, etc.)	
Health care activities	
Research	
Administration	
Total	100%

Describe the two most gratifying situations that you have experienced in relation to your role as chief resident:

_____

_____

_____

Describe the two least gratifying situations that you have experienced in relation to your role as chief resident:

_____

_____

_____

Do you think you should have required some type of training for your role as chief resident?

No.

Yes. What type?

Would you recommend becoming a chief resident to a colleague?

Yes. No.

Indicate the reasons for this:

_____