



## Special Article

## What Do Rheumatology Residents Think of Their Training? A Survey of the National Rheumatology Commission<sup>☆</sup>

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## ABSTRACT

The National Commission of Rheumatology has developed a satisfaction survey for residents concerning their training period. 37% of the 176 invited to participate answered the survey. 71% said they were satisfied or very satisfied with the influence of the assistance activities during their training. 38% were dissatisfied or very dissatisfied with supervision by staff. 39% were dissatisfied or very dissatisfied with their training in polarized light microscopy. 52% said no regular meetings were structured to monitor their training. 66% said that there had been no effective evaluation of their training. 39% were dissatisfied or very dissatisfied on the tools they were given to publish at their teaching unit. Overall satisfaction on classroom training for residents of Rheumatology is high. There are opportunities for improvement relating to training in certain techniques, monitoring and evaluation of the training period and training in research skills.

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### ¿Qué opinan los residentes de reumatología sobre su formación? Una encuesta de la Comisión Nacional de Reumatología

## RESUMEN

La Comisión Nacional de Reumatología ha elaborado una encuesta sobre la satisfacción de los residentes respecto a su periodo formativo. Contestaron un 37% de los 176 invitados a participar. Un 71% manifestó que estaba satisfecho o muy satisfecho de la influencia de la actividad asistencial en su formación. El 38% estaba insatisfecho o muy insatisfecho de la supervisión por parte de la plantilla. El 39% estaba insatisfecho o muy insatisfecho del adiestramiento en microscopía de luz polarizada. El 52% contestó que no existían reuniones periódicas estructuradas de monitorización de su formación. El 66% declaró que no había existido ningún tipo de evaluación efectiva de su formación. El 39% se mostró insatisfecho o muy insatisfecho respecto a las facilidades para publicar que le brindó su unidad docente. La satisfacción global sobre la formación asistencial de los residentes de reumatología es elevada. Existen oportunidades de mejora referentes al entrenamiento en determinadas técnicas, la monitorización y evaluación del periodo formativo y la formación en habilidades de investigación.

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## Introduction

The system of training resident physicians (MIR) has shown in recent decades to be an extraordinarily effective way to train

specialists in Spain. In recent years there has been some debate about the need to reform some aspects of the MIR system access and training routes in different specialties. In this sense, the National Commission of Rheumatology (CNR) has promoted the idea of seeking the views of resident physicians in rheumatology and rheumatologists who had recently completed their MIR training, whereas this information would be useful to identify opportunities for improvement in training in Rheumatology. The objective of this study is to know the opinion of specialists regarding specialized training and labor as well as many aspects,

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including teaching and research in the Rheumatology residence in Spain.

## Methods

The CNR designed a survey with a wide range of questions about different aspects of care, teaching and research related to MIR formation in rheumatology. The survey was adapted to the online Survey Monkey utility and sent to the respondents using e-mail addresses contained in a list of residents of the Spanish Society of Rheumatology (SER). In order to determine whether the opinion on different aspects of training MIR varied with the prospect of professional activity in the first years after completing the MIR training, the invitation to participate in the survey was sent to residents and seniors as well as rheumatologists who had finished their MIR training 1 and 2 years before.

Descriptive statistics, such as means and standard deviations (SD), were used, extreme values for continuous variables, and absolute frequency and percentages for categorical variables. To determine whether significant differences existed among respondents in the last years of their residence and the first years of employment, we used  $\chi^2$  tests and  $\chi^2$  for linear trend in  $2 \times 2$  tables. We accepted a significance value less than 0.05 in bilateral contrast.

## Results

65 of the 176 guests (37%) responded to the survey. Their mean age was 30 years with a standard deviation (SD) of 3.5 years and a range of 26–49. 70% were women. Excluding a respondent from Colombia, the rest were of Spanish nationality. Only 2 respondents had a previous specialty (immunology and internal medicine). 25% were third-year residents, 25% fourth-year, 34.6% had completed their residency one year before and 15.4% 2 years prior.

### Assistance Care Activity

Regarding the role of the daily care activities in their training, 1.6% stated they were very dissatisfied, 11.1% dissatisfied, 63.5% satisfied and 7.9% very satisfied, 15.9% did not answer this question. The distribution of care in outpatient first visits was 3.81 on average (SD 1.56, range 1–9) and subsequent consultations were, on average, 11.93 (SD 3.83, range 2–21).

Regarding the organization of the rheumatology unit and distribution of work, 11.1% stated being very dissatisfied, 39.7% dissatisfied, 27% were satisfied and 6.3% very satisfied, 15.9% did not answer this question. With regard to the supervision of the resident's daily clinical work, 15.9% stated they were very dissatisfied, 22.2% dissatisfied, 36.5% satisfied and 7.9% very satisfied, 17.5% did not answer this question.

Respondents attended an average of 5 monthly on call shifts (SD 0.68, range 4–7). 91.5% of respondents stated that between 25% and 50% of these shifts were on a Saturday, Sunday or holiday. Regarding the role of on call shifts in training, 3.2% stated being very dissatisfied, 20.6% dissatisfied, 46% satisfied and 11.1% very satisfied, 19% did not answer this question.

**Table 1**  
Degree of Satisfaction With Respect to the Formation Received on Different Rheumatologic Techniques. Numbers Are Expressed as Percentages of the Surveyed Individuals.

	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied	No Answer
Arthrocentesis, joint and periarticular infiltrations	3.2	4.8	41.3	34.9	15.9
Polarized light microscopy	15.9	23.8	33.3	11.1	15.9
Musculoskeletal ultrasound	33.3	23.8	20.6	4.8	17.5
Synovial biopsy	60.3	19	3.2	1.6	15.9
Other biopsies (muscle, salivary gland, bone, temporal artery)	3.2	4.8	41.3	34.9	15.9

Asked about the degree of compliance with the objectives of the official program of Rheumatology, 4.8% stated being very dissatisfied, 27% dissatisfied, 47.6% satisfied and 4.8% very satisfied, 15.9% did not answer this question. As to the level of responsibility in relation to the level of knowledge, 4.8% considered it insufficient, 47.6% excessive and 27% adequate, not answering this question in 4.8% cases. The time available to perform tasks of daily routine was considered insufficient by 34.9% of respondents and adequate by 47.6%, 17.5% did not answer this question. 50.8% of respondents stated that there were monographic reviews in their teaching units while 33.3% said there were none and 15.9% did not answer the question. 47.6% attended the day hospital while 36.5% did not.

Table 1 shows respondents' views on their training in the various rheumatology techniques. 84.1% of respondents had full access to material to perform arthrocentesis and punctures (15.9% did not answer the question). In contrast, 7.9% had no access to a polarized light microscope and 12.7% had access difficulties. As for ultrasound, 20.6% had no access while 28.6% had access difficulties. 23.8% had no access to capillaroscopy and 11.1% had access difficulties. With regard to the material to perform biopsies, 41.3% had no access and 17.5% reported access but with difficulty.

Table 2 shows respondents' views on their training in different diseases and use of conventional drugs and biological agents. When comparing responses between training specialists and experts who had already completed the residence, the only statistically significant difference was regarding the quality of the training received in regional pain syndromes and fibromyalgia. 80% of residents and seniors were satisfied or very satisfied compared to 50% of the specialists who had already completed his residency ( $P=0.042$ ).

With regard to classroom training taken as a whole, 1.6% felt very dissatisfied, 9.5% dissatisfied, 65.1% satisfied and 7.9% very satisfied, 15.9% did not answer the question.

### Teaching

67.8% acknowledged knowing the official training guide for those specializing in rheumatology. 50.8% considered they had an appropriate rotation plan while 33.3% considered it inadequate. The length of the rotations in other hospital departments was considered insufficient by 23.8%, adequate by 47.6% and in 12.7%, excessive, while 15.9% did not answer. 82.5% of respondents considered it important to complete training with a rotation at another center while 3.2% did not consider it important. In this regard, 71.4% of respondents acknowledged that their academic unit offered a real possibility to rotate out of the hospital voluntarily while 12.7% said there was no such possibility.

57.1% of respondents stated that their teaching unit organizes at least one training session a week, 15.9% at least one session per month, 9.5% less than one session per month and 1, 6% did not organize any meeting, 15.9% of respondents did not answer the question. In relation to the participation of the deputies/FEA training sessions, 6.3% felt very satisfied, 38.1% satisfied, 25.4% and 12.7% dissatisfied and very dissatisfied, respectively, 15.9% did not answer the question and 1.6% said no meetings were organized. 28.6% of respondents felt that the number of sessions organized by their service was poor, 50.8% adequate and 4.8% very adequate, 15.9% did

**Table 2**

Degree of Satisfaction With Respect to Formation Received on Different Diseases and Therapeutic Agents. Numbers Are Expressed as Percentages of the Surveyed Individuals.

	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied	No Answer
Rheumatoid arthritis	0	0	52.4	31.7	15.9
Spondyloarthropathies	1.6	3.2	58.7	20.6	15.9
Systemic Lupus Erythematosus, other connective tissue disease, systemic vasculitis	7.9	19	36.5	22.2	14.3
Crystal arthropathy	1.6	6.3	60.3	15.9	15.9
Osteoarthritis and	3.2	6.3	57.1	15.9	17.5
Osteoporosis and metabolic bone disease	1.6	12.7	52.4	17.5	15.9
Regional pain syndromes and fibromyalgia	4.8	25.4	47.6	6.3	15.9
Use of immunosuppressants	1.6	7.9	60.3	14.3	15.9
Use of biologics	1.6	6.3	57.1	17.5	17.5

**Table 3**

Degree of Satisfaction With Respect to Different Members of the Teaching Units in the Residents' Formation. Numbers Are Expressed as Percentages of the Surveyed Individuals.

	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied	No Answer
Unit chief	14.3	30.2	25.4	14.3	15.9
Tutor	7.9	22.2	38.1	15.9	15.9
Attendings	1.6	30.2	44.4	9.5	14.3

not answer the question. With regard to the participation of the teaching unit in hospital sessions or other services, 3.2% felt very satisfied, 34.9% satisfied, 25.4% dissatisfied and 14.3% very dissatisfied, 15.9% did not answer the question and 6.3% stated that their service had never participated in these sessions.

With regard to access to the Internet and electronic journals, 74.6% expressed full access while 9.5% had access difficulties, 15.9% did not answer the question.

Table 3 shows respondents' views on the involvement of individual faculty members of teaching units.

### Assessment and Monitoring of Learning

As for the mandatory periodic and structured meetings with the tutor, 52.4% of respondents replied that none existed. 4.8% had at least one month and 15.9% had at least one every quarter, 4.8% had at least one in the semester and 6.3% at least one annually.

52.4% of respondents thought a final exam on the knowledge and skills acquired was not necessary at the end of the course while 31.7% thought it was and 15.9% did not answer the question.

66.7% of respondents replied that there had not been some kind of effective assessment and just a formal training period of residence compared with 17.5% who said yes. With regard to the book of the resident, 58.7% answered that it had not been properly completed, accurately and regularly while 25.4% said it was.

### Research Activity

39.7% of respondents had already presented their research project, 17.5% were doing a dissertation and 6.3% had already submitted their doctoral thesis. 12.7% had completed graduate courses and 7.9% had not begun any activities of graduate students.

With respect to the facilities offered at the teaching unit for the dissertation, 12.7% of respondents were very dissatisfied, 25.4% dissatisfied, 34.9% satisfied and 12.7% very satisfied, while 14.3% did not answer the question.

As for the facilities offered by the unit of Rheumatology for residents to publish, 11.1% stated being very dissatisfied, 28.6% dissatisfied, 28.6% satisfied and 15.9% very satisfied.

When asked about the overall impression of their research training, 15.9% of respondents were very dissatisfied, 38.1% dissatisfied, 22.2% satisfied and 7.9% very satisfied.

### Discussion

The MIR system has meant a breakthrough in the education of medical specialists with an appropriate level of technical training. However, in recent years some opportunities for improvement related primarily to a more solid structure or training pathway systems for supervision and more effective evaluation have been identified. The CNR is an advisory body of the Ministries of Education and Health. Its composition, powers and operation are regulated by Article 28 of the Profession Health Planning Act.<sup>1</sup> Among other functions, the CNR should develop specialty training program, establish evaluation criteria for training specialists to propose the creation of specific training areas, establish criteria for the evaluation of teaching and training unit, prepare the report on programs and criteria for continuing professional training or participate in the design of comprehensive plans within the scope of rheumatology.<sup>1</sup>

Certainly, knowing the opinion of the main protagonists of the MIR training in rheumatology, residents, it is of utmost importance to detect problems, limitations and deficiencies related to the program. Therefore, the CNR conducted this survey, directed to third and fourth year residents of Rheumatology and specialists who have finished the residency in the one or two years before. The survey looked at many aspects of care, teaching and research in the rheumatology residency.

In the field of health care activity, respondents were mostly satisfied or very satisfied on its influence in training. In fact, only 12% were dissatisfied or very dissatisfied. In contrast, a significant proportion of respondents felt that supervision was not enough, feeling dissatisfied or very dissatisfied in 38%. In the same vein, nearly half of respondents felt that the level of responsibility required in relation to knowledge of the resident was excessive. Likewise, the organization of the unit of rheumatology and the division of tasks were unsatisfactory for 50% of respondents. Together, these responses suggest that residents feel the lack of oversight by the medical staff.

While respondents overwhelmingly expressed their satisfaction with the learning of joint puncture techniques and infiltration, it is worrying to note that training of a basic technique such as the examination of synovial fluid under polarized light microscopy was considered suboptimal by almost 40% of respondents, or that learning an emerging technique of extraordinary value as a diagnostic musculoskeletal ultrasound was considered very unsatisfactory or unsatisfactory by 57% of respondents. It should also move to reflect that almost 8% of residents had no access to the polarized light microscope and 12.7% had access difficulties. It should be

remembered that the analysis of synovial fluid under polarized light microscopy is considered an essential technique in training guide<sup>2</sup> and the availability of a polarized light microscope is a prerequisite for accreditation of teaching units.<sup>3,4</sup>

The degree of satisfaction with the training received in different diseases and the use of immunosuppressants or biological agents was generally high. One might note that the highest level of dissatisfaction existed in systemic lupus erythematosus, systemic vasculitis and other connective tissue diseases, osteoporosis and other metabolic bone diseases as well as regional pain syndromes and fibromyalgia.

In the field of educational structure, the lowest level of satisfaction is due to the absence or scarcity of structured and effective assessments of the itinerary. It should be remembered that both points are a formal requirement of the 183/2008<sup>5</sup> royal decree and that efforts should be made so that the resident tutors have enough time available to perform these essential tasks in their process of formation.

In terms of research training, a small number of residents and former residents graduated with a dissertation completed and 8% had not yet begun their graduate academic project. Also worth taking into consideration is the fact that 39% of respondents were very dissatisfied or dissatisfied with respect to the facilities offered to them by teaching unit to publish articles during the residency.

Our study has some limitations. First, the response rate did not reach 40% of individuals contacted. Moreover, demographic data were not collected and some medical professionals invited to participate refused to do so, so we cannot be assured that the group

of participants was truly representative of the rest. On the other hand, the survey also asked specifically about the distribution of rotations outside the rheumatology service or the convenience in homogenizing them.

In summary, residents of rheumatology of our country are reasonably satisfied with respect to their classroom training but it would be desirable to improve relevant aspects of their training such as the supervision of their daily work, their responsibility in the advancement of their professional skills, improvement in their training in particular techniques and conditions, progress in monitoring and evaluation of more structured learning and providing better opportunities for research, publication and development of graduate studies.

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