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Short report

Multidisciplinary collaboration among young specialists: results of an international survey by the emerging EULAR network and other young organisations

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ABSTRACT

Background Multidisciplinary collaboration is defined as a collective work involving multiple disciplines and is common in clinical care and research. Our aim was to describe current clinical and research collaboration among young specialists and to identify unmet needs in this area.

Methods An online survey was disseminated by email and social media to members of the EMerging EUlar NETwork, the Young Nephrologists' Platform, the Paediatric Rheumatology European Society Emerging Rheumatologists and Researchers and the European Academy of Allergy and Clinical Immunology Junior Members.

Results Of 303 respondents from 36 countries, 61% were female, 21% were aged below 30 years and 67% were aged 31–40 years. Young rheumatologists were the most represented (39%), followed by young nephrologists (24%), young paediatricians (20%), young allergologists (11%) then young internists (3%) and 3% other specialities. Collaborations were reported frequently by phone and email, also by various combined clinics while common local multidisciplinary meetings were uncommon. 96% would like to develop clinical research collaborations and 69% basic research collaborations. The majority of young specialists would be interested in online (84%) and/or 1–2 days (85%) common courses including case discussion (81%) and training workshops (85%), as well as webinars recorded with several specialists on a specific disease (96%).

Conclusions This collaborative initiative highlighted wishes from young specialists for developing (1) regular local multidisciplinary meetings to discuss complex patients, (2) clinical research collaboration with combined grants and (3) multidisciplinary online projects such as common courses, webinars and apps.

Key messages

What is already known about this subject?
- Multidisciplinary approach can improve patient care. However, the status of multidisciplinary collaborations among young specialists is currently unknown.

What does this study add?
- This study highlights current practices and depicts unmet needs in multidisciplinary collaborations among young specialists.

How might this impact clinical practice?
- We have identified areas for improvement in multidisciplinary collaborations and propose new strategies and educational offers in order to address existing unmet needs.

INTRODUCTION

A multidisciplinary approach is defined as a collective work involving multiple disciplines. Unlike similar concepts, such as interdisciplinary and transdisciplinary collaborations, a multidisciplinary approach refers to the combination of different expertise towards a common purpose, usually in complex situations, while keeping the existing boundaries between each unique discipline.[1] Over the last two decades, the importance of multidisciplinary teams (MDTs), which usually involves several healthcare professionals to provide a holistic patient care, has become widely accepted.[2] Importantly, the value of such teams in improving patient care has been demonstrated, especially in specialities like oncology.[3] MDT working is critical in achieving best practice in the management of multisystem autoimmune rheumatic and musculoskeletal diseases (RMDs).[4 5] Although the creation of multidisciplinary clinics has widely expanded, the development of collaborative research

networks is more limited. Moreover, while scarce data regarding multidisciplinary collaboration among senior doctors exist, the characteristics and features of multidisciplinary interaction between young specialists remain unknown, and consequently so are the possible areas for improvement.[6 7] Given that trainees and young specialists are as much exposed to patient care as senior physicians, it is important to evaluate their practice in terms of multidisciplinary collaboration more in depth. In addition, based on their unique knowledge on new technologies, such as social media, early career clinicians and researchers could play a prominent role in establishing and enhancing new channels of communication among specialities, with the ultimate aim of positively impacting upon patient care.[8] Therefore, we aimed to describe the state of the art of collaboration across young specialists and researchers, working in the field of RMDs, and to identify unmet needs in order to inform future collaborative initiatives.

METHODS

An online survey was developed by a multidisciplinary group of young physicians and researchers from the following international organisations: the EMerging EUlar NETwork (EMEUNET), the Young Nephrologists' Platform (YNP), the Paediatric Rheumatology European Society Emerging Rheumatologists and Researchers (PReS EMERGE) and the European Academy of Allergy and Clinical Immunology Junior Members (EAACI JM) (n=14 collaborators). The survey questions were formulated and approved by all coauthors. The final survey was created online through Survey Monkey, comprising 38 questions organised across three sections. The first section addressed demographic data, medical specialty, and membership from any national or international organisations. The second section addressed the current clinical practice in terms of multidisciplinary approach, and a third section focused on research collaborations (full survey in online supplemental text S1). The survey was disseminated by email and social media platforms to the members of EMEUNET,[9] YNP, PReS EMERGE and EAACI JM and national young organisations. The survey remained open for 1 month. Descriptive statistics were used to analyse the responses using Graphpad Prism 8.

RESULTS

Demographic data

In total, 303 respondents from 36 countries completed at least the first section of the survey (table 1). Top four answering countries were as follows: UK (n=75, 24.8%), Italy (n=54, 17.8%), Spain (n=31, 10.2%) and France (n=28, 9.2%). The detailed distribution of respondents across countries is described in online supplemental table 1.

Half of the respondents were members of a national organisation (50%, n=151/303) and almost two-thirds of an international organisation (63%, n=190/303).

Table 1 Demographic data and current activity

Demographic data	n (%)
Total respondents	354
Complete response of at least the first section of the survey	303 (86)
Age (years)	
<25	6 (2)
25–30	65 (21)
30–35	121 (40)
35–40	81 (27)
>40	30 (10)
Gender	
Female	184 (61)
Male	119 (39)
Speciality	
Rheumatology	118 (39)
Nephrology	74 (24)
Paediatrics	60 (20)
Allergology	34 (11)
Internal medicine	9 (3)
Other (clinical immunology, dermatology, orthopaedics, otorhinolaryngology, ophthalmology)	8 (3)
Position*	
Certified specialist	186 (61)
Trainee	104 (34)
Researcher/Clinician	156 (51)
Researcher/No clinical work	13 (6)

*More than one option could be chosen.

Interaction across specialities in the clinical and research setting

Training in other specialities during specialist training as part of the speciality curriculum was reported by 75% of the respondents (n=219/291).

The steps to this collaborative approach in the clinical setting and in research are outlined in table 2.

Most of the exchanges between clinicians were reported to occur via telephone (95%, 229/240), email or informal personal contact on a daily (31%, n=74/240) or 2–3 weekly basis (30%, n=73/240). Multidisciplinary clinics (48%, n=144/240) or combined multidisciplinary meetings (72%, n=172/240) were reported to take place once a week (20%, n=29/144; and 24%, n=41/172, respectively) or once a month (23%, n=33/144; and 27%, n=46/172, respectively) in 25 countries. Most of the collaboration in both clinical practice and research started by knowing each other (74%).

Most interactions were reported to occur with other specialists from the same institution working in same (39%, n=94/240) or different building (34%, n=82/240), and less often from different hospitals within (23%, n=55/240) or outside of the region (4%, n=10/240). Of note, 71% (n=171/240) of respondents regarded the collaboration with young colleagues easier than with senior specialists.

Table 2 Current practice of collaborative work between young specialists in both clinical practice and research

	Clinical practice	Research
	n (%)	n (%)
Total respondents	240	169
Type of collaboration*		N/A
Telephone	229 (95)	
Informal personal contact on a daily basis	74 (31)	
Common clinics	144 (60)	
Multidisciplinary meetings	172 (72)	
Ways of starting the existing collaborations*		
Knowing other specialists personally	177 (74)	124 (74)
Attending common national/international conferences and or workshops	80 (33)	65 (39)
Working in the same hospital	77 (32)	50 (30)
Attending the same meetings or seminars	67 (28)	39 (23)
Working in the same laboratory	9 (4)	25 (15)
Already in place before joining the department	44 (18)	49 (29)

*More than one option could be chosen.
Denominators varies depending on the categories as not all respondents were doing clinical and research activities.
N/A, not applicable.

Unmet needs, new strategies and educational offers

Ninety-seven per cent of the respondents (n=225/233) considered important to develop multidisciplinary clinics in order to either improve patient care in daily practice (51%, n=118/233) or discuss difficult-to-treat diseases and clinical challenges (46%, n=107/223). A large majority of the respondents (96%, n=224/233) reported that they would like to develop clinical research collaborations, with 69% (n=151/218) interested in basic research collaborations, and 89% (n=208/233) would be keen to apply for collaborative grants with multiple specialities.

The majority of young specialists would be interested in online educational initiatives (84%, n=184/233) and/or 1–2-day courses (85%, n=197/233) across-specialities. There was also some interest shown towards the development collaboration opportunities though social media (common group on Facebook (59%, n=137/233), common journal club on twitter (54%, n=126/233), common apps on smartphone (67%, n=157/233), podcasts (60%, n=139/233)). Respondents reported preference for these educational initiatives to be composed of either common case discussions (81%, n=188/233), training workshops (85%, n=197/233) or lectures (55%, n=118/233), as well as webinars recorded with several specialists on a specific disease (96%, n=230/239). Clinical immunology (45%, n=106/233), dermatology (43%, n=100/233), infectious diseases (36%, n=83/233), rheumatology (33%, n=78/233), pneumology (32%, n=75/233) were the specialties gathering the most interest for such common initiatives.

DISCUSSION

To the best of our knowledge, this is the first study describing the current practice and unmet needs of multidisciplinary clinical and research collaborations among young specialists working in the field of RMDs. The reader is referred to the literature for the teamwork among different healthcare providers.[2] We found that multidisciplinary collaboration is already common practice and deemed important by young specialists for their clinical training and research. There is however room for improvement.

Clinical collaborations are taking place mostly through telephone or email among all specialities. Multidisciplinary meetings were also frequent while common clinics were only reported by less than half of the respondents. Remarkably, a high number of respondents stated that their clinical/research collaboration, started by knowing each other personally and by attending common conferences, or by working in the same hospital. This suggests an unmet need and an opportunity for improvement in promoting interactions across different disciplines to learn from each other, meet, network and foster further collaborations.[10]

In order to address this unmet need, in addition to face-to-face congresses and workshops, initiatives aiming at promoting interactions across geographical and speciality borders are highly encouraged. This would represent an unpreceded opportunity to facilitate collaborations regardless of the institution of origin, representing more and equal opportunities to all. In that respect, the use of telemedicine and social media may play an increasingly important role.[11 12] Initiatives suggested in order to address these unmet needs are summarised in table 3. EMEUNET has been paving the ground for the implementation of such initiatives over the last years. Indeed, EMEUNET has successfully developed online interactive tools promoting networking and knowledge exchange

Table 3 Unmet needs in the field of multidisciplinary collaboration and suggestions for addressing these

Unmet needs	Suggestions
-Multidisciplinary research collaboration and research grants -Meeting opportunities -Multidisciplinary educational offer	-Interactive multidisciplinary online platform -Multidisciplinary conferences -Webinars, podcasts -Multidisciplinary journal club -Smartphone app -Case discussions -Training workshops

among young clinicians and researchers across the world, and has been pioneering these efforts (journal club, peer-mentoring programme, etc).[13–15] Similar initiatives have been pursued by other organisations. Of note, the current study, involving four young specialists' organisations, testifies to the feasibility and success of 'at-distance' multidisciplinary collaborations. Moreover, collaborative initiatives are currently being prepared among our organisations, including multidisciplinary podcasts on multiorgan diseases. This could be the first step towards multidisciplinary workshops, or to the development of online collaborative platforms for clinical and translational researchers subsequently facilitating the exchange of resources and ideas sharing across countries and specialities.

In conclusion, young clinicians and researchers in rheumatology, nephrology, paediatric rheumatology and allergy and clinical immunology have reported great interest and enthusiasm in further developing opportunities for collaboration in both clinical and research settings. This work addresses the knowledge gap in multidisciplinary care of people living with RMDs and may hopefully lead to the development of new initiatives to ultimately contributing to improved patient care.

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