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Frailty in relation to psycho-social factors in elderly patients with rheumatoid arthritis: A cross-sectional mixed qualitative-quantitative study

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Abstract

Aim: The aim of the study was to explore in patients with rheumatoid arthritis (RA) ≥55 years: (1) whether the occurrence of frailty as measured by the Groningen Frailty Indicator (GFI) increases with age (survey 1); and (2) to gain insight into which frailty characteristics (eg, loneliness) contribute to frailty (survey 2).

Methods: The GFI was assessed in 3 age groups (55-64/65-74/≥75-years), ensuring equal representation. GFI-subdomains that discriminated most between those classified as frail were further studied in a subset of patients using validated domain-specific questionnaires (eg Hospital Anxiety and Depression Scale [HADS]) and semi-structured interviews. Questionnaires were filled out twice: for current age and the recalled situation at age 40, to see whether psychiatric symptomatology might be misinterpreted for frailty.

Results: Of 90 patients included, frailty prevalence on the GFI across age groups was 43.3%-40.0%-43.4%, respectively. Frail patients often reported depressive (73.7% vs. 11.5%) and anxious (57.9% vs. 15.4%) feelings. There were 32/90 patients who filled out the psycho-social questionnaires twice. More frail patients had signs of an anxiety disorder on the HADS (missing data 4 patients), both at current age (5/11 frail patients vs. 0/17 non-frail patients, $P = .01$) and age 40 (7/11 frail patients vs. 0/0 non-frail patients, $P < .01$). During the interviews, especially frail patients reported gloomy feelings, although none confirmed depression or anxiety.

Conclusions: Frailty is highly prevalent in RA patients ≥55 years. As frail patients were characterized by symptoms of anxiety both at current age but (recalled) also at age 40, this finding suggests that pre-existing psychiatric symptomatology may confound assessment of frailty.

KEYWORDS

elderly, frailty, qualitative research, questionnaire, rheumatoid arthritis

1 | BACKGROUND

Accelerated population aging in the European Union is expected in the coming years, leading to a rise in the proportion of people aged 65 and over from 87.5 million in 2010 to 152.6 million in 2060.[1] As a consequence, the number of elderly rheumatoid arthritis (RA) patients will also increase.

Geriatric syndromes (GS) are common in older people and include among others immobility, instability, incontinence, intellectual impairment, sarcopenia and frailty.[2] GSs often occur concomitantly and have a significant effect on quality of life, disability, hospitalization and use of healthcare resources.[2]

Frailty is a common GS and is defined as an age-associated decline in physiologic reserve and function across multi-organ systems, leading to inability to cope with new stressors.[3] Based on this conceptual framework, 2 major definitions with proposed assessment tools were developed. The most widely known is the frailty phenotype, also known as Fried's definition. Fried et al. defined frailty as a purely physical condition, including weakness, slowness, low level of physical activity, self-reported exhaustion and unintentional weight loss.[3] The second definition is the Frailty Index, which defines frailty as cumulative deficits identified in a comprehensive geriatric assessment.[4,5] Several validated tools to measure frailty are available. One of these is the Groningen Frailty Indicator (GFI), a questionnaire that also addresses social and emotional aspects of frailty, such as loneliness, depression and anxiety.[6]

In a systematic review in community-dwelling people aged >65 years, the average pooled prevalence of frailty, defined by a variety of approaches, was 10.7%.[7] However, this prevalence is highly varied across studies included in this review (range 4%-59%), mainly due to different definitions of frailty status.[7] Measurement of frailty in RA patients, is extra complicated, since several frailty characteristics are part of the RA disease construct, for instance lower grip strength and slower walking speed due to sarcopenia.[8] In a recent study by our group, we found that 55% of 80 RA patients >65 years who visited our outpatient clinic could be classified as frail when applying the GFI, but surprisingly no association with age was seen. It was felt that more data among younger patients would be needed, as we might have missed the inclination point for becoming frail. In addition, patients in our study were often classified as frail because of positive answers on items that report on depressive feelings (53.8%), anxiety (40.0%), missing people around (32.5%) and emptiness (23.8%).[8] As the domains for loneliness, depression and anxiety are assessed with single items with a dichotomous answer in the GFI, this observation requires confirmation by validated domain-specific questionnaires. Last, to confirm whether these subdomains were characteristic for older and frail patients, we were interested whether these psycho-social domains are a cause or consequence of frailty. Therefore, the objective of this mixed qualitative-quantitative study was to gain insight into the occurrence of frailty across increasing age categories (55 years and older) and to explore whether poor psycho-social health might be a longitudinal predictor of frailty.

2 | METHODS

2.1 | Design and participants

Two cross-sectional surveys and a qualitative exploration were conducted. All studies were approved by the Ethics Committee of the Maastricht University Medical Center (MUMC+).

The first survey was conducted in RA patients aged ≥55 years visiting the outpatient clinic of the MUMC+, Maastricht, The Netherlands. Consecutive patients visiting the outpatient rheumatology clinic of the MUMC+ between July 2017 and December 2017 were considered for inclusion while ensuring equal representation of patients in 3 pre-defined age groups (55-64, 65-74, and ≥75 years). Patients were included if they were ≥55 years and were able to understand the study information. The rheumatologist informed all patients after a regular visit to the outpatient clinic about the study. Patients received an information letter, an informed consent form, and several questionnaires. Patients were included if they returned the informed consent form and questionnaires. No reminders were sent. Next to demographic characteristics, patients rated their overall health on a visual analog scale (0-100; 100 very bad health) and completed the GFI. The GFI is a validated, 15-item questionnaire with a score range from 0 to 15 which assesses the physical (mobility functions, multiple health problems, physical fatigue, vision, hearing), cognitive (cognitive dysfunction), social (emotional isolation), and psychological (depressed mood and feelings of anxiety) domains. Items have various scales that are dichotomized and "1" indicates a problem or dependency. A total GFI score of ≥4 is considered the cut-off point for frailty.[6] Information about healthcare consumption in the past 3 months was also collected. Rheumatologists recorded the number of comorbidities and the number of medications (polypharmacy was defined as the use of at least 5 medications).

A second survey was performed in October 2018 among patients who participated in the first survey. As the first survey revealed that the distinction between frail and non-frail patients was almost exclusively determined by psycho-social factors, we aimed to ascertain this by using 4 validated questionnaires among a subpopulation of the RA patient group of the first survey. The 11-item De Jong Gierveld Loneliness Scale measures loneliness. The total score ranges from "0" (not lonely) to "11" (extremely lonely), with a score of "3" or higher indicating loneliness.[9] The 34-item Social Support List – Interactions (SSL-I) measures the number of supportive interactions the respondents receive from their social support network. The 34 items are subsequently repeated to measure the amount of (dis)satisfaction with that support (SSL-D).[10] The 14-item Hospital Anxiety and Depression Scale (HADS) consists of 2 7-item subscales measuring depression and anxiety. A 4-point response scale ("0", absence of symptoms, to "3", maximum symptomatology) is used, with scores per subscale ranging from 0-21. A cut-off score ≥8 indicates a possible presence of anxiety or depression.[11] The 15-item Geriatric Depression Scale (GDS) assesses depressive symptoms and screens for depression among older people. A cut-off score ≥6 indicates symptoms of depression.[12]

Further, to understand whether these determining psycho-social domains were actually a personality trait of consequence, patients filled out 4 questionnaires twice, once for current age and once for the recalled situation at age 40.

In addition, responders to the second survey were invited for semi-structured interviews to explore whether loneliness, depression and anxiety are actually personality traits already present at younger age or are a characteristic of aging. An interview guide that included both open-ended and closed questions was developed to secure uniform data quality and comparability (Table S1).

2.2 | Statistical testing

Patient characteristics, total GFI, and domain scores of participants in the first survey were compared between the 3 age groups using analysis of variance or Kruskal–Wallis tests. Data of patients classified as frail or non-frail were compared using a Chi-square test for categorical data or the independent samples *t* test for continuous data. For the follow-up survey, presence of loneliness, depression and anxiety between frail and non-frail and between current age and age 40 were compared using the Chi-square test. The qualitative interviews were audio-taped, transcribed, read and annotated by 2 readers (FC and AvM). Content analyses were conducted using NVivo12 software to uncover themes related to symptoms of loneliness, depression and anxiety and the role of RA in the development or aggravation of these symptoms. Coding was performed to structure themes further into categories and to create groups.

Statistics were analyzed using SPSS 24.0 (IBM, Armonk, NY, USA). Probability values of $P < .05$ were considered to be statistically significant.

3 | RESULTS

3.1 | Frailty across age groups (first survey)

Out of 172 invited RA patients, 90 (52%) completed the first survey; 30 (33%) were men and 38 (42%) out of 90 patients were classified as frail on the GFI. Across age groups, the median frailty score was 3.0 (interquartile range 1.0-5.0) and prevalence rates of frailty (respectively 43% [age group 55-64 years], 40% [age group 65-74 years] and 43% [≥ 75 years], $P = .80$) were remarkably similar (Table 1).

Frail compared to non-frail patients indicated on the GFI feelings of emptiness (63.2% vs. 3.8%), missing the presence of people around (65.8% vs. 7.7%), feelings of loneliness (55.3% vs. 0%), depression (73.7% vs. 11.5%) and anxiety (57.9% vs. 15.4%; Table S2). These percentages did not differ between the age groups (Table S3). No differences between frail and non-frail patients and between the different age categories were found with regard to number of comorbidities and polypharmacy (Tables 1 and S2).

Remarkably, independent of frailty, younger patients often indicated having memory complaints (33.3% vs 13.3%). Elderly patients more often experienced difficulties with grocery shopping (20% vs. 0%; Table S3).

3.2 | Domain-specific questionnaires: psycho-social health at current age and recalled at the age of 40 (second survey)

Of the 90 initial patients, 32 (36%) participated in the follow-up study and this subsample was representative for the total study population with regard to age and gender (mean age 70.5 years, 12 [37.5%] men, Table 2). Twelve out of 32 patients (37.5%) were classified as frail on the GFI. The domain-specific questionnaires revealed that frail patients more often had symptoms of depression and anxiety (Table 2). On the GDS at current age, 6/12 frail patients had signs of depression compared to 2/17 non-frail patients ($P = .04$, missing data on 3 patients). On the GDS retrospectively at age 40, 3/12 frail patients had signs of depression compared to 0/17 non-frail patients ($P = .06$; Table 2).

More frail patients had signs of an anxiety disorder on the HADS, both at current age and age 40 (current age: 5/11 frail patients vs. 0/17 non-frail patients; age 40: 7/11 frail patients vs. 0/17 non-frail patients, $P < .01$, missing data on 4 patients; Table 2). Results on the individual level were more blurred (kappa values 0.17 [GDS], 0.29 [HADS-anxiety]). For instance, 3 (42%) out of 7 frail patients were anxious at age 40, but not at current age. The loneliness, social support (data not shown) and HADS-depression questionnaires showed no difference between frail and non-frail patients, both at current age and age 40.

3.3 | Semi-structured interviews (survey 2)

Ten RA patients who participated in both studies (6 male, median age 66.5 [10.8] years) were interviewed and 5 patients (50%) were frail. Illustrative quotes are presented in Table 3. All frail RA patients reported having gloomy feelings. Main reason for these feelings was being limited in activities due to RA (quote 1). In general, non-frail patients had a more positive outlook on life (quote 2). Non-frail patients did not specifically experience symptoms of anxiety (quote 3). When asked whether anxiety or depression played a role at younger age, before the RA diagnosis, none of the patients reported to have these feelings in the past. However, compared to the questionnaires, 3 patients (all frail) had a positive score on the HADS-anxiety questionnaire at current age and at age 40. Main reasons for feeling lonely were not being able to participate in all activities anymore. The majority, but especially all frail patients, addressed this problem and thus felt lonely from time to time (quote 4). The majority of the

TABLE 1 Demographics, clinical characteristics, and resource utilization of the study population (survey 1)

	Total group (N = 90)	Age 55-64 (n = 30)	Age 65-74 (n = 30)	Age ≥75 (n = 30)	*P* value
Demographic characteristics					
Male	30 (33.3)	8 (26.7)	12 (40.0)	10 (33.3)	.55
Age, mean (SD)	69.7 (7.9)	61.0 (2.4)	69.6 (2.7)	78.7 (3.8)	<.01
Marital status					
Married or living together	67 (74.4)	22 (73.3)	25 (83.3)	20 (66.7)	.64
Educational level					
None or elementary school	6 (6.7)	3 (10.0)	2 (6.7)	1 (3.3)	.30
Secondary school	58 (64.4)	15 (50.0)	20 (66.7)	23 (76.7)	
Academic	26 (28.9)	12 (40.0)	8 (26.7)	6 (20.0)	
Smoking status					
Smoker	13 (14.4)	8 (26.7)	5 (16.7)	0 (0.0)	<.01
Never smoker	29 (32.2)	7 (23.3)	5 (16.7)	17 (56.7)	
Alcohol use					
Never	19 (21.1)	7 (23.2)	4 (13.3)	8 (26.7)	.48
Clinical characteristics					
Disease duration, y, median (IQR)	9.0 (4.0-20.5)	5.5 (2.8-10.5)	12.5 (6.0-21.8)	17.0 (4.0-25.0)	<.01
Patient global health, 0-100, median (IQR)	63.5 (46.9-74.0)	59.9 (45.8-70.3)	57.8 (48.8-80.2)	65.1 (45.1-74.2)	.83
Polypharmacy reported by rheumatologist, ≥5 medications	49 (54.4)	14 (46.7)	14 (46.7)	21 (70.0)	.11
Comorbidities, median (IQR)	2.0 (1.0-2.0)	1.0 (1.0-2.0)	2.0 (1.0-2.0)	2.0 (1.0-2.3)	.76
Classified as frail on GFI	38 (42.2)	13 (43.3)	12 (40.0)	13 (43.3)	.96
GFI total score, median (IQR)	3.0 (1.0-5.0)	3.0 (1.0-5.3)	3.0 (1.0-4.3)	3.0 (1.8-6.0)	.80
Resource utilization					
Non-rheumatologic appointments with specialist within the past 3 months, median (IQR)	3.0 (1.0-10.5)	3.0 (1.0-11.8)	2.0 (0.0-4.0)	4.5 (2.0-11.3)	.01
Medical/social services h within the past 3 mo	15 (17.0)	3 (10.0)	2 (6.9)	10 (34.5)	.01
Biological infusion treatment of at least 4 h during the past 3 mo	14 (15.7)	7 (23.3)	2 (6.9)	5 (16.7)	.24
Hospitalization during the past 3 mo	6 (6.7)	2 (6.7)	1 (3.3)	3 (10.0)	.87

Note: Data are presented as number (percentage) of patients unless stated otherwise. Two patients had incomplete data.
Abbreviations: GFI, Groningen Frailty Indicator; IQR, interquartile range; SD, standard deviation.

interviewed patients expressed being worried about the prognosis of RA and their future (quote 5).

4 | DISCUSSION

This study showed that the prevalence of frailty as measured by the GFI was 42% in a cohort of RA patients. Frailty was remarkably not related to increasing age or presence of polypharmacy and co-morbidity. Patients were often classified as frail on the GFI due to positive answers on items related to poor psycho-social health. The higher frequency of depressive and anxious feelings in frail people was confirmed with more domain-specific questionnaires including the GDS-15 and HADS. More frail patients had signs of an anxiety disorder on the HADS, both at current age and (recalled) at age 40. During the interviews, signs of poor psycho-social health were also more prevalent in frail patients. However, most patients expressed during the interviews that they did not experience these anxious or depressive feelings at the age of 40.

In a study by Andrews et al., including 124 RA patients (mean age 58.0 ± 10.8 years), a prevalence of frailty of 13% was found.[13] In another study by our group, we found that 55% of 80 RA patients ≥65 years could be classified as frail.[6] Although all frailty researchers agree that frailty is a multidimensional concept, consensus on a definition of frailty is lacking. Some researchers mainly put emphasis on the physical aspects, other researchers also include psycho-social aspects of health in the frailty concept.[5] The lack of consensus on the frailty definition is reflected in availability of various instruments that claim to measure the "frailty construct". Differences in study populations, methodology and use of different definitions to define

TABLE 2 Comparison between frail and non-frail elderly patients with rheumatoid arthritis (RA) (survey 2)

	Total RA (N = 32)	Frail (n = 12)	Non-frail (n = 20)	*P* value
Demographical characteristics				
Male	12 (37.5)	5 (42)	7 (35)	.72
Age, mean (SD)	70.5 (6.3)	67.4 (5)	72.4 (6.4)	.03
Marital status				
Married or living together	26 (81.3)	10 (83.3)	16 (80)	.65
Educational level				
Academic	12 (37.5)	5 (41.7)	7 (35)	1.00
Smoking status				
Smoker	18 (56.3)	3 (25)	1 (5)	.05
Never smoker	4 (12.5)	1 (8.3)	9 (45)	
Alcohol use				
Never	8 (25.0)	2 (16.7)	6 (30)	.96
Clinical characteristics				
Disease duration, y, median (IQR)	13 (5.0-22.0)	19.5 (6.0-22.0)	10.5 (4.3-20.8)	.30
RA at age 40	4 (12.5)	1 (8.3)	3 (15)	1.00
Patient global health, 0-100, median (IQR)	65.1 (51.8-78.1)	54.4 (38.4-65.1)	68.2 (54.4-86.2)	.01
Polypharmacy reported by rheumatologist, ≥5 medications	21 (65.6)	10 (83.3)	11 (55)	.14
Comorbidities, median (IQR)	2.0 (1.0)	2.0 (2.0-2.0)	1.0 (1.0-2.0)	.09
Classified as frail on GFI	12 (37.5)			
GFI total score, median (IQR)	2.5 (1.0-5.8)	6.0 (5.0-7.8)	2.0 (1.0-2.0)	<.01
Domain-specific questionnaires				
GDS-15 (current age, data N = 29)				
No depressive symptoms	21	6	15	.04
Mild depressive symptoms	8	6	2	
Moderate to severe depressive symptoms	0	0	0	
GDS-15 (recalled situation age 40, data N = 29)				
No depressive symptoms	26	9	17	.06
Mild depressive symptoms	3	3	0	
Moderate to severe depressive symptoms	0	0	0	
HADS-anxiety (current age, data N = 28)				
No indication anxiety	23	6	17	.01
Indication anxiety	5	5	0	
HADS-anxiety (recalled situation age 40, data N = 28)				
No indication anxiety	21	4	17	<.01
Indication anxiety	7	7	0	
HADS-depression (current age, data N = 28)				
No indication depression	27	11	16	1.00
Indication depression	1	0	1	
HADS-depression (recalled situation age 40, data n = 28)				
No indication depression	27	11	16	1.00
Indication depression	1	0	1	
Resource utilization				
Non-rheumatologic appointment with specialist within the past 3 mo, median (IQR)	4.0 (2.0-13.0)	9.0 (3.3-16.5)	2.0 (1.0-6.0)	.04

(Continues)

TABLE 2 (Continued)

	Total RA (N = 32)	Frail (n = 12)	Non-frail (n = 20)	*P* value
Medical/social services ho within the past 3 mo	4 (12.9)	2 (16.7)	2 (10.5)	.63
Biological infusion treatment of at least 4 h during the past 3 mo	3 (9.7)	2 (16.7)	1 (5.3)	.54
Hospitalization during the past 3 mo	2 (6.3)	1 (8.3)	1 (5.0)	1.00

Note: Data are presented as number (percentage) of patients unless stated otherwise.

Abbreviations: GDS, Geriatric Depression Scale; GFI, Groningen Frailty Indicator; HADS, Hospital Anxiety and Depression Scale; IQR, interquartile range; SD, standard deviation.

TABLE 3 Illustrative quotes made by patients (survey 2)

	Frail	Quotes
Quote 1 (F, 69 years)	Yes	"I used to travel a lot, sometimes even for weeks, on city trips. I used to go to friends. That is a lot less after the diagnosis."
Quote 2 (M, 65 years)	No	"It is what it is. From that perspective you try to live, think and act."
Quote 3 (M, 77 years)	No	"No, in everyone's life something bad happens. If you worry or are afraid then you can't live your life anymore."
Quote 4 (M, 65 years)	Yes	"They do not ask me to help anymore because they know I have RA. Then you experience a form of loneliness that I cannot handle. When they do not ask you anymore for help but somebody else, that makes me unhappy."
Quote 5 (M, 63 years)	Yes	"If you end up in a wheelchair. Then what? Then it is over."

Abbreviations: F, female; M, male; RA, rheumatoid arthritis.

frailty may explain the differences of observed prevalence rates in RA patients. Our prevalence rates may be higher due to the fact that we included patients directly from our outpatient clinics as compared to the study by Andrews et al., who included selected younger patients who were also enrolled in another cohort study.[13] These latter patients might not resemble the spectrum of patients treated in the "real world", that is, elderly patients with polypharmacy and comorbidities. In our study, we used the GFI which includes many items related to psycho-social health; in the study by Andrews et al., an adapted version of the Fried criteria was used, that mainly focuses on the physical frailty phenotype. When selecting a frailty assessment tool for clinical practice, consideration should be given to aspects such as feasibility, setting, purpose and added value of the tool.[14] For example, the use of GFI might not be appropriate in all cases, as criteria such as low grip strength (ie, weakness) are not incorporated. Recently, a Comprehensive Rheumatologic Assessment of Frailty (CRAF) algorithm was developed and validated in RA patients.[15] The CRAF index includes 10 major frailty domains: nutritional status, weakness, falls, comorbidity, polypharmacy, social activity, pain, fatigue, physical function, and depression. Further validation studies are necessary to see whether the CRAF can be implemented in daily rheumatology care.[15]

Patients in our study who were frail according to the GFI were strikingly characterized with symptoms of poor psycho-social health. As it is unclear whether poor psycho-social health was a symptom of frailty, a longer existing comorbidity or patient characteristic, we explored whether poor psycho-social health might be a longitudinal predictor of frailty. Although it is difficult to disentangle the causal conundrum between psycho-social health and frailty, frail patients were on a group level more anxious at younger age on the HADS in our study. A first step to elucidate this relationship might be to investigate psycho-social health in a sample of frail individuals, whose frailty was confirmed during a comprehensive geriatric assessment.

Prospective studies in which psycho-social health is studied as a risk factor for onset of frailty are very scarce. In a secondary analysis of the Women's Health Initiative Observational Study (N = 27 652 women, aged 65-79 years), it was found that depressive symptoms in combination with antidepressant use were associated with development of frailty 3 years later (odds ratio 3.64 [2.41-5.53]).[16] On the other hand, several studies also focused on frailty as a predictor of depression over time and found that presence of frailty appears to contribute to development, persistence or worsening of depressive symptoms.[17,18] As (1) the prevalence of frailty in our study was stable over the 3 age categories, (2) patients were often classified as frail on the GFI due to positive answers on items related to poor psycho-social health and (3) frail patients were on a group level more anxious at younger age on the HADS, our results suggest that psychiatric symptomatology might indeed be misinterpreted for frailty.

RA might be an extra complicating factor in the interplay between poor psycho-social health and frailty, as patients expressed during the interviews that RA disease activity made them worry about participation in daily activities and their future health.

This study has several limitations. Selection bias may reduce the generalizability of our results. Patients with RA living in nursing homes or severely disabled patients who are not visiting outpatient clinics were not included. Reasons for non-participation were not documented, as rheumatologists recruited patients during their daily outpatient clinics.

In addition, we did not record information about RA disease activity. Disease activity might be a potential confounder of the relation between psycho-social health and frailty. There was significant loss to follow-up in the second part of the study. Also, since patients in the second part of the study had to fill out questionnaires retrospectively at age 40, there is a high risk of recall bias. Furthermore, it is possible that patients tend to be more positive about life events in the past (the "positivity effect").[19-21] Last, we did not confirm our findings using another set of frailty criteria (eg, Fried criteria) that mainly includes physical items.

5 | CONCLUSIONS

Frailty is highly prevalent in all RA patients older than 55 years. Frailty seems to be a distinctive health construct which is not necessarily related to increasing age, polypharmacy or comorbidity in RA patients. Frail patients are characterized by lower physical fitness but also with symptoms of depression and anxiety. This might suggest that pre-existing psychiatric symptomatology may confound assessment of frailty. It is therefore debatable whether psycho-social items should be included in frailty criteria sets. Defining what frailty actually constitutes in RA patients and subsequently developing a valid measurement method to screen for frailty are important steps to improve management of elderly RA patients.

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CONFLICT OF INTERESTS

Marloes van Onna: consultancy fees Novartis, Pfizer. Research grant: Pfizer. Annelies Boonen: has received to her department research grants from Abbvie and Celgene and consultancy fees from UCB, Lilly, Novartis, Sandoz and Galapagos. The other authors declare no conflicts of interest.

AUTHORS' CONTRIBUTIONS

FC, AB and MO contributed to the study design, interpretation of findings and writing of the manuscript. AM analyzed the data of both surveys, with MO as supervisor. FC interviewed all the participants and performed the analysis with AM, with MO as supervisor. All authors approved the final version of the manuscript for submission.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section.

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