

The patient perspective on absence of disease activity in rheumatoid arthritis: a survey to identify key domains of patient perceived remission

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ABSTRACT

Background

Guidelines suggest treatment in rheumatoid arthritis(RA) to target remission, in close consultation with the patient. Our recent qualitative study of the patients' perspective on remission in RA identified 26 domains. The current study aimed to identify a short list of the most important aspects to inform future research.

Methods

RA patients from the Netherlands, the United Kingdom, Austria, Denmark, France, and the United States completed a survey that contained all domains identified in our qualitative study. They rated domains for importance ('not important', 'important', or 'essential' to characterise a period of remission) and if important or essential, whether this domain needs to be 'less', 'almost gone', or 'gone' to reflect remission. Respondents were also asked to determine their personal top three most important/essential domains. Frequency of specific domains in the top three was calculated and domains were sorted on the percentage of patients that evaluated a particular domain as 'essential'.

Results

Of 274 respondents, 75% were female, mean(SD) age 57(13) years, disease duration 12(9) years. The top 3 were: pain (67%), fatigue (33%) and independence (19%); domains most frequently rated as 'essential' were: pain (60%), being mobile (52%), physical function (51%), being independent (47%) and fatigue (41%). Pain needed to be less (13%), almost gone (42%) or gone (45%) to reflect remission. Similar patterns were seen for fatigue, independence, mobility and physical functioning.

Conclusions

Patients identified pain, fatigue and independence as the most important domains of RA disease activity that need to be improved in order to reflect remission.

Word count: 250

Patients with rheumatoid arthritis (RA) are at risk of severe bone and cartilage damage in affected joints, causing chronic pain, fatigue and other extra-articular manifestations with a significant impact on daily life. The degree of disease activity and response to treatment are traditionally determined by evaluation of the RA core set or indices derived thereof.⁽¹⁻²⁾ The core set contains the patient reported outcomes (PROs) physical function, pain and global assessment of disease activity. Although not consistently associated with joint damage and differential response in disease stages, these PROs have been found to be at least as relevant as more 'objective' physical and biochemical measures in assessing baseline disease status, improvement during interventions or prediction of long-term outcome.⁽³⁻⁴⁾ Moreover, the relevance of some of them, especially those evaluating physical function, is revealed by observations that increasing joint damage causes increasing irreversibility of functional impairment, even if clinical activity has subsided into remission.^(5,6) It is becoming increasingly clear both in and outside rheumatology that patients are crucial partners in obtaining relevant information, adding unique skills, values and experiences to research.⁽⁷⁾ Patients have identified domains such as fatigue and sleep quality to be important and thus core areas for measurement. Subsequent research has shown measurement of fatigue, one of the most important problems identified by RA patients, to be highly reliable, sensitive to change and an independent determinant of disease activity.⁽⁸⁻¹⁰⁾ As a consequence, the scientific community now recognizes fatigue as a core PRO to be measured in all RA clinical trials.^(11,12) Other products of close cooperation between patients and professionals include the recent development of patient-derived scores to capture the impact of RA and psoriatic arthritis (PsA) on daily life.^(13,14) In the last decade, the development of new drugs for the treatment of RA has made a state of minimal disease activity and even remission an attainable goal in most patients.⁽¹⁵⁻¹⁸⁾ Because treatments are increasingly targeted at achieving remission, a good definition of remission is vital. In 2011, the three leading international rheumatology organisations, i.e. the American College of Rheumatology (ACR), the European League Against Rheumatism (EULAR) and the Outcome Measures in Rheumatology group (OMERACT), led the initiative which redefined remission in RA.⁽¹⁹⁻²¹⁾ To this end, all important prognostic factors and outcome measures available in clinical trial data were evaluated for their potential use in defining remission. However, this included only the three core set PROs patient global, pain and physical function, as data on other potential important aspects of remission from the patient perspective were not available. In response, both patients and professionals identified the need to study the concept of remission from a patient perspective, to evaluate whether additional domains (and PROs) could optimize targeted therapy⁽²²⁾. Therefore, we recently undertook a qualitative study to understand the patient perspective on remission in RA.⁽²³⁾ Three major themes of patient perceived remission emerged: 1) symptoms such as pain, stiffness and fatigue would either be absent or be reduced in intensity, 2) the impact of the disease on daily life would diminish as shown by increased independence, the ability to do valued activities, improved mood and the ability to cope; 3) remission would lead to a return to normality, including the ability to work, enjoy one's family role and be seen as normal by other people. Patients felt the concept of remission was influenced by ageing, side effects of medication, comorbidities, accrued damage to joints and disease duration. This qualitative research identified many domains of interest to patients, but did not indicate the importance of one domain over another. The aim of the current descriptive study was to determine the importance of specific symptoms, aspects of disease impact and normality in defining remission in RA from the patient perspective through a survey, to complete the information necessary for optimal clinical management.

METHODS

Patients: Patients >18 years of age with a confirmed diagnosis of RA (2010 criteria)⁽²⁴⁾ receiving usual care in one of 5 centers (VU University Medical Center/Reade in Amsterdam, the Netherlands; Medical University of Vienna, Austria; Bristol Royal Infirmary in Bristol, United Kingdom (UK); Center for Rheumatology and Spine Diseases, Rigshospitalet, Glostrup, Denmark; Université Pierre et Marie Curie and Hopital Pitie-Salpetriere Paris in Paris) were invited to participate in this study. Medical ethical committees in these centers approved the study protocol where applicable and patients gave their informed consent before participation. In addition, a fixed sample of 50 RA patients were recruited through a known community (MediGuard.org) with pre-existing consent to contact for research purposes in the United States of America (US).⁽²⁵⁾ Eligible patients had to speak, read and write the local language sufficiently to understand the study and complete the survey (physician's judgement where applicable). In addition, all patient representatives who attended OMERACT 12 in 2014 were invited to participate by email⁽²⁶⁾, as well as all the patients who participated in one of the 9 focus group discussions prior to this study.⁽²³⁾

Data collection process: In Bristol, Amsterdam, Vienna and Copenhagen, the surveys and reply-envelopes were distributed in the clinic; in Paris and the US they were distributed by email. As the word 'remission' is a common word in the English language and might imply certain presumptions, this term was not used during the recruitment and data collection phase. Instead remission was formulated as 'disease activity as good as gone'. Where available in routine practice, a recent 28-joint count, physician global assessment and acute phase reactant were collected from the hospital files, within a period of 3 months before or after completion of the survey.

The survey: The goal of the survey was to determine a short list of the most important items that reflect remission according to patients with RA. The survey (**online appendix I**) contained all 26 domains of remission that were identified in previous focus group discussions in Bristol, Vienna and Amsterdam⁽²³⁾, formulated as items which patients were asked to rate for importance. In addition, patients were asked to add any missing aspects of remission in free text fields. During the qualitative study patients had indicated that demographic and disease specific aspects were important to interpret the data, and so information on age, gender, disease duration, co-morbidities and accrued joint damage was collected, all in a self-reported manner using the Routine Assessment of Patient Index Data 3 (**RAPID3**), with remission cut-off defined as 3 or less on a scale of 0 to 30⁽²⁷⁾. Where possible, the Clinical Disease Activity Index (**CDAI**) was calculated, with remission cut-off ≤ 2.8 ⁽²⁸⁾.

German, French, Danish and Dutch versions of the survey were prepared by translation and back-translation by the research team to verify the terminology. The language used was carefully written, based on the focus group terminology, and was reviewed by patient research partners (WH, MV and BD) to ensure that the instructions were clear to patients and that each item was understandable in terms of the RA symptoms and experience.

To reduce any order effect on decision-making, two versions of the survey were distributed in the clinics (but not for the emailed assessments) with the domains and the items within them randomly ordered.

Analysis: Patient characteristics were summarised as mean (standard deviation (SD)) or median (interquartile range (IQR)) where applicable. Fulfilment of RAPID3 remission, ACR/EULAR remission and CDAI remission was compared with the patients' self-reported judgment of remission ('disease as good as gone': no/yes) to determine concordance between the clinical definition of remission and the patient's judgment of remission, quantified using the kappa measure for agreement (with 0.75 as excellent, 0.40 to 0.75 as fair to good, and below 0.40 as poor); 2 by 2 tables and chi-square tests were used.

In order to determine the importance of domains, first, frequency of a particular domain mentioned in the top 3 was calculated. Second, domains that >30% of patients identified as 'not important' were removed. The remaining domains were sorted on the percentage of patients that evaluated a particular domain as 'essential'.

In order to evaluate robustness of the results, data were stratified by the influential factors as identified by patients in the qualitative study, including self-reported age (above or below 50 years), gender (male/female), disease duration (more or less than 2 years), comorbidity (no/yes) and accrued joint damage (no/yes), to see if these factors influence the patient perspective on remission. In addition, data were stratified by country and location of filling out the survey (clinic visit or by email). Chi square tests were used to determine statistical significance (if $p < 0.05$) where relevant.

RESULTS

A total of 274 patients completed the questionnaire: 54 from the Netherlands, 33 from the UK, 51 from Austria, 43 from Denmark, 43 from France, and 50 from the US. Response rate in the Netherlands and France was 59% and 42% respectively.

The population was typical for RA (**Table 1**), with 75% females, mean (SD) age of 57 (13) years, disease duration of 12 (9) years with 10% disease duration <2 years and self-reported erosive disease of 41%. Remission as reported by the patient was present in 38% and according to the RAPID3 in 30%. Concordance was reasonably good: of the patients in self-reported remission, 61% were in RAPID3 remission; of the patients in RAPID3 remission, 79% were in self-reported remission (observed agreement, 79%; kappa 0.54).

In the subgroup of patients with available clinical data ($n=119$), 42% were both in self-reported and in RAPID3 remission, and 24% in ACR/EULAR remission. Here concordance was good only in one direction: of patients in ACR/EULAR remission 86% were in self-reported remission (observed agreement, 76%; kappa 0.48) and 97% were in RAPID3 remission (observed agreement, 81%;

kappa 0.59); but only 50% of patients in self-reported remission and 56% of patients in RAPID3 remission were in ACR/EULAR remission (**Table 2**). Of the patients with available CDAI (n=47), CDAI remission was present in 21%. Of these, all patients were in RAPID3 remission, 80% was in self-perceived remission (observed agreement, 70%; kappa 0.35) and 70% in ACR/EULAR remission (observed agreement, 81%; kappa 0.48).

Table 1: Patient characteristics by site, all self-reported

	All patients (n=274)	Bristol (n=33)	Vienna (n=51)	Amsterdam (n=54)	Paris (n=43)	Copenhagen (n=43)	US (n=50)
Gender (% female)	75	73	75	76	79	61	82
Age in years (mean (SD))	57 (13)	62 (14)	54 (14)	60 (12)	53 (13)	56 (13)	56 (11)
Disease duration in years (mean, (SD))	12 (9)	8 (8)	11 (9)	14 (12)	12 (8)	13 (9)	11 (7)
Experience with remission (% yes)	74	52	88	76	72	91	60
Currently in remission (% yes)	38	18	45	46	51	44	16
Self-reported deformities (% yes)	41	97	41	54	19	30	52
Pain (VAS 1 to 10)	3.5 (2.7)	5 (2.3)	2.4 (2.6)	3.1 (2.7)	3.4 (2.4)	2.6 (2.5)	5.0 (2.7)
PtGA (VAS 1 to 10)	3.6 (2.7)	4.9 (2.3)	3.2 (2.8)	3.1 (2.5)	3.2 (2.6)	2.3 (2.0)	4.9 (2.9)
RAPID3 (0-30)	8.9 (6.4)	13.6(5.2)	6.4 (6.2)	8.3 (6.3)	8.0 (5.4)	6.2 (5.5)	12.6 (6.2)
RAPID3 near remission (% yes)	30	3	51	37	23	44	8
Ability to distinguish pain due to inflammation vs damage (% yes)	60	52	68	70	51	62	54

Table 2: Concordance between two patient-derived remission definitions and the ACR/EULAR remission definition (count (percentage))

	Self-reported remission			ACR/EULAR remission		
	Yes	No	Total	Yes	no	Total
ACR/EULAR remission	yes 25 (51)	4 (6)	29 (24)			
	no 24 (49)	66 (94)	90 (76)			
	total 49 (100)	70 (100)	119 (100)	Yes	no	Total
RAPID 3 remission	yes 63 (61)	17 (10)	80 (30)	28 (97)	21 (24)	49 (42)
	No 40 (39)	151 (90)	191 (70)	1 (3)	67 (76)	68 (58)
	total 103(100)	168 (100)	271 (100)	29 (100)	88 (100)	117 (100)
CDAI*	Yes 8 (40)	2 (7)	10 (21)	7 (54)	3 (9)	10 (21)
	No 12 (60)	25 (93)	37 (79)	6 (46)	31 (91)	37 (79)
	total 20 (100)	27 (100)	47(100)	13 (100)	34 (100)	47 (100)

* no data shown for CDAI vs RAPID3, as overlap was 100%

Patients that considered themselves in remission (n=103) had a mean patient global assessment of disease activity of 1.5 (1.5) and disease duration of 10 (7) years) in contrast to 4.8(2.5) and 13(10) years for those not in self-perceived remission (n=171).

Most important domains

The most often mentioned domains in the top 3 were: pain (67%), fatigue (33%) and independence (19%) (**Table 3**).

Only one domain, 'The way other people see me', was regarded by more than 30% of patients (59%) as 'not important' and was removed from further analyses. The percentage of patients that choose a certain domain in their top 3 is shown in **supplementary file II**. Domains that were most frequently rated as 'essential' to characterise a period of remission were highly similar: pain (60%), being mobile (52%), physical function (51%), being independent (47%) and fatigue (41%) (**Table 4**).

Pain needed to be less (13%), almost gone (42%) or gone (45%) to reflect remission. Similar patterns were seen for fatigue (23%,40%,37%). Independence needed to be better (16%), almost normal (31%) or normal (53%), with similar patterns for mobility (16%,35%,49%) and physical functioning (14%,29%,57%).

Stratifications

Age: Importance of pain and fatigue were similar in patients under and over 50 years of age; however, independence was reported more frequently in the top 3 by patients over 50 (24%) as compared to patients under 50 years of age (12%) (p=0.03).

Disease duration: Importance of pain and fatigue were similar in patients with early (≤ 2 years) vs long standing disease; numerically, independence was reported more frequently in the top 3 by patients with longstanding disease (21%) as compared to patients with early disease (12%) (p=0.40).

Country: There were slight differences in the choice of a top 3 in the different countries (**Table 3**), although pain was the number one domain in all countries. Pain was mentioned in the top 3 by 65%, 69%, 52%, 74%, 92% and 79% in the UK, Austria, Netherlands, France, US, and Denmark respectively (X^2 p=0.001). Likewise, fatigue was among the top 3 (48%, 16%, 30%, 51%, 40%, 29%, 35% (X^2 p=0.005)) and to a lesser extent independence (39%, 20%, 27%, 21%, 6%, 17% and 21% (X^2 p=0.01)). Bristol, Amsterdam and Paris had the same top 3 as that of the total group, but in Vienna, fatigue was replaced by stiffness and in both the US and Copenhagen, independence was replaced by swelling.

Domains that were most frequently rated as 'essential' to characterize a period of remission were the same in the total group and in Bristol, while in Vienna fatigue was replaced by mental power, in Amsterdam fatigue was replaced by activities of daily living, in Paris fatigue was replaced by family role, in the US physical function was replaced by mobility and in Copenhagen fatigue and independence were replaced by work and activities of daily living.

Version of the survey: The majority completed version 1 of the survey (79%). Patients that completed version 1 of the survey (appendix 1) reported pain in their top 3 more frequently (77%) compared to patients that completed version 2 of the survey (54%) (p=0.02). A similar pattern, although not significantly different, was seen for independence, reported by 19% in version 1 and 29% in version 2. However, of the patients that completed version 2 of the survey, the most often mentioned domains in the top 3 were still pain (55%), fatigue (33%) and independence (29%).

Other: There were no differences in choice of a top 3 between male and female patients; between patients that reported joints with vs without strongly reduced mobility, deformities, or joint replacement surgery; between patients that reported to have been diagnosed with other diseases; or between patients that completed the survey during their clinic visit, compared to patients that completed the survey electronically (at home).

Table 4 gives an overview of the numerical differences of domains rated as essential for all stratifications.

Table 3: Most important domains by site

	Bristol	Vienna	Amsterdam	Paris	Copenhagen	US
Top 3						
1	Pain	Pain	Pain	Pain	Pain	Pain
2	Fatigue	Independence	Fatigue	Fatigue	Fatigue	Fatigue
3	Independence	Stiffness	Independence	Independence	Swelling	Swelling
Domains rated as essential (%)						
1	Pain (67)	Indep (53)	Pain (57)	Pain (72)	Pain (51)	Pain (70)
2	Fatigue (66)	Phys func (51)	Phys func (46)	Mobility (72)	Phys func (49)	Fatigue (60)
3	Mobility (66)	Pain (47)	ADL (43)	Phys func (67)	Work (49)	Indep (58)
4	Indep (50)	Mobility (43)	Indep (41)	Family (56)	Mobility (46)	Swelling (56)
5	Phys func (50)	Mental (43)	Mobile (39)	Indep (56)	ADL (44)	Mobility (54)

Indep: independence; Phys func: physical functioning; ADL: activities of daily living

DISCUSSION

This survey study identified the three most important domains of patient perceived remission, based on preceding qualitative research on the patient perspective on remission in RA: the absence or reduction of pain and fatigue and the improvement or maintenance of independence.

Pain is the most predominant PRO assessed in rheumatic diseases, present in all core sets and frequently inquired after in clinical practice.⁽²⁹⁾ Fatigue has been acknowledged as an essential PRO in recent years and is recommended to be reported in RA clinical trials;⁽¹¹⁾ however, independence is not a common PRO in rheumatology. We are not the first to report on independence as an important domain for patients with RA; a recent Czech study⁽³⁰⁾ reported a significant difference between the healthy population and RA patients in level of independence. In addition, qualitative work performed in Bristol generated the Rheumatoid Arthritis Patient Priorities for Pharmacological Interventions (RAPP-PI) core set to complement the existing professional core sets.⁽³¹⁾ This patient-driven study also identified independence as one of eight priority outcomes of pharmacological interventions in RA. In a Swedish qualitative study evaluating the patient perspective on benefits of RA treatment, independence was identified as a theme covering domains as management of daily activities, care for oneself and for one's family, being able to work and enjoy leisure time.⁽³²⁾

In contrast, in the context of our remission work, independence emerged as a separate domain, grouped in the theme 'decreased impact of RA'. When reviewing our qualitative work, the domain independence seems mainly related to physical functioning, i.e. 'the ability to do things you have to do and not have to ask others to do things for you'. However, influence of other domains and factors like ability to work, performing one's family role and comorbidities is highly likely and warrants further study. Similar overlap might exist between other domains while this could have been avoided by grouping of domains into larger themes. Indeed, if we would have grouped the domains socialize, family role, work and leisure into one domain 'participation', the ratings for this grouped domain would have exceeded that of independence in 2 out of 6 sites. However, we have chosen to present all 26 domains in our survey, using patient quotes from focus groups, so that patients could optimally relate to the domains. In the case of independence, this domain was chosen more often as a top 3 domain than related domains such as physical functioning, mobility, work or activities of daily living. However, these related domains scored high in the rating of essential domains, with mobility ranked second, physical function third, independence fourth and fatigue fifth. As our objective was to identify the three most important domains for RA patients to define a state of remission, we have chosen to rely on the report of top 3 domains, knowing that the ranking of essential domains pointed in a highly similar direction and that independence covers aspects of function/mobility.

Some differences exist between different patient groups when stratified for age, gender, disease duration and the presence of comorbidities and damage; for example performing one's family role was more important to younger patients compared to older patients. These differences were already predicted by patients during the qualitative phase and are confirmed by this survey study.

In addition, some differences exist in the procedure of filling out the survey; we sent out two versions of the survey with a different (random) order of the domains, to reduce any order effect on decision-making. Although there was a difference in frequencies of domains reported in the top 3 between patients that completed version 1 versus patients that completed version 2 of the survey, the three most often reported domains were still pain, fatigue and independence. It seemed that the higher the domain was listed in the survey, the more likely that patients would include the domain in their top 3, even though the top three was a separate section at the end of the survey. However, as the top 3 remained unchanged across the different versions, this order effect had no influence on the patients' choice for the three most important domains.

It can be questioned whether other domains besides the 26 identified from focus groups in Bristol, Amsterdam and Vienna would have emerged when groups were organised in Paris, Copenhagen and the US; the survey allowed patients to add additional domains. Seven patients used this opportunity, but this did not result in new domains, suggesting that the survey was comprehensive. Yet, this does not indicate generalisability of our results to countries beside those studied here.

The majority of patients indicated they needed their symptoms to be 'gone' instead of 'less' or 'almost absent' in order to reflect remission. Yet, patients that indicated themselves as currently in remission had a mean patient global assessment of 1.5. It remains a point of discussion how this relates to the ACR/EULAR remission definition, which requires that the patient global assessment of disease activity can be no greater than 1. Interpreting these data, one could argue that a score of less than 2 on a visual analogue scale from 0 to 10 equals 'gone' from a patient perspective. Alternatively, to adhere to the rule of 1, one could allow rounding to one for scores that go up to 1.5. Interesting is the contrast between patients' rating of fatigue as a top 3 priority, yet needing it to be less (23%), almost gone (40%) or gone (37%) to reflect remission. This is different for the

other 4 important domains, in which the majority feels a certain domain needs to be gone, rather than almost gone or less. Perhaps fatigue is a domain that seriously impacts the lives of people with RA, but is somehow more manageable or acceptable than for example pain.

Strengths of this study include the geographical spread of the patient sample as well as the dual analysis of domains, either within the top 3 of importance or rated most frequently as essential. The robustness of the results across countries and response modes enhances the reliability of the results.

A weakness of this study is that the response rate wasn't registered at every site, which might indicate that a selection of highly motivated patients was studied. When looking at the demographic characteristics, a heterogeneous pattern is observed, with a wide range in patients age, disease duration and remission experience. The size of our study population does not allow for extensive subgroup analysis. Yet the uniformity in a choice for a top three of patient important domains strengthens the importance of these three domains and suggests that these are - to a certain level - independent of other patient characteristics.

Another weakness of this study is the absence of extensive clinical data collection, which prohibited us from linking our results with other frequently used disease activity measures like the Clinical and Simplified Disease Activity Indices (except in a few patients). However, this work served primarily to identify the common top 3 of patient domains that need to be studied further in comparison with clinical measures.

With this in mind, a validation study has been initiated, studying measurement instruments for the three most important domains of patient perceived remission identified in this study in relation to clinical outcome. It is anticipated that the results of the validation study will inform whether any of these three domains add important information to the ACR/EULAR remission criteria.

In summary, this survey study identified the three most important domains of patient perceived remission, based on preceding qualitative research on the patient perspective on remission in RA. Follow up research has been initiated to identify valid measurement instruments for these domains and quantify the contribution to the ACR/EULAR remission criteria.

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COMPETING INTERESTS

The authors have no competing interests regarding this work

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Table 4: Percentage of patients that rate a domain as essential to be reduced or absent / improved to define remission

	Total	Age		Gender		Disease duration		Comorbidities		Damage		Place of filling out		Version	
		≤50	>50	male	female	≤2yr	>2 yr	no	yes	no	yes	clinic	home	1	2
N	274	83	190	70	204	27	244	131	143	160	113	97	177	216	58
Pain	60	71	56	55	62	57	61	62	59	59	62	56	62	62	54
Fatigue	41	49	38	33	44	37	42	37	45	43	38	37	44	41	42
Physical funcion	51	58	48	49	52	59	51	53	50	52	51	52	51	52	47
Independence	47	55	43	43	49	44	48	45	50	49	45	41	51	48	44
Mobility	52	60	48	43	55	44	53	53	51	57	46	55	51	55	42
Swelling	38	48	34	30	41	41	39	39	38	41	35	37	39	38	40
Morning stiffness	24	29	22	20	25	0	15	24	24	21	28	22	25	26	18
Stiffness	30	36	27	27	31	15	31	31	30	28	33	30	30	31	28
Variability	23	26	21	20	23	15	23	21	24	23	23	21	23	23	19
Unpredictability	25	30	21	17	27	37	24	24	25	27	21	21	27	26	19
Flare	39	51	33	27	42	37	38	41	37	42	34	43	36	41	28
Dmard usage	31	30	32	29	32	26	31	29	33	33	30	38	27	34	20
Painkiller usage	26	31	24	21	28	26	26	27	25	26	27	29	24	28	19
Mood	21	21	21	9	25	30	20	17	24	23	18	18	22	20	23
Socialize	30	34	29	29	31	50	29	27	33	36	23	25	33	30	31
Strength	27	29	26	26	28	44	53	28	27	28	27	24	29	30	16
Grip	34	35	34	33	35	33	27	38	31	35	34	31	36	33	39
Fine motor skills	36	43	33	31	38	48	35	37	35	36	36	31	39	36	35
Activities of daily living	39	46	35	31	41	48	38	42	35	42	34	41	37	43	23
Family role	37	54	30	29	40	33	37	41	33	45	26	33	39	37	36
Work	33	51	25	30	34	27	33	33	32	41	22	33	33	35	25
Doing leisure time activities	27	36	23	27	27	30	27	30	25	33	20	25	29	30	18
Feeling as normal as other people around you	26	35	22	19	29	33	26	25	27	30	21	22	29	30	11
Being treated as normal as others by people around you	28	36	24	19	31	33	28	29	27	30	25	22	31	30	20
Mental power	40	46	37	29	44	48	39	41	39	44	35	36	42	41	35