Abstract

Functional disability and quality of life in rheumatoid arthritis (RA) are key outcomes that determine patients' demand for care, and influence their compliance and satisfaction with treatment. In the past decade, there has been a shift from physician-focused assessment toward methods based on the postulate that patients can better report their perceptions of health impairment. There are several disease-specific and generic instruments available that have proven valuable in outcome testing in RA. While there are several obvious advantages to patient self-assessment, clinicians may be reluctant to adopt these measurements. Functional assessment testing will be easier to implement if physicians have access to computer resources for quantitation of disease outcomes and if normative data can be provided to make interpretation clear. Despite current limited access to computer resources and normative data, functional disability and quality of life assessment of RA should be encouraged in clinical practice because it fosters better patient–physician relations and provides much needed long-term outcome information on drug therapy beyond clinical trials.

KEY WORDS: Functional assessments, Functional disability, Quality of life, Rheumatoid arthritis, Disease-specific and generic instruments.

Rheumatoid arthritis (RA) is a chronic, potentially debilitating disorder with an unpredictable disease course. Progression of RA may result in irreversible damage with associated lifelong functional impairment. Radiological evidence of joint erosion can occur as early as the first 2 yr of disease [1, 2]. RA is characterized by pain, and by the progressive loss of mobility and the ability to care for oneself. The consequences of RA on the quality of life can be devastating. Functional disability is an important component of the patient’s perception of his or her disease and should be a key factor in the development of management strategies. Socioeconomic consequences of functional disability are severe. In Canada, the economic costs of RA are comparable to those of cancer, and in the USA they approximate those of coronary artery disease and cancer [3]. Analysis of factors contributing to work disability, defined as unemployment due to ill health, demonstrated that the proportion attributable to rheumatism or arthritis approximated 20% in the population of Finland [4]. Musculoskeletal disorders were responsible for 14–17% of workdays lost in Great Britain and 13–15% of disability or sick leave in France and Sweden [5, 6]. Rheumatoid arthritis places a major financial strain on societies, both in terms of workdays lost and in utilization of health care services. Yelin and co-workers reported that in almost 50% of patients with RA the duration of time to work disability was 10 yr after disease diagnosis [7]. A cross-sectional study of RA patients in a clinic setting reported work disability of 57% at 10.7 yr [8]. In a study of patients with early RA, work disability occurred at ~2 yr after disease onset in 42% of patients [9]. Wolfe and Hawley reported that individual family income can be reduced by an average of 35% over the course of the illness [10]. Most recently, Sokka and colleagues reported a work disability rate of 44% at 10 yr after diagnosis of disease [11].

The serious consequences of RA, both to the patient and to society, demand accurate, reliable outcome measurement testing. There are several instruments available that can be used to assess functional disability due to RA. These instruments are an important component of the overall assessment of the health status of a patient. Functional disability tests, combined with clinical and radiological information, can provide data to allocate health care resources better and direct more successful management strategies. Therapeutic regimens for RA have focused increasingly on early use of disease-modifying anti-rheumatic drugs (DMARDs). Functional disability testing has been an important aid in assessing the value of the early use of these drugs [12]. A study evaluating i.m. gold (sodium aurothiomalate) treatment in patients with RA showed significant improvement in Health Assessment Questionnaire (HAQ) scores when the therapy was initiated early in the disease [13]. A large
prospective study of 2888 patients with RA demonstrated that increased DMARD usage was strongly associated with decreased long-term disability index values and improved HAQ scores [14]. Other investigators have used functional disability testing to evaluate drug efficacy. Studies have also demonstrated that consistent use of DMARDs is associated with a reduction in long-term disability [12, 15, 16]. Functional disability testing is proving to be a valuable resource in the assessment of RA therapy. The Outcome Measures in Rheumatoid Arthritis Clinical Trials (OMERACT) committee has played a large role in these efforts, including specific recommendations of outcome measures for use in clinical trials of RA [17]. The instruments used to test functional disability are useful only if they provide valid, reliable information and are sensitive to changes over the course of observation. Functional disability and quality-of-life indices, which measure the effects of RA on patients’ lives, are used to evaluate therapies and to measure the course of disease. Quality of life, as defined by the World Health Organization, is

an individual’s perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns. It is a broad-ranging concept affected in a complex way by the person’s physical health, psychological state, level of independence, social relationships, and their relationship to salient features of their environment. [18]

A recent study confirmed that coping strategies and illness perceptions have a great influence on health outcome in patients with RA [19]. The lack of a focused operational definition for quality-of-life measures has contributed to the development of several different instruments, not all of which have proven valid. This paper evaluates the functional assessment measures available, including generic and disease-specific instruments. The knowledge acquired over decades from research and observation can be made applicable to clinical practice.

Focus on patient self-assessment

Several measures were developed in the 1970s and 1980s establishing rheumatology as a leading discipline in the development of functional assessment instruments. Early methods, such as that of Steinbrocker and the American College of Rheumatology (ACR) revised criteria, focused on physician evaluation. In rheumatology, patient outcomes may not be adequately described by evaluating clinical, laboratory and radiographic data. Observers have reported that patient self-assessment of poor global status often precedes changes in clinical parameters [20]. Interest in quality-of-life outcomes has shifted, in the 1980s, to methods based on the postulate that patients can better represent their perceptions of health improvement. There are a number of disease-specific instruments in rheumatology that measure functional disability, including the HAQ [21], the Arthritis Impact Measure-

ment Scale (AIMS) [22] and the McMaster Toronto Arthritis Patient Preference Disability Scale (MACTAB) [23].

Generic instruments such as the Nottingham Health Profile (NHP) [24], the Groningen Activity Restriction Scale (GARS) [25] and the Short Form-36 Health Survey Questionnaire (SF-36) [26] are designed to measure general aspects of disease and are therefore less accurate than the disease-specific questionnaires. They are useful in that they can compare outcomes among different diseases or between those afflicted with disease and the healthy population. The NHP and SF-36 have been used in evaluating RA [27–29].

The length of the forms is a consideration and those requiring 20–30 min of patient time may hinder use due to time requirements. It would be advantageous to have a short form that is both valid and sensitive to change. There are several commonly used instruments that have 100 questions or less (Table 1). The shortened AIMS2 is referred to as the ‘AIMS2-SF’ (for short form). Items were selected from AIMS2 to develop the shortened form (see Appendix) using a two-panel approach with input from both specialists and patients [30]. Steps were taken to preserve the five original components of the AIMS2, and the content validity of the short form was assessed by the two panels.

Development of the AIMS2-SF raised concerns over its ability to capture the same level of disability with the accuracy of the longer AIMS2. To address this problem the AIMS2-SF and AIMS2 were compared using a comprehensive expert-based approach and psychometric property testing [30]. Patients completed the AIMS2 prior to and after 3 months of methotrexate therapy. Factor analysis demonstrated preservation of the five-component structure. Baseline scores in each of the five components were close to the original (Fig. 1). Convergent validity; test/re-test reproducibility and sensitivity to change at 3 months were close to the original AIMS2 [30].

Cross-cultural adaptation

To allow comparisons with studies performed in different countries, questionnaires need to be cross-culturally adapted. Physicians who routinely treat non-English-speaking patients are limited by current ‘English’

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Domains assessed</th>
<th>No. of questions</th>
<th>Time to fill Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIMS</td>
<td>9</td>
<td>49</td>
<td>20</td>
</tr>
<tr>
<td>AIMS2</td>
<td>12 in 5</td>
<td>78</td>
<td>30</td>
</tr>
<tr>
<td>AIMS2-SF</td>
<td>5</td>
<td>26</td>
<td>5</td>
</tr>
<tr>
<td>SF-36</td>
<td>8</td>
<td>36</td>
<td>5</td>
</tr>
<tr>
<td>HAQ</td>
<td>8</td>
<td>20</td>
<td>2.5–5</td>
</tr>
<tr>
<td>MHAQ</td>
<td>8</td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

*Domains refer to mobility level, walking and bending, hand and finger function, self-care, household tasks, social activities, support, pain, work, level of tension, and mood.
Several guidelines have been proposed to preserve semantic, idiomatic, experimental and conceptual equivalents in translation efforts [31]. These guidelines include developing several translations with back-translations produced by qualified people. A multidisciplinary committee review should compare the source and final versions, and modify or reject inappropriate items. Additionally, the translation should be fully comprehensible to the public for whom it is intended and cross-cultural equivalents should be verified. Pre-testing of the questionnaire should be carried out using bilingual people when possible and scores should be weighted if necessary. While transcultural adaptation of a test instrument will preserve content, further studies are needed to assess psychometric validity.

A cross-cultural version of the AIMS2 instrument was adapted for French-speaking people according to the above guidelines [32] and tested in 127 RA patients on methotrexate therapy. Factor analysis of the French version identified the same scales as the AIMS2 with few exceptions. Convergent validity of the physical and symptom components of the French version was demonstrated by significant correlation in four of five possible comparisons of clinical and laboratory features. Reliability, as measured by an intraclass correlation coefficient, ranged from 0.68 to 0.90 and was acceptable for all but three of 12 scales. The AIMS2 for French-speaking people proved to be valid, reliable and sensitive in a group of patients on drug therapy.

The HAQ has also been translated to allow its use in non-English-speaking countries such as Sweden, Russia, Scandinavia, Brazil, France, The Netherlands, Austria, Spain and Norway [33]. As with the AIMS2 translations, care was taken to ensure that when translated, individual items were adapted to cultural differences.

Disease-specific vs generic instruments

Not all instruments capture the same components, even if they are labelled ‘functional disability assessment’ or ‘health-related quality assessment’. The HAQ, which is disease specific, was compared with the GARS, an instrument developed to measure disability but not specifically designed for RA, in 634 patients with RA [34]. For patients who worsened according to the Ritchie Articular Index criteria for change, the HAQ demonstrated a significant change but the GARS did not. For patients who improved, both the HAQ and the GARS showed a significant change between baseline and end-point (4 yr). The results indicated that the psychometric properties of both instruments were very good; correlation between the scales was high (0.84). However, the HAQ yielded significantly higher scores (33%) for women than for men (Fig. 2). This difference was of sufficient magnitude to make it necessary to take sex into account when using this instrument in assessment. The relative efficiency of the GARS was less than that of the HAQ.

Other generic and disease-specific instruments have been evaluated for use in RA. In 233 RA patients [29], the SF-36 scale proved to be reliable and to correlate with ACR disease activity measures. In another comparative study of 137 RA patients, the HAQ and SF-36 showed significant association among physical functioning, disease activity, severity and co-morbidity, although there was considerable variability among patients [28]. When the Modified HAQ (MHAQ) and the AIMS2

Fig. 1. Effectiveness of short vs long forms. Baseline score in each component by the AIMS2 short form (AIMS2-SF) and long form (AIMS2) questionnaires [30]. Patients at study entry completed both the long form (57 items) and the short form (26 items) of the questionnaire. The five components assessed were: (1) physical (mobility level, walking and bending, hand and finger function, self-care, household tasks); (2) symptom (arthritis pain); (3) affect (level of tension, mood); (4) social interaction (social activities, support from family and friends); and (5) role (work or employment). The scores on the AIMS2-SF were very close to those on the long form (% difference).

Fig. 2. Gender difference of the HAQ vs the GARS [34]. Patients (n = 634; 69% female) were followed over a 4 yr period. The HAQ and the GARS were administered annually. The HAQ was completed by self-report, while the GARS was filled out by an interviewer. The results of scores are shown in men and women. Women obtained higher scores than men when assessed by both instruments. The difference in scores between women and men was smaller on the GARS than on the HAQ.
were compared with the SF-36 [35] in a cohort of 595 RA patients, there were no significant differences in responses assessed among the three instruments. The authors concluded that disease-specific instruments may be more appropriate for RA [35].

Despite some limitations, generic measures can provide an additional mode of assessment for a broad-spectrum evaluation of disease expression. It is important that outcome measures capture the range of functional, social and emotional status in RA. The Rheumatoid Arthritis Quality of Life (RAQOL), for example, is a relatively new instrument with excellent psychometric properties [36]. In an OMERACT endeavour to determine the sensitivity of generic quality-of-life instruments, the RAQOL demonstrated the largest percentage improvement (29%) after 6 months of RA therapy [37]. Further studies are needed to evaluate the benefits of generic vs specific measurements over long-term treatment in RA.

Long-term outcome studies

Several anti-rheumatic drugs have demonstrated a short-term reduction in the progression of functional disability or in the level of disability. However, more long-term outcome data are needed for meaningful clinical assessment. Additionally, there is a lack of an operational definition of the minimum meaningful effect of clinical and functional disability. Experience in long-term outcome measures has been gained from prospective studies in the USA, Canada and Europe.

A prospective study by Fries and colleagues [14] evaluated 2888 RA patients within the Arthritis Rheumatology Medical Information System for up to 20 yr (mean 9 yr). The purpose of the study was to assess the association between DMARD use and long-term functional outcome. Disability was measured by the HAQ disability index. Results indicated that increased DMARD use was strongly associated with better long-term HAQ disability index values ($P < 0.0001$).

Another longitudinal prospective study investigated the rate of work disability in 823 RA patients followed for 18 yr [10]. Work disability occurred in 25% of RA patients at 6.4 yr and in 50% at 20.9 yr of disease onset, and could be predicted by almost every variable studied. Disability could be predicted by work characteristics at early stage. Abnormalities in erythrocyte sedimentation rate, HAQ disability and pain were the best predictors of work disability after work and demographics were taken into account [10]. These studies emphasize the valuable data that can be ‘mined’ from established databases. The databases can make resources quickly available and may be available to the practitioner in the future. The results underscore the important contribution functional assessment instruments make toward understanding progression of RA and the impact of the disease on patients.

The OMERACT filter

Both general and disease-specific test instruments are increasingly being incorporated into longitudinal and observational studies and into drug evaluation trials. Test instruments have become an additional means of assessing adverse events in clinical trials [38]. Unfortunately, few instruments achieve a perfect level of validity [39]. Concerns over the use of test instruments that do not fulfil the criteria for valid outcome measurement have prompted clinicians and researchers in rheumatic diseases to establish validation guidelines for self-assessment questionnaires.

The OMERACT initiative developed a paradigm called the OMERACT filter that emphasizes key aspects of psychometrics relating to acceptability of test instruments [17]. Measurement properties that reflect the OMERACT filter include truth, discrimination and feasibility, and encompass attributes associated with suitable test instruments. The truth of an instrument refers to its content and construct validity: does the instrument measure what it is supposed to measure? Discrimination refers to an instrument’s reliability and sensitivity to change; the instrument must discriminate between different levels of disease and changing levels of disease in patients over the course of an illness. Feasibility refers to aspects of the test that make it easy for the patient to understand and for the physician to score and evaluate. These guidelines can be used to evaluate the adequacy of test instruments in RA studies.

At the OMERACT II conference, concerns were raised over the validity of generic test instruments used to assess functional disability in rheumatoid diseases. Generic instruments may fulfil requirements for validity and reliability, but differ conceptually in responsiveness to the specific aspects of rheumatoid diseases. A systematic review of the literature from 1988 to 1997 was carried out to identify randomized controlled studies of rheumatoid diseases that used generic quality-of-life instruments as part of the clinical evaluation [39]. Thirteen reports of 10 randomized controlled trials were selected and evaluated. It was determined that the studies were descriptive and not interventional, and that there was no evidence that any of the generic instruments passed the requirements of the OMERACT filter.

Research vs clinical practice

Research studies generally have objectives that differ from those in clinical practice. Research study goals are directed toward demonstrating drug efficacy in a group of selected patients. Studies are carefully designed to maintain integrity by avoiding misconduct, preserving blinding and maintaining quality control over the course of the study. In practice, the physician monitors an expected outcome in an individual in a less constrained manner than that used by the more structured research protocols. This may be one of the limitations hindering transfer of results from research to individual practice where monitoring is more demanding of the instrument. Despite the differences, both research and clinical practices can take advantage of information from functional and quality-of-life assessment instruments to broaden
their perspective and strengthen management strategies. Functional and psychosocial measures such as anxiety and depression can affect the outcome measures of disease.

Patient self-assessment should be made an essential part of comprehensive patient evaluation along with clinical data. The use of functional assessment instruments in clinical practice has positive aspects in terms of patient perception and understanding. Quality-of-life questions are an expression of the physicians’ concern for the daily well-being of the patient. Both written and verbal communication between physician and patient are important and complement each other to encompass more aspects of disease impact. This should give a better appraisal of the patient’s perception of relative health. Health status questionnaires have been incorporated into rheumatological clinical practice with great success [20]. Both physicians and patients have benefited from the use of quality-of-life assessments in other disciplines such as cardiology [40] and cancer [41, 42]. Benefit would be based on whether physicians modify patient management based on functional status in rheumatology, but this remains to be demonstrated.

There are certain issues that must be addressed before implementing functional assessment instruments in clinical practice. Feasibility is possible if the questions are presented in an unambiguous manner. Even with valid instruments, usage may be limited to the literate and non-visually impaired without greater involvement of the physician or staff. The AIMS2 has been successfully shortened; the shortened AIMS2-SF was carefully constructed to maintain important aspects of the original questionnaire [30]. Modifying forms without these strict observances carries the risk of developing a questionnaire that does not encompass the full scope of the disability, thus compromising its validity. The physician may find that administration of a functional assessment questionnaire is too time consuming to be practical or that the turnover time to get results is lengthy. Clinicians may also question the merits of patient self-assessment providing subjective data when laboratory and radiological tests are routinely available.

Testing functional assessment in clinical practice needs to become part of the cultural routine, i.e. physicians need to value and become familiar with the questionnaires. There are several practical issues involved in implementing quality-of-life testing. Scoring of the test is not immediate, and there is a clear need for the development of available computer-based resources so that tests can be easily scored in the office. Interpretation of the level of functional disability presents some difficulty in that there is no clear separation between various types of RA and the level of severity of the disease. Self-assessment of functional disability and quality of life remains a very complex process, even with help from the physician. It should be regarded as an essential medical test along with blood pressure measurement, magnetic resonance imaging or electrocardiogram.

Future directions

Instruments assessing functional disability in RA patients are valuable tools providing information for both the health care system and for the treating physician. Outcome measures are being used as part of drug evaluation trials, both to assess patient response and to monitor adverse events. Results of functional assessment questionnaires will be used increasingly to direct allocation of health care resources. Quality-of-life instruments are useful if they provide valid, reliable information and are sensitive to changes over the course of observation. Physicians can quantify disease outcomes and evaluate drug therapies using valid measures. Physician–patient communication can be improved by allowing patients the means to express their perceptions of the impact of the disease on their daily lives. For the practitioner, functional disability assessment measures can aid in clinical decision making. Integration of quality-of-life testing into clinical practice requires that the questionnaires be appropriate for the cultural background of the patient, simple to use and easy to interpret. To be meaningful, results should be available to the physician within a reasonable time frame. In the future, the clinician should have access to computerized databases where results from clinical trials and outcome measures would be a source of valuable information. This expanded base of knowledge could help develop context-specific values to monitor changes in patient health and evaluate the level of severity of disease.

References

3. Badley EM. The economic burden of musculoskeletal disorders in Canada is similar to that for cancer, and may be higher. J Rheumatol 1995;22:204–6.
Appendix: the AIMS2-SF questionnaire

**ARTHRITIS IMPACT MEASUREMENT SCALES 2 Short Form**

**INSTRUCTIONS:** Please answer the following questions about your health. Most questions ask about your health during the past 4 weeks. There are no right or wrong answers to the questions and most can be answered with a simple check (✓). Please answer every question.

<table>
<thead>
<tr>
<th>DURING THE PAST 4 WEEKS . . .</th>
<th>All days</th>
<th>Most days</th>
<th>Some days</th>
<th>Few days</th>
<th>No days</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How often were you physically able to drive a car or use public transportation?</td>
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<td>☐</td>
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<tr>
<td>2. How often were you in a bed or chair for most or all of the day?</td>
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<tr>
<td>3. Did you have trouble doing vigorous activities such as running, lifting heavy objects or participating in strenuous sports?</td>
<td>☐</td>
<td>☛</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>4. Did you have trouble either walking several blocks or climbing a few flights of stairs?</td>
<td>☐</td>
<td>☛</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>5. Were you unable to walk unless assisted by another person or by a cane, crutches or walker?</td>
<td>☐</td>
<td>☛</td>
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<tr>
<td>6. Could you easily write with a pen or pencil?</td>
<td>☐</td>
<td>☛</td>
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<tr>
<td>7. Could you easily button a shirt or blouse?</td>
<td>☐</td>
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<tr>
<td>8. Could you easily turn a key in a lock?</td>
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<td>☛</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>9. Could you easily comb or brush your hair?</td>
<td>☐</td>
<td>☛</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>10. Could you easily reach shelves that were above your head?</td>
<td>☐</td>
<td>☛</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>11. Did you need help to get dressed?</td>
<td>☐</td>
<td>☛</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>12. Did you need help to get in or out of bed?</td>
<td>☐</td>
<td>☛</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>13. How often did you have severe pain from your arthritis?</td>
<td>☐</td>
<td>☛</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>14. How often did your morning stiffness last more than one hour from the time you woke up?</td>
<td>☐</td>
<td>☛</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>15. How often did your pain make it difficult for you to sleep?</td>
<td>☐</td>
<td>☛</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>16. How often have you felt tense or high-strung?</td>
<td>☐</td>
<td>☛</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>17. How often have you been bothered by nervousness or your nerves?</td>
<td>☐</td>
<td>☛</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>18. How often have you been in low or very low spirits?</td>
<td>☐</td>
<td>☛</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>19. How often have you enjoyed the things you do?</td>
<td>☐</td>
<td>☛</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>20. How often did you feel a burden to others?</td>
<td>☐</td>
<td>☛</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>21. How often did you get together with friends or relatives?</td>
<td>☐</td>
<td>☛</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>22. How often were you on the telephone with close friends or relatives?</td>
<td>☐</td>
<td>☛</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>23. How often did you go to a meeting of a church, club, team or other group?</td>
<td>☐</td>
<td>☛</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>24. Did you feel that your family or friends were sensitive to your personal needs?</td>
<td>☐</td>
<td>☛</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

If you are unemployed, disabled or retired, END of questionnaire.

<table>
<thead>
<tr>
<th>All days</th>
<th>Most days</th>
<th>Some days</th>
<th>Few days</th>
<th>No days</th>
</tr>
</thead>
<tbody>
<tr>
<td>25. How often were you unable to do any paid work, housework or schoolwork?</td>
<td>☐</td>
<td>☛</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>26. On the days that you did work, how often did you have to work a shorter day?</td>
<td>☐</td>
<td>☛</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>