The Irritability Questionnaire: A new scale for the measurement of irritability

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Abstract

Irritability is an important symptom in patients with neuropsychiatric disorders. It is a major source of distress to patients and their carers and can lead to social and family dysfunction. Despite this, there has been little systematic research on irritability in psychiatry. The development of an instrument that captures the various components of irritability is a prerequisite to more detailed research in this area. The aim of this study was to design a scale to measure irritable mood and to explore its nature and subtypes. Following a review of the literature and examination of current theories in affective neuroscience, a new self-rating questionnaire was developed covering a range of subjective experiences, judgements and behaviours deemed to encompass the components of irritability. The items were rated along intensity and frequency dimensions. The questionnaire was administered to patients with affective disorders (n = 22), Huntington’s disease (n = 23), Alzheimer’s disease (n = 19) and a control group (n = 46). The new questionnaire shows good reliability and validity. Preliminary differences in irritability were identified between the diagnostic groups.

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1. Introduction

Irritability is a common clinical problem in patients with neuropsychiatric disorders. It has been described in Huntington’s disease (Wagle et al., 2000), traumatic brain injury (Kim et al., 1999; Demark and Gemeinhardt, 2002), dementias (Burns et al., 1990) and Parkinson’s disease (Aarsland et al., 1999). It is a major source of distress to patients and their carers, can lead to social and family dysfunction, and remains one of the main factors responsible for patient hospitalisation and institutionalisation. Studies have linked irritability and hostility to other aspects of morbidity including treatment non-adherence (Pugh, 1983), suicide attempts (Horesh et al., 1997; Akiskal et al., 2005) and violence (Asnis et al., 1994).

While the term ‘irritability’ is widely used in descriptions of patient behaviour, it remains poorly defined and is often used interchangeably with aggression, violent outbursts, hostility, bad temper, anger, intolerance and so on. This lack of consensus prompted Snaith and Taylor (1985) to define irritability as ‘a feeling state characterised by reduced control over temper which usually results in... verbal or behavioural outbursts although the mood may be present without observed manifestations’. They went on to point out that irritable
mood is subjectively unpleasant and can be brief or prolonged. This has been a useful definition and has been operationalized in the Diagnostic Criteria for Psychosomatic Research (DCPR) (Fava et al., 1995). While the definition recognizes the emotional and behavioural aspects of this mood, it does not consider the cognitive components of irritability. Snait and Taylor also argued that irritable mood is separate from other mood disorders such as depression. While there is some support for this (Mangelli et al., 2006), psychiatry in general has not recognized irritable mood disorder as such and tends to see irritability as a ‘minor’ symptom of other diagnoses (e.g. depression or anxiety). Thus far the evidence for either stance is limited.

For the purpose of this study, irritability was conceptualized as a mood state. Irritable mood should be differentiated from emotions such as anger, which have recognizable antecedents. Emotions tend to occur in relation to some external object whereas this is not necessarily the case with moods. Thus one is angry with someone, afraid of something, disgusted with something but non-specifically irritable. Emotions also last for seconds or minutes, have unique facial expressions and tend to lead to adaptive behaviour. In contrast, moods last for days or weeks, tend to bias cognitions and may not have specific facial expressions (Davidson, 1994). At the other end of the spectrum, irritable mood should be distinguished from long-term traits, which include stable styles of personality such as construing the actions of others as hostile or having difficulty regulating emotion (reactive aggression) (Eckhardt et al., 2004). Our aim was to capture pathological irritable mood that lasted more than a few days but was, nonetheless, out of character for the person concerned, as is often described in neuropsychiatric disorders and irritable depression.

We therefore defined irritability as a mood that predisposes towards certain emotions (e.g. anger), certain cognitions (e.g. hostile appraisals) and certain actions (e.g. aggression). It is subjectively unpleasant and objectively characterised by expressions of negative emotion in interpersonal relationships.

Many psychiatric rating scales have a single variable relating to irritability, if they mention the symptom at all. It does not seem likely that a single item can capture all of the clinically important dimensions of the phenomenon with the precision needed for either further exploratory studies or treatment trials in which irritability is the primary outcome variable (Leibenluft et al., 2003). Important variables include duration of irritable states, the frequency of outbursts, and severity of irritable episodes as well as any subtypes that might emerge. In the context of neuropsychiatric patients, it is suggested that irritability may develop as a result of specific deterioration of neural substrates (e.g. in relation to impaired attention, agitation, judgement or other cognitive problems) or indicate a response to increasing awareness of deteriorating function, anxiety, and frustration.

A number of specialized instruments have been developed that have addressed irritable mood more specifically. The Irritability, Depression and Anxiety Scale (IDA) (Snaith et al., 1978) remains an important and validated self-report tool, which rates irritability and differentiates between feelings of outward irritability (irritability directed at the outside world) and feelings of inward irritability (irritability directed at oneself). The Burns Irritability Apathy Scale (Burns et al., 1990) is an instrument measuring irritability in patients according to the judgements made by their carers. This scale is thus a good scale for validating irritable mood via an informant’s account but does not include more subtle dimensions such as subjective experience and consequences. The State-Trait Anger Scale (STAS) (Spielberger et al., 1983) assesses anger, both as an emotional state that varies in intensity, and as a relatively stable personality trait. It differs from our construct by ignoring aggressive behaviours and consequences of irritability. The STAS has very good reliability. Extensive normative data are available for the general population, but the STAS was not designed for clinical or psychiatric populations, and normative data for these groups are therefore limited.

Other scales include the Novaco anger scale and Provocation inventory (NAS-PI) (Novaco, 1994) and the Symptom Checklist — Revised (SCL-90-R) (Derogatis, 1977), which has a hostility subscale, focused primarily on the behavioral aspects of anger.

In order to thoroughly assess a multidimensional construct like irritability, it seems necessary to capture subjective feeling states, cognitive processes and expressive behaviours (Eckhardt et al., 2004). To date there have been few clinical scales designed with this in mind.

2. Methods

2.1. Theoretical framework for the scale construction

Two scales were constructed as part of this study. The main aim of the study was to construct and validate the Irritability Questionnaire (IRQ), a self-rated, Likert-scaled questionnaire for completion by patients. Given that concerns had been raised in the literature regarding the ability of patients with cognitive impairment to endorse self-report measures of mood states (Burns et al., 1990), a second, shorter scale was designed and administered to carers.
2.1.1. Construction of the Irritability Questionnaire (IRQ)

A self-rating format was chosen for the scale to facilitate ease of administration and to reduce interviewer bias. Following a review of the literature, it was suggested that irritable mood might involve subjectively unpleasant feelings, have a specific cognitive signature, and be associated with certain behaviours and consequences.

Fridja (1994) argued that differences in mood states could be categorized under a number of functional headings including Affect, Appraisal and Action readiness. These headings were adapted and added to, to form the basis of a functional analysis of irritable mood, which was then used to formulate questions for the new Irritability Questionnaire.

The first draft of the questionnaire included items new and borrowed. The former has been generated from the definition of irritable mood discussed here. The latter was selected from available irritability scales.

Statements were designed to cover each aspect of mood, including subjective experience, attention, memory, appraisal, behaviour and consequences. An attempt was made to ensure that each aspect of mood was represented in terms of the number of questions allocated. Antonym statements were also added to reduce social undesirability. The meaning of most statements changed significantly when transposed into antonym form, however. For this reason, there were only seven (13%) antonym statements included in the original questionnaire. Given that the frequency and intensity of the irritability may be variable, the instrument was dimensioned to capture both features.

The initial scale had 52 statements. Each statement had two 4-point Likert scales, one for frequency and another for intensity of symptoms. To further diminish social undesirability, the scale instructions reminded respondents that irritability occurs in normal individuals.

The instrument was first piloted in 10 healthy subjects so that its basic psychometric features could be calibrated (phrasing and redundancy of items, etc.). Comments were also solicited from colleagues with experience in scale construction. The information obtained guided initial rephrasing of some of the questions. The scale was then standardized in three clinical groups, Huntington’s disease, Alzheimer’s disease and affective disorder, and a control sample of healthy volunteers.

2.1.2. Carer’s Irritability Questionnaire (CIRQ)

In many cases irritability may express itself as a behavioural rather than a subjective change. Previous studies in patients with dementia have called into question whether or not patients are able to reliably self-report irritability. A short questionnaire for relatives was therefore also designed (see Appendix B). This questionnaire asks for the appearance of new behaviours and mood changes such as sulkiness, surliness, and short-temperedness. It was designed to cover the entire range of possible behaviours, from mild irritability to overt acts of aggression. Once again, each statement had subscales for both frequency and severity.

2.2. Subjects

Patients were consecutive attendees at specialist outpatient clinics in Cambridge and Hull. Ethics approval was sought and gained from the Local Ethics Committee and NHS Trusts concerned. Nineteen patients with AD satisfied ICD-10 criteria for dementia of the Alzheimer type. Twenty-three patients with HD were entered into the study. Diagnosis of HD was confirmed by genetic testing prior to recruitment into the study. Twenty-two patients with affective disorders met ICD-10 criteria for mood disorder. All had major depression. Carers were seen at the same time as patients.

Forty-six volunteers were recruited through poster advertisements placed on local notice boards, public libraries and throughout the universities.

2.2.1. Exclusion criteria

Patients were excluded from the study for the following reasons:

- Their first language was not English.
- The presence of physical disabilities that would preclude answering self-report questionnaires.
- Cognitive impairment to a level that would preclude answering a self-report questionnaire, i.e. Mini Mental Status Examination score <20.

2.3. Data collection

2.3.1. Patients

All subjects were informed and consented, and completed the following:

- Irritability Questionnaire to be standardized
- Scale for Self-assessment of Irritability, Anxiety and Depression (Snith et al., 1978)
- Anger Attacks Questionnaire (Fava et al., 1991)
- State-Trait Anger Scale (STAS) (Spielberger et al., 1983)
- Mini Mental State Examination (MMSE) (Folstein et al., 1975) (only HD and AD subjects)
• The Hospital Anxiety–Depression Scale (HADS) (Zigmond and Snaith, 1983)

2.3.2. Carers

Carers of patients with Huntington’s and Alzheimer’s disease were also asked to complete:

• Irritability–Apathy Scale (IAS) (Burns et al., 1990)
• 10-item version of the new Carer’s Irritability Scale for carers (CIRQ).

2.4. Data analysis

All data were analysed using SPSS version 12.0.01. The distribution of irritability in the population is unknown, and therefore non-parametric statistical methods were used.

2.4.1. Item analysis

The difficulty index (the variance of each item) was calculated for each item to assess its suitability for inclusion.

The discrimination index (the item-total correlation) was also calculated. Items with a correlation over 0.3 were included in the final questionnaire. Items removed at this stage of the analysis were not included in the subsequent validity and reliability evaluations.

2.4.2. Reliability

Cronbach’s alpha coefficient was computed to assess internal consistency. Split-half reliability was also calculated for both the new scale and the carer’s scale. A sample of the study population completed the IRQ again within 2 weeks, returning the scale by post. Retest reliability was calculated using Pearson’s correlation coefficient.

2.4.3. Validity

Construct validity was assessed by correlating IRQ scores with other self-report measures (Irritability, Depression and Anxiety Scale and STAS) as well as carer-rated scales (Burns Irritability scale and the new Carer’s Irritability scale).

3. Results

The sub-samples did not differ significantly in terms of gender (M/F ratio: HD=1.9, AD=0.73, Affective Dis.=0.69, Control=0.77) or years of education (chi-square). There were significant differences in age between the groups (Kruskal–Wallis) (HD=51 S.D.=9, AD=70, S.D.=8; Affective Dis.=62, S.D.=11; Controls=42, S.D.=12), reflecting the differing ages of onset for different diagnoses. There were no correlations between age and measures of irritability or anger on the scales used. The mean duration of illness (months) by group was as follows: HD=50 (S.D.=42), AD=13 (S.D.=15), Affective Dis.=43 (S.D.=113). There were also no significant differences in MMSE scores between HD (26.2, S.D.=4) and AD (24.3, S.D.=3.8) groups (Mann–Whitney U-test).

3.1. Carer’s Irritability Questionnaire

3.1.1. Reliability

Cronbach’s alpha and split-half reliability were 0.86 and 0.77, respectively, for the global scores. Correlations between item scores and corrected global scores ranged between 0.45 and 0.8. Lower correlations were obtained for items relating to physical violence (he/she has become so enraged that he/she has hit someone). These events seemed to occur less frequently than other measures, such as frustration (he/she gets easily frustrated).

3.1.2. Validity

The CIRQ correlated highly with the Burns Irritability Scale (0.85, \(P=0.001\)). There was no significant correlation with the Burns Apathy Scale (0.29, \(P=0.06\)) or the MMSE. The CIRQ was only given to carers of patients with HD and AD, and it did not significantly differentiate between these clinical groups in terms of total scores.

3.2. The Irritability Questionnaire

3.2.1. Item analysis

There was a large difference in the variance of the items in the questionnaire (0.44–4.3). Inter-item correlations were calculated for the global score and for the frequency and severity subscales for all the patients enrolled in the study. Items were chosen on the basis of a high variance (\(\geq 2.5\)) and an inter-item correlation more than 0.3. On the basis of these criteria 21 items were selected for the final version of the questionnaire (see Appendix A).

3.2.2. Reliability

Internal consistency was evaluated for the global score (Cronbach alpha=0.90 and split-half=0.78) as well as the frequency (Cronbach alpha=0.90 and split-half=0.77) and severity (Cronbach alpha=0.89 and split-half=0.58) subscales. Retest reliability was 0.82 in those patients retested at 2 weeks (\(n=10\)).
3.2.3. Construct validity

Two measures were used to assess convergent validity. Firstly, Spearman’s Rho correlation coefficients between the IRQ and established measures of irritability were analysed. Secondly, correlations between the IRQ and carer-rated scales were calculated.

The IRQ correlated with other measures of irritability, both self-report (Trait anger scale 0.72, $P<0.001$, State anger scale 0.58, $P<0.001$, Outward Irritability 0.58, $P<0.001$, Inward Irritability 0.49, $P<0.001$) and carer-rated (CIRQ 0.34, $P=0.03$, Burns Irritability Scale 0.37, $P=0.02$). We examined divergent validity by assessing correlations with measures unrelated to the irritability construct. The new scale did not correlate with the Apathy scale — 0.22 (NS) or the MMSE — 0.08 (NS).

4. Discussion

Both the CIRQ and the IRQ have demonstrated good reliability in measuring irritability in clinical populations. The content validity of the scale was assured by a detailed explication of the domains involved in irritability, ensuring that all relevant domains were represented as items in the questionnaire.

The Irritability, Depression and Anxiety Scale (Snaith et al., 1978) divided irritability into ‘outward’ and ‘inward’ types. There are some similarities between this model and the IRQ. Outward irritability is similar to our concept of ‘Changes in action threshold’ (or the behavioural expression of irritability). Snaith et al.’s concept of ‘Inward Irritability’ differs significantly however. Two of the four statements pertaining to inward irritability relate to thoughts of self-harm, a concept considered separate from irritability in the construction of the IRQ. This may be one of the reasons for the moderate correlation between inward irritability and the IRQ. Similarly, the moderate correlation between outward irritability and the IRQ might be due to the focus on irritable actions directed at others in the case of the ‘outward irritability’ statements. The more global explication of the irritability construct and the number of questions (21 for the IRQ as opposed to 4 statements each for inward and outward irritability) may be other reasons for only moderate correlations between the two constructs and thus the two tests.

The IRQ was designed to comprehensively assess irritability as a multidimensional phenomenon. This clinical scale includes items relating to irritability based on cognition and appraisal theory (e.g. I feel as if people make my life difficult on purpose), subjective awareness and labelling of irritable feelings (e.g. I have been feeling like a bomb, ready to explode) and the behavioural expression of irritable mood (e.g. I lose my temper and shout or snap at others). It is possible that these factors may be differentially affected in different disorders; for example, patients with pseudo-bulbar palsy may have an increase in the expression of irritability disproportionate to their subjective experience (Lieberman and Benson, 1977). Whether different disorders have recognisable subtypes of irritability is a question for future research.

It does seem clear from the item analysis of both IRQ and CIRQ that questions about the more subtle forms of irritability such as frustration are endorsed more often than those asking about overt acts of aggression. The exact relationship between irritability and aggression remains unclear, but this study, like others (Berkowitz and Harmon-Jones, 2004), indicates that the two are at least correlated.

The IRQ was designed to capture cognitive and emotional aspects of irritability that are unpleasant. Subjects experiencing these negative mood states are likely to be aware of this distressing state, thus making a self-report measure useful. On the other hand, the disease process may render make the subject more prone to reactive aggression through increased arousal or decreased behavioural inhibition. In this situation, subjects may be less self-aware. Self-report measures may therefore be less sensitive for these subjects as well as those with poor insight or memory disturbance. It was felt that irritability would be recognised by carers in the actions of patients, and the CIRQ therefore focussed on irritable behaviour.

The CIRQ correlated well with the Burns Irritability Scale, but neither of these carers’ scales correlated particularly well with the IRQ. There are three possible reasons for this finding. Firstly, the carers’ scales were only given out to the carers of patients with Alzheimer’s and Huntington’s Disease. The total number of subjects was therefore significantly lower ($N=42$) when compared with the IRQ vs. other self-report measures ($N=110$). The lower numbers may have decreased the strength of any correlation found. Secondly, self-report measures rely on insight and memory, processes that may be affected earlier in the course of dementias leading to a disparity between the carer’s and patient’s scores. Finally, carers may not want to endorse socially undesirable statements pertaining to those they care for. There were no antonym questions in the carer’s scale and the CIRQ had more focus on aggressive and irritable behaviour compared with the IRQ’s focus on the subjective aspects of irritability. As with the IDA
(Snaith et al., 1978), the relative emphasis on cognitive and emotional aspects in the IRQ may have lessened the correlation between carer’s tests and the IRQ.

A subscale of the IRQ that correlates well with the CIRQ, both cross-sectionally and longitudinally, would allow CIRQ scores to be substituted for IRQ scores in patients who are no longer cognitively able to complete self-report scales. The development of this aspect of the scale is an area of ongoing research. Longitudinal studies will also be able to disentangle hostile or disagreeable traits from changes in irritability attributable to mood disorder.

The purpose of the IRQ was not primarily to make diagnostic decisions about these disorders but rather to explore the dimensions of irritability. It is in these dimensions that useful differences are likely to manifest. Although there was a trend towards differing patterns of irritability in various diagnoses, this research is more appropriately done on a new sample of patients once the scale has been standardised. The main focus of this study was to validate the scale and discover whether subtypes would emerge.

The study confirmed the findings of previous studies (Perlis et al., 2005) regarding the significant correlation between irritability and depression (r=0.62) and anxiety (r=0.51) as measured by the HADS (Zigmond and Snaith, 1983). This raises questions about what role irritability should play in the diagnosis of affective disorders. Some authors have suggested that the presence of irritability, along with dysphoria and agitation, should be considered an irritable subtype of depression (Akiskal et al., 2005). Another possibility is that major depression is characterised by negatively valenced moods per se, rather than just sadness. The idea that moods can be classified along two general but independent dimensions – Positive Affect and Negative Affect – is not a new one (Watson and Clark, 1994). Although anger and irritability are described in affective disorders, they are generally considered secondary features of depression or anxiety. Alternatively, irritable mood disorder may present in the absence of anxiety or major depression, as suggested in a recent study by Mangelli et al. (2006). If this is the case, it would imply a significant hiatus in current psychiatric diagnostic systems. For example, in DSM-IV (American Psychiatric Association, 2000) there are nine Axis I disorders for mood disorders and 11 for anxiety-related disorders but none that directly address irritable mood. Irritability has not yet received enough empirical examination to know whether it should be considered a symptom of another psychiatric disorder or a mood disorder in its own right (Eckhardt et al., 2004).

The scales’ reliability and validity have been established. Future research using the IRQ with larger numbers of patients will be needed to establish norms for the scale. These can then be used to determine whether different causes for irritability (e.g. degeneration of eloquent neural substrates, depression, and anxiety) display different patterns of irritability. An important aim for this stage of the study would be to show whether or not the IRQ is able to discriminate between irritability syndromes and how these subtypes map onto neural substrates.

Appendix A. Irritability Questionnaire

Doctors are aware that emotions play an important role in most illnesses. The following statements are about feelings that everyone experiences from time to time. Please circle the number that best shows how you have been feeling over the last 2 weeks. Don’t take too long with your answers. Your immediate response is probably the most accurate.

1. I find myself bothered by past insults or injuries.
   How often? How much?
   0 — Never 0 — Not at all
   1 — Occasionally 1 — A little
   2 — Quite often 2 — Moderately
   3 — Most of the time 3 — Very much so
2. I become impatient easily when I feel under pressure.
   How often? How much?
   0 — Never 0 — Not at all
   1 — Occasionally 1 — A little
   2 — Quite often 2 — Moderately
   3 — Most of the time 3 — Very much so
3. Things are going according to plan at the moment.
   How often? How much?
   0 — Never 0 — Not at all
   1 — Occasionally 1 — A little
   2 — Quite often 2 — Moderately
   3 — Most of the time 3 — Very much so
4. I lose my temper and shout or snap at others.
   How often? How much?
   0 — Never 0 — Not at all
   1 — Occasionally 1 — A little
   2 — Quite often 2 — Moderately
   3 — Most of the time 3 — Very much so
5. At times I find everyday noises irksome.
   How often? How much?
   0 — Never 0 — Not at all
   1 — Occasionally 1 — A little
   2 — Quite often 2 — Moderately
   3 — Most of the time 3 — Very much so
6. When I flare up, I get over it quickly.
   How often? How much?
   0 — Never 0 — Not at all
   1 — Occasionally 1 — A little
   2 — Quite often 2 — Moderately
   3 — Most of the time 3 — Very much so
Appendix A (continued)

7. Arguments are a major cause of stress in my relationships.
   How often?           How much?
   0 — Never            0 — Not at all
   1 — Occasionally     1 — A little
   2 — Quite often      2 — Moderately
   3 — Most of the time 3 — Very much so

8. I have been fairly even tempered.
   How often?           How much?
   0 — Never            0 — Not at all
   1 — Occasionally     1 — A little
   2 — Quite often      2 — Moderately
   3 — Most of the time 3 — Very much so

9. Lately I have felt frustrated.
   How often?           How much?
   0 — Never            0 — Not at all
   1 — Occasionally     1 — A little
   2 — Quite often      2 — Moderately
   3 — Most of the time 3 — Intensely

10. I am quite sensitive to others’ remarks.
    How often?           How much?
    0 — Never            0 — Not at all
    1 — Occasionally     1 — A little
    2 — Quite often      2 — Moderately
    3 — Most of the time 3 — Very much so

11. When I am irritated, I need to vent my feelings immediately.
    How often?           How much?
    0 — Never            0 — Not at all
    1 — Occasionally     1 — A little
    2 — Quite often      2 — Moderately
    3 — Most of the time 3 — Very much so

12. I have been feeling relaxed.
    How often?           How much?
    0 — Never            0 — Not at all
    1 — Occasionally     1 — A little
    2 — Quite often      2 — Moderately
    3 — Most of the time 3 — Very much so

13. I feel as if people make my life difficult on purpose.
    How often?           How much?
    0 — Never            0 — Not at all
    1 — Occasionally     1 — A little
    2 — Quite often      2 — Moderately
    3 — Most of the time 3 — Very much so

14. Lately I have felt bitter about things.
    How often?           How much?
    0 — Never            0 — Not at all
    1 — Occasionally     1 — A little
    2 — Quite often      2 — Moderately
    3 — Most of the time 3 — Very much so

15. At times I can’t bear to be around people.
    How often?           How much?
    0 — Never            0 — Not at all
    1 — Occasionally     1 — A little
    2 — Quite often      2 — Moderately
    3 — Most of the time 3 — Very much so

16. When I look back on how life treated me, I feel a bit disappointed and angry.
    How often?           How much?
    0 — Never            0 — Not at all
    1 — Occasionally     1 — A little
    2 — Quite often      2 — Moderately
    3 — Most of the time 3 — Very much so

17. Somehow I don’t seem to be getting the things I actually deserve.
    How often?           How much?
    0 — Never            0 — Not at all
    1 — Occasionally     1 — A little
    2 — Quite often      2 — Moderately
    3 — Most of the time 3 — Very much so

18. I’ve been feeling like a bomb, ready to explode.
    How often?           How much?
    0 — Never            0 — Not at all
    1 — Occasionally     1 — A little
    2 — Quite often      2 — Moderately
    3 — Most of the time 3 — Very much so

19. Other people always seem to get the breaks.
    How often?           How much?
    0 — Never            0 — Not at all
    1 — Occasionally     0 — Not at all
    2 — Quite often      2 — Agree
    3 — Most of the time 3 — Strongly agree

20. Lately I have been getting annoyed with myself.
    How often?           How much?
    0 — Never            0 — Not at all
    1 — Occasionally     1 — A little
    2 — Quite often      2 — Moderately
    3 — Most of the time 3 — Intensely

21. When I get angry, I use bad language or swear.
    How often?           How much?
    0 — Never            0 — Not at all
    1 — Occasionally     1 — A little
    2 — Quite often      2 — Moderately
    3 — Most of the time 3 — Very much so

Appendix B. Carer’s Irritability Questionnaire

This questionnaire should be completed by someone who knows the patient well.

Illness can affect people’s behaviour in many ways. We would like to ask you a few questions about some changes in behaviour you may have noticed.

Please answer the following questions about the patient according to how he/she is now compared with how he/she was before his/her health problems began.

1. He/she tends to sulk or ‘pout’.
   How often?           How much?
   0 — Never            0 — Not at all
   1 — Occasionally     1 — A little
   2 — Quite often      2 — Moderately
   3 — Most of the time 3 — Very much so

2. Sometimes the smallest thing can put him/her in a bad mood.
   How often?           How much?
   0 — Never            0 — Not at all
   1 — Occasionally     1 — A little
   2 — Quite often      2 — Moderately
   3 — Most of the time 3 — Very much so

(continued on next page)
Appendix B (continued)

3. He/she has gotten so angry that he/she has broken things.
   How often? How much?
   0 — Never 
   1 — Occasionally 
   2 — Quite often 
   3 — Most of the time 

4. He/she loses his temper and snaps or shouts at others.
   How often? How much?
   0 — Never 
   1 — Occasionally 
   2 — Quite often 
   3 — Most of the time 

5. He/she is quite critical of others.
   How often? How much?
   0 — Never 
   1 — Occasionally 
   2 — Quite often 
   3 — Most of the time 

6. He/she has been so enraged that he/she has hit someone.
   How severe was the attack? How often? How much?
   0 — None 
   1 — A little 
   2 — Moderately 
   3 — Severe 

7. He/she has become surly and withdrawn.
   How often? How much?
   0 — Never 
   1 — Occasionally 
   2 — Quite often 
   3 — Most of the time 

8. He/she is easily frustrated.
   How often? How much?
   0 — Never 
   1 — Occasionally 
   2 — Quite often 
   3 — Most of the time 

9. He/she might lose control and hurt someone.
   How often? How much?
   0 — Never 
   1 — Occasionally 
   2 — Quite often 
   3 — Most of the time 

10. He/she has threatened violence against him/herself or others.
    How often? How much?
    0 — Never 
    1 — Occasionally 
    2 — Quite often 
    3 — Most of the time 


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