FORENSIC MEDICAL REPORT

PARTY

Name:	Mrs. C
Current residence:	
Date of birth:	[date]
Represented by:	
Reference:	

EXPERT WITNESS

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Date of last examination:	[date]
Date of report:	[date]
Report ID:	

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QUALIFICATIONS AND EXPERIENCE

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1. INSTRUCTIONS

1.1. I was instructed to assess Mrs. C's mental status following a road-traffic accident in order to provide an opinion on the following, insofar as they lie within my areas of expertise:

1.1.1. Mrs. C's current medical condition.

1.1.2. In relation to each injury: what treatment has been given, what treatment is presently being given and what treatment will be needed in the future.

1.1.3. A description, insofar as possible, of the pain, suffering and inconvenience Mrs. C has endured, continues to endure and will endure in the future.

1.1.4. Whether there is any relevant pre-accident medical history and, if so, what bearing that may have on the duration and/or extent of her injuries suffered as a result of the accident.

1.1.5. A prognosis, including the extent and duration of any continuing disability and how this may affect her daily living, and employment., including such matters as the need for care/domestic assistance, help with DIY/home maintenance and transport.

1.1.6. An opinion as to whether her injuries have symptoms which require a report from an expert in another field and if so, the specialist field of expert required.

1.1.7. An opinion as to whether Mrs. C requires any further medical investigations and if so, the estimated costs of those investigations.

2. EVIDENTIAL BASES OF THE REPORT

2.1. Documentation and other evidence

2.1.1. Medical records amounting to 949 pages, including some repetitions, from General Practice records, Hospital records, and reports from a number of surgeons. There are some records that seem to be missing, if they exist, specifically those in which a diagnosis of PTSD was reportedly made (recorded on [date]) and any in which psychotherapy was provided, given that it had been recommended a number of times.

2.2. Clinical and psychometric assessment

2.2.1. I emailed links to several psychometric assessments for Mrs. and Mr. C to complete. These psychometrics are explained in the Appendix.

2.2.2. I interviewed Mrs. C clinically over a period of 3 hours on [date] in the presence of her husband, Mr. C, with whom I also spoke on his own.

3. OPINION AND SUMMARY OF FINDINGS

3.1. Mrs. C's symptoms and complex medical history have been very carefully considered in a process of differential diagnosis, using data from clinical interview, objective testing, and medical records.

3.2. In objective testing, there was no evidence of malingering (a conscious fabrication/simulation/exaggeration of illness). However, there is evidence to suggest that Mrs. C under-reported certain of her mental symptoms.

3.3. Her symptoms meet the diagnostic criteria for:

3.3.1. a **Post-Traumatic-Stress Disorder** (ICD-10 code: F43.1; DSM-5 code: 309.81; Cooper, 1994), likely of the 'simple' subtype and of severe intensity; this may be considered a new disorder or a reactivation of a previously resolved disorder, but is distinguishable in its presentation from a previous condition.

3.3.2. a **Dementia or Neurocognitive Disorder due to Traumatic Brain Injury,** with behavioural disturbance, of (mild-to-)moderate severity (ICD-10 codes: S06.2, F02.8; DSM-5 code using ICD-10-CM: S06.2X92, F02.81). This was due to not to injury to specific parts of the brain but to the shearing effects of impact in the accident on the brain-structures underlying cognition, resulting in a broad array of deficits.

3.3.3. an extended episode of a **Recurrent (Major) Depressive Disorder** with somatic syndrome (ICD-10 code: F33.1; DSM-5 code: 296.32) of moderate-severe intensity.

3.4. These mental conditions are injuries suffered as a result of the accident in question and comprise her current medical condition as it pertains to my area of expertise.

3.5. On the basis of the evidence available to me, Mrs. C's stress-disorder has not been treated, albeit that she has been provided with medication aimed at symptomatic relief (e.g., sleeping-pills). Her depression since the accident was treated with medication, but this was discontinued; the reason for the discontinuation was not evident. There has been no treatment for her neurocognitive disorder as far as I can find.

3.6. Relevant pre-accident medical history: Mrs. C has a complex medical history including autoimmune disease that may have had nerve-involvement; however, this does not seem to impinge upon her current mental condition, except possibly her experience of physical pain. She has a history of mental disorders, including one diagnosed incorrectly or inadequately as "agitated depression" by a non-specialist (a Generalist Physician) and as a possible personality-disorder by a trainee psychiatric physician, but which appears strongly to have been a complex traumatic stress-disorder. It should be noted that the understanding of the stress-disorders has advanced significantly over the last two decades and the taxonomies, and clinical practice, are slowly catching up with this.

However, there are notes in the medical records that identify very good gains in, for example, anger-management and impulsiveness, and this disorder seems to have resolved or become clinically insignificant from [date] onwards. She also seems to have had a non-agitated form of depression that should have been independently diagnosed.

3.7. This history of mental disorder means that Mrs. C was vulnerable to a mental injury, much as a person with a musculoskeletal disorder would have been more vulnerable to physical injury. Whether or not people with a history of illness are due equal consideration as those without such a history is a legal question and, in a forensic setting, lies outside my area of expertise practically, if not ethically. The consequence of this history is that Mrs. C has incurred a further episode of a depressive disorder, and its apparent severity is consistent with the estimated severity of the previous episodes of the depressive disorder(s) pre-accident; this is likely due to the fact that the depression is in reaction to concerns around financial viability and supporting her family. However, her PTSD is likely to last longer and be less readily treatable due to her having had a stress-disorder previously, as stress-disorders involve sensitisation related to the fight-or-flight/ survival response of the nervous system; in addition, the nature of the intrusive experiences (in the form of severe and persistent nightmares), is more difficult to treat than other symptoms such as hypervigilance, defensive avoidance, and nervous-system hyper-reactivity, which can be treated, for example, with cognitive and neurofeedback methods. This disorder is also likely to have reactivated and intensified previously resolved issues that were related to the complex stress-disorder Mrs. C suffered from previously, such as hypervigilance and threat-sensitivity. Furthermore, both depression and PTSD typically have cognitive symptoms, and their interaction with brain-injury-related cognitive deficits means that these are also harder to treat; this means that they are also likely to be longer-lasting.

3.8. Mrs. C is currently severely disabled by her physical and mental conditions (Palmer and Brown; 2013; Palmer and Greenough, 2013), which may be highly specified by the taxonomy of the International Classification of Functioning, Disability, and Health (WHO, 2001) in reference to the criteria of the Equality Act 2010.

3.9. The prognosis as a whole for Mrs. C's mental and physical conditions are poor to very poor.

3.9.1. Given that she has highly significant physical disability, she is constantly reminded of the trauma that has led to her mental conditions, particularly in terms of pain and mobility. Thus, the trauma, in a sense, is continuing (consistent with the persistent nightmares) and mental adaptation to a physically disabled condition and the effects of the trauma on her damaged self-image is far harder.

3.9.2. While the impact of her cognitive deficits can be reduced through neuropsychological rehabilitation and the provision of technological work-arounds and domiciliary services, and her depression can likely be reduced by contextual interventions such as financial support that provides for her and her family, it is unlikely that the mental conditions will be fully resolved. As mentioned, the PTSD will be difficult to

resolve fully as the physical disability, particularly the pain and problems with using her body as before the accident, will not resolve sufficiently to return Mrs. C to her condition just prior to the accident. PTSD can also be exacerbated or re-develop in older people who experience further-declining health, including cognitive function, and social isolation, which are expected to occur as Mrs. C ages.

3.9.3. Mrs. C is likely to be disabled and partially dependent for life; while there will likely be some slow remediation in some of her cognitive deficits over time, given adequate neuropsychological rehabilitation, the degree of this is always uncertain and is rarely, if ever, complete. Her cognitive deficits would not rule out a manual job that is sufficiently governed by standardised procedures, but her physical condition will not allow that. The alternative of a sedentary job with primarily mental tasks will be ruled out in effect by her cognitive deficits, irritability, and by the interactions of fatigue, physical pain and disability with sedentary activities. The pervasive nature of Mrs. C's deficits, in that they are both significantly physical and mental, and the effects of fatigue, which are typically long-lasting, means that she is unlikely to ever find, secure, and maintain a job to provide for her family.

3.9.4. Likewise, Mrs. C will not be capable of routine activities such as home-maintenance, self-managed transport (e.g., driving), and fulfilling the role of parent for her children. She will need assistance to carry out these activities.

3.10. It is reasonable to state, on the basis of the evidence available, that Mrs. C has incurred extreme pain, suffering, and inconvenience, and will continue to experience all three, to a lesser degree, for life.

3.11. To the best of my knowledge, given my area of expertise, there are no symptoms that indicate an absolute need for a report from an expert in another field for the purposes of this case. However, it is highly unlikely that Mrs. C's neurocognitive deficits are limited to the fundamental ones that have been assessed; for the purposes of her future rehabilitation, a complete neuropsychological evaluation would be necessary. This would take approximately ten hours to complete; it should be done as part of a comprehensive evaluation for neuropsychological rehabilitation but will be unlikely to change the picture identified here. The costs of such treatment would need to be estimated by a specialist in costing neurorehabilitation for people with Mrs. C's condition, as the stress-disorder would complicate the rehabilitation-process significantly in terms of minimising dependence. Further, given that Mrs. C's condition has pain as a prominent symptom and that she has a history of autoimmune disease that may have had neurological involvement, it may be prudent to consider an evaluation by a physician (including an osteopathic physician) who is expert in pain-assessment to determine if the pain is complicated by a regional or central pain-syndrome. The presence of such a condition would affect the prognosis of her disability as a whole and possibly the degree of dependence estimated.

3.12. In terms of treatment, Mrs. C will need treatment from an experienced/ senior clinical psychologist with significant psychotherapeutic expertise in the treatment of stress-disorders, neuro-disability, and pain. In addition to

cognitive remediation, this clinician should use a later-generation form of cognitive behavioural therapy, such as Mindfulness-based CBT, ACT, DBT, or Schema-Therapy, allied with behavioural coaching, and neurofeedback. It should be noted that a psychiatric physician or nurse, and a counsellor, are not qualified to address these issues unless they have additional training in the appropriate forms of psychotherapy as well as experience in treating with psychotherapy people with co-morbid neuro-disabilities susceptible to rehabilitation; further, re-application of medication alone is not sufficient or ethically adequate.

4. FINDINGS BY INTERVIEW AND OBJECTIVE TESTING

4.1. **Daily function**: Mrs. C completed the **Ruff Neurobehavioral Inventory** (Ruff and Hibbard, 2003; see Appendix), which assesses an individual's experience of the important dimensions of his/her daily life activities following a catastrophic event.

4.1.1. **Validity**: All measures but the Inconsistency score indicated valid responding. The inconsistency score (T=74) indicated some random responding, which was possibly due to problems with reading-comprehension (see NAB-results below) as well as some confusion: Mr. C read out some of the questions due to problems in reading and processing them and it became evident that Mrs. C was answering the wrong number on the sheet for the question; I directed them on a way to go back and check where they had diverged and start again where they saw that they had diverged, but it is possible that they did not go back far enough. It is also useful to note that only those questions in which the scoring was reversed had discrepant scores from the main construct, indicating a possible problem with information-processing and possibly perseveration; this would lead to under-reporting of symptoms. Despite this, the response-picture is adequately clear and can be considered reliable to interpret.

4.1.2. The Negative Impression scale measures a person's effort to make things look worse than they are; Mrs. C's result was in the normal range and there was no significant statistical difference in the style of responding to questions referring to function pre- vs. post-injury; thus, again, there is no evidence of manipulation of the reporting so as to present herself in a worse light than she is.

4.1.3. The physical, cognitive, and emotional domains are assessed in more detail using other methods (psychometric and clinical assessment, including those by the physicians providing reports in their specialist areas) and the findings across methods and assessors are consistent.

4.2. In the **Quality of Life Domain**, Mrs. C reports severe problems requiring assistance in the domain of activities of daily living that involve cooking, toileting, cleaning, grooming, feeding, shopping, and maintaining personal safety. Of all the sub-scales in the psychometric, the activities of daily living sub-scale has the highest reported level of problems (T=113, where T-scores above 73 are certainly clinically significant).

4.3. Mrs. C also reports problems with social integration and recreation, reflecting problems with her social support-system, which is relevant to her ability to recover health to the degree that that is possible. Despite her family's support, she is socially isolated and without adequate support to promote re-integration into broader daily life. Likewise, the Vocational and Financial sub-scales speak to the fact that a person often bases his or her identity and self-esteem on their vocational achievements and/or their ability, for instance, to provide for their family. The loss of ability to live healthily in this way affects both mental and therefore physical function and recovery, in a self-perpetuating loop: Mrs. C reports significant problems in this area (T=89). However, she did not report symptoms of clinical depression at the time of the assessment and had retained a sense of purpose and meaning in life (as measured by a "Spirituality" Scale), which are helpful in recovery from catastrophic injury.

4.4. The **Physical Domain** measures the degree of perceived physical dysfunction related to neurological, general bodily, and specifically pain-related symptoms. Mrs. C reports severe problems with physical functioning focusing on neurological and pain symptoms, but also moderately problematic 'other' bodily symptoms indicating overall very poor physical health, which are not reported as having been present pre-injury, consistent with the medical history. The reports from the relevant specialists in physical health address these issues and should be referred to; they provide corroborative and convergent evidence of these reported concerns.

4.5. The **Emotional Domain** measures emotional dimensions that are most frequently affected by injuries affecting both the mind and the body, including depression and anxiety—which would also indicate whether the presence of such a disorder might magnify Mrs. C's presentation of her symptoms.

4.6. Mrs. C's perception of her situation records little awareness of symptoms indicative of clinical depression or anxiety, or substance-use (specifically, alcohol and drug-use), nor a significant difference pre- vs post-injury.

4.7. The Emotional Domain also measures issues with paranoia and suspicion as well as anger and aggression, as these can be increased by uncertainty, fear, and anger, especially if there is a problem with judgement. These can affect how the person presents herself to clinicians and can affect their perception of both her and her symptoms, which can be problematic if the clinician is poor in empathy and understanding, unskilled in interviewing patients with mental disorders on potentially sensitive topics, or biased against the patient.

4.8. Mrs. C's self-report indicates that there has been an increase in anger, which was statistically significant from pre-injury. This is indicated particularly by irritability, verbal aggression, and a short temper in the face of frustration; this was also evident during my clinical assessment of her. While this may be only somewhat raised compared to pre-injury, it may be that Mrs. C had a significantly short temper prior to the injury: the absolute rather than perceived level of anger may be under-perceived and it is reasonable to question if Mrs. C has full insight into her emotional condition and particularly its effects on other people (supported by the

report of deficits in Executive Function). There is also a clinically relevant problem with some paranoia and suspicion, which is also statistically significant in terms of being higher than her perception of these issues prior the injury. Mrs. C reports that she won't allow other parents to take her children out now, usually will not answer the front door, and minimises her contact with strangers.

4.9. Mrs. C reports severe symptoms that are indicative of a stress-disorder (e.g., PTSD). The PTSD scales measure four sub-domains of the diagnosis: the experience of an extreme event involving a threat of death or serious injury; the experience of intense fear, helplessness, or horror due to that event, often leading to recurrent recollections of the event in images, thoughts, or nightmares; the avoidance of activities, places, or people associated with the trauma (although it can also include avoidance of behaviours, such as going to sleep); and persistent symptoms such as problems with falling or staying asleep, irritability and aggression, poor concentration, and hypervigilance (or paranoia), and exaggerated physiological responses to surprise (e.g., startle, stress-incontinence, or shaking). Mrs. C reports credibly all of these symptoms. The symptoms reported in the Emotional Domain are significantly different from those reported in reference to her condition pre-injury.

4.10. In the RNBI, no objective evidence is available to indicate specific weaknesses in Mrs. C's emotional functioning pre-injury. Post-injury, the results suggest that her mood as a whole is preserved but her ability to manage her emotional life is seriously injured. This is relevant to her ability to recover from the injury long-term. It also indicates a problem with awareness and insight of her full mental condition. In this regard, it is useful to note that Mrs. C reported that she no longer trusts her own judgement, needs constant reassurance from Mr. C that things are OK, and needs him to tell her when she's being "stupid".

4.11. The **Cognitive Domain** measures Mrs. C's self-perceived cognitive functioning across attention and concentration, executive functioning, learning and memory, and speech and language skills, including items that assess verbal and visuospatial functioning.

4.11.1. Mrs. C's reporting of **Attention and Concentration** reflect moderate problems (T=69) with one or more of divided attention, sustained concentration, multi-tasking, and distractibility.

4.11.2. The results of the **Executive Functioning** scale reported severe problems (T=79) with developing and carrying out plans, particularly those that require the comprehension of social and interpersonal rules, the identification of problems, the generation of solutions, the ability to adapt to unexpected circumstances, and to place episodes and tasks in their correct timeline and order.

4.11.3. The **Learning and Memory Scales** measure problems with encoding, storage, and retrieval of information, and reflect a highly problematic experience for Mrs. C (T=81); as the results estimated pre-injury were within the normal range (T=46), there is no evidence available to indicate any cognitive disorder prior to the accident in question and

thus any such problems currently may be reasonably attributed to the injury itself.

4.11.4. The **Speech and Language** scales measures problems with verbal expression and comprehension, including naming, fluency of speech, and word-finding difficulties, which was also high (T=87). In Mrs. C's case, this would be affected by her emotional condition, problems with memory, as well as the problems arising from the facial injury that required significant orofacial and dental surgery.

4.11.5. Overall, Mrs. C's scores indicated severe problems with her experience of cognitive function. These were the most problematic for her in comparison to emotional, physical, and quality of life domains.

4.12. **Cognitive function**: I used the Screening module of the Neuropsychological Assessment Battery (NAB; see Appendix) to assess objectively and specifically areas of possible cognitive deficits. For reference here, the gradations of standardised impairment used in the NAB are: Average < Below Average < Mildly Impaired < Moderately Impaired < Severely Impaired. It should be noted that the scores are reversed for this test, where the lower scores indicate deficits: T-scores below 50 and standard scores below 100 are indicative of deficits.

4.12.1. In summary, Mrs. C showed mild-to-moderate impairment in attention (standard score = 72), mild impairment in language function (standard score = 79), below average function in memory (standard score = 87), average ability in Executive Functions (standard score = 100), and superior ability in Spatial Functions (standard score = 124), focusing on visual discrimination and design-construction. These summary scores are comprised of sub-tests that are clarified as follows, using T-scores:

4.12.1.1. **Attention**: the most notable deficits were with orientation (specifically to time), which was severely impaired, and with her efficiency (T=30) and speed (T=30) of processing in simultaneous task-processing (numbers and letters); there were also problems with the task of attention combined with information-processing for Digits Backward (T=37). Her error-rate was average (T=57), which supports my clinical perception of adequate effort.

4.12.1.2. **Language:** there was mild-to-moderate impairment in auditory comprehension (T=30).

4.12.1.3. **Memory:** Mrs. C was below average in story-learning with both immediate and delayed recall (T=41), and had mild impairment in shape-learning immediate recognition (T=39), but visual memory retention was above average (T=57), indicating that what she could learn visually was retained well and that most of her problems with memory are associated with verbal learning.

4.12.2. While it would have been ideal to use further tests to assess memory in order to quantify the specific deficits, there was insufficient time in the appointment to do this. Again, her overall memory-related function

would be expected statistically to be the same as in the Screening Module, but there are likely to be specific deficits that are not identified.

4.12.3. Other: I note the records of [date] in which Mrs. C is reported as having reduced peripheral vision in the right upper quadrant (which is consistent with brain-damage to the left occipital lobe of the brain) and evidence of perceptual neglect in the right visual field (a deficit in attention of the non-dominant hemisphere, which is consistent with brain-damage to the neighbouring left parietal lobe of the brain, which may also explain the occurrence of synaethesia noted in Mrs. C's neurological records); both are consistent with diffuse traumatic brain-injury to the left hemisphere of the brain, at least. Mrs. C is also reported to have symptoms that are very typical following brain-injury, such as a reduced threshold for sensory and information-processing overload. Further, Mrs. C was reported ([date]) as having severe problems in verbal and non-verbal abstract reasoning, among related functions. Due to time-limitations, these functions were not evaluated in my assessment reported here, but they are unlikely to have resolved.

4.13. I also used the **BRIEF-A** (Gioia et al., 2000) to gain information into specific problems with executive functions, given the limited scope of the NAB. I asked Mrs. and Mr. C to complete separate forms, partly to determine if Mrs. C might have a degree of lack of insight or awareness as to her executive functions as they impinge upon social and practical functions.

4.13.1. The **validity-indices** of the BRIEF-A showed that Mrs. C does not view herself in an overly negative way; there was also no evidence of atypical responding, and her responses were sufficiently consistent to allow the results to be taken at face-value with adequate analysis. Mrs. C's responses also lacked any indication of invalid reporting.

4.14. Overall, Mrs. C reports significant difficulties in several areas of executive functioning; this is at variance with the findings of the NAB and may be attributed to their different emphasis of the two tests: for example, the NAB Screening module does not include any assessment of emotional self-control.

4.15. Mrs. C considers her behavioural self-regulation, notably emotional regulation (T=56), to be normal; however, this is contradicted specifically by the report of Mr. C, who identifies poor emotional control (T=73), including emotional lability, sudden outbursts, and/or emotional explosiveness. This was supported by my observations in the clinical assessment and indicates that Mrs. C is either defensive about these problems, or lacks insight into their occurrence or significance, including their effects on others, despite Mr. and Mrs. C reporting that Mrs. C has adequate self-monitoring in social situations. The cause of such a lack of awareness is uncertain as there was no time available to do objective testing on insight.

4.16. Both Mrs. and Mr. C identify Mrs. C as having problems with starting tasks, activities, and problem-solving. Both identify problems with working memory (T=79, 73: Mr. and Mrs. C's estimations, respectively), indicating substantial difficulty holding an appropriate amount of information in mind

or in "active memory" for further processing, encoding, or mental manipulation, affecting sustained attention; this is supported by the finding of the Digits Backward score (above). Individuals with fragile or limited working memory may have trouble remembering things (e.g., phone numbers, instructions) even for a few seconds, keeping track of what they are doing as they work, or may forget what they are supposed to retrieve when sent on an errand. Such individuals miss information that exceeds their working memory capacity.

4.17. Mrs. C also experiences difficulties with initiating tasks (T=73, 76) and the planning and organisation of information (T=82,74), which affects her ability to solve problems. Mrs. C perceives that she has an adequate ability to monitor tasks in the sense of keeping track of projects and avoid making careless mistakes (T=57) but Mr. C perceives this to be somewhat problematic (T=65). Both also identify problems with keeping materials and belongings reasonably well organised and finding them when needed (T=65, 69).

4.18. Thus, other from the differences in perception of her emotional self-control and the ability to monitor tasks, both Mrs. and Mr. C agree on the types of her specific deficits related to Executive Function, which are significant.

4.19. **Emotional function**: I used the **Personality Assessment Inventory** (PAI; Morey, 1991) to evaluate a wide range of psychiatric symptoms directly related to diagnostic categories (see Appendix). This psychometric relies on both T-scores and a clinical threshold for interpretation, so I do not report the T-scores here but include the graphics for reference. This may only be interpreted by a psychologist with appropriate training in the use and interpretation of advanced psychometrics.

4.20. **Validity**: The degree to which Mrs. C's response-style may have affected or distorted the report of symptomatology on the inventory was assessed. Certain of these indicators fall outside of the normal range, suggesting that she may not have answered in a completely forthright manner, leading to a somewhat inaccurate impression of her symptoms.

4.21. With respect to negative impression-management, there is no evidence to suggest that the respondent was motivated to portray herself in a worse light than the clinical picture would warrant.

4.22. Equally, there is no evidence to suggest an effort to intentionally distort the profile in the other direction; however, the validity-indices suggest that the results may under-represent generally the extent and degree of any significant findings in certain areas due to her tendency to avoid negative or unpleasant aspects of herself. Her pattern of responses suggests that she tends to portray herself as being relatively free of common shortcomings to which most individuals will admit, and she appears somewhat reluctant to recognise even minor problems in herself.

4.23. Consistent with this defensiveness, Mrs. C's self-assessment is that she is relatively meek/gentle, although this was not borne out in assessment; it is more likely an indicator of her dependence in tandem with the loss of confidence in her ability to trust herself due to the consequences of

traumatic mental stress (including emotional instability and verbal aggressiveness), which constrains her normal confidence.

4.24. Despite the under-reporting, the problems that are actually reported are of greater intensity than those reported in people with her degree of defensiveness; these problems focus on mental trauma, on particularly physical signs of depression, stress in her immediate environment (most likely due to the impact of the injury on her family), unusual sensory-motor problems; preoccupation with physical functioning; frequent routine physical complaints; unhappiness; moodiness; poor interpersonal relationships; feelings of helplessness; poor sense of identity and personal value; irrational fears; disrupted thought-processes (evident in the clinical assessment); compulsiveness and/or rigidity; as well as hostility and bitterness.

4.25. All of these problems are reasonable and credible in light of the documentation of the injury and recovery-process as well as information gained from the clinical interview.

4.26. The conclusion is that, while the results are valid, the actual scores need to be interpreted with caution as they are likely to *under*-represent Mrs. C's actual condition.

4.27. **Mental symptoms**: The clinical scales of the PAI indicate a broad range of mental problems currently, focusing particularly on her mood, physical functioning, traumatic stress, resentment, emotional instability, confidence- and identity-problems, social isolation, and problems with her cognitive functioning. In addition to the purely physical injuries she has sustained, these mental symptoms have disrupted her life to a very significant degree, and have also affected her ability to carry out her normal social roles, including working and supporting her family.

4.28. However, it is evident that her social support-system, which consists almost exclusively of her immediate family, is committed to her, despite the intense pressure that this injury has put on them all. There is currently no evidence of suicidality, although there are significant risk-factors for this (including problems with vocational and general identity, aggressiveness, emotional instability, and intense distress). Mrs. C is more motivated and open to treatment for her mental condition than the general population, which is prognostically favourable in terms of the potential effectiveness of psychotherapy, despite her defensiveness and incomplete insight into her behaviour's effects on other people.

4.29. Given the above, it was useful to use the **Trauma Symptom Inventory** (2nd ed., or **TSI-2**; Briere 2011), a psychometric focusing on diagnostic symptoms of stress-disorders. With the TSI-2, the responses were also identified as valid, although there was evidence of atypical responding (ATR). This is an indicator of "over-endorsement" of items, which may relate to style of expressiveness, malingering, a cry for help, or intense distress. The validity indicator on this scale indicated that, while there was a likely demand for help (raw score 6), it did not distort the results so as to reach the cutoff for invalidating those results due, e.g., to malingering (raw score 15). Given the findings of the scientifically more sophisticated PAI-scales, it is forensically imprudent to consider malingering a reasonable

interpretation; given the other findings, the most reasonable interpretation would be a finding of intense distress.

4.30. The diagnostic symptoms reported in the TSI-2 as most problematic relate to intrusive experiences (T=79), hyperarousal (T=61, reflecting irritability and sleep-disturbance), depression (T=63), defensive avoidance (T-72), pain (T=76) and bodily problems (T=67), and sexual concerns (T=73). These are consistent with the findings above.

4.31. The intrusive experiences assessed by this scale include nightmares, flashbacks (i.e., sudden, intrusive sensory memories of a previously traumatic event), upsetting memories that are easily triggered by current events, and repetitive thoughts of an unpleasant previous experience that intrude into awareness. Mrs. C's most highly significant problems in this area lie in nightmares, which are nightly, very vivid, lucid, and horrific, and often continue on resumption of sleep following waking; Mrs. C reports waking primarily due to terror or physical pain. Trying to cope with these intrusive experiences, which are awful in their nature and remorselessness, causes Mrs. C to avoid sleep; she reported that she often gets to sleep at 5am and sleeps for 2-hour stretches at most. It also causes her to be fixated on reading news of other sorts of trouble in the wider world, which is a common but counter-productive way of trying to find consonance between one's emotional condition with aspects of external reality and thus defensively 'normalise' and manage that condition, which is actually severely abnormal and unmanageable.

4.32. Mrs. C's score on the Defensive Avoidance (DA) scale was significant. In many cases, high DA scores reflect a need to avoid the recall or triggering of memories of a specific traumatic event. They reflect the (generally) conscious, effortful process of cognitive and behavioural avoidance as a way of managing post-traumatic distress, rather than more basic mental defences such as dissociation. Individuals with raised defensive-avoidance scores often report attempts to suppress or eliminate painful thoughts or memories from awareness, and frequently attempt to avoid events or stimuli in their environment that might restimulate such thoughts or memories. In many cases, high scores on defensive avoidance reflect a need to avoid recall or triggered memories of a specific traumatic event (but not unrelated traumatic events that have happened to others). For some people, such as Mrs. C with her physical injuries, pain, and nightmares, it is not possible to avoid these thoughts or memories, which cause persistent anguish.

4.33. Putting the broad range of mental symptoms in context, there are very significant problems with sleep, energy, and sexual function; Mrs. C also reports sexual concerns (including anxiety and problems in sexual relationships), which have been exacerbated by the provision of only a single bed for the purposes of reducing pain at night, but she has to share a room with her son due to space-limitations in the house, and is unable to have sexual relations with her husband, due to both pain and this material problem. In a person with a previously recorded high libido, this naturally affects the intimacy of their relationship and exacerbates the already-severe stress on their relationship and on the turmoil in the family due to the consequences of the injury.

4.34. On the TSI-2, there was a raised score on the SOM scale (T=73), indicating a general preoccupation with bodily concerns, either for mental reasons or as a result of preoccupation with actual physical disease, dysfunction, or pain. This is consistent with the findings of the PAI (T=80). The PAI clinical profile is marked by a significant elevation on the SOM scale, indicating that the content tapped by this scale may reflect a particular area of difficulty for Mrs. C, who demonstrates a significant degree of somatic concerns, which is unlikely to be a surprise in her current situation but is also a typical finding in a person with PTSD with or without actual bodily illness.

4.35. Such a score on the PAI's SOM suggests a ruminative preoccupation with physical functioning and health-matters and severe impairment arising from physical symptoms. Statistically compared to the population-sample of the PAI, these physical complaints are likely to be chronic and accompanied by fatigue and weakness that renders Mrs. C incapable of performing even minimal role expectations. The majority of this concern is due to preoccupation with physical pain. Coping with intrusive experiences, physical pain, self-consciousness, and cognitive deficits, and the social consequences thereof, creates intense fatigue; the additional effort required in coping and the exacerbation of fatigue have significant and continuous effects on her cognitive and emotional function.

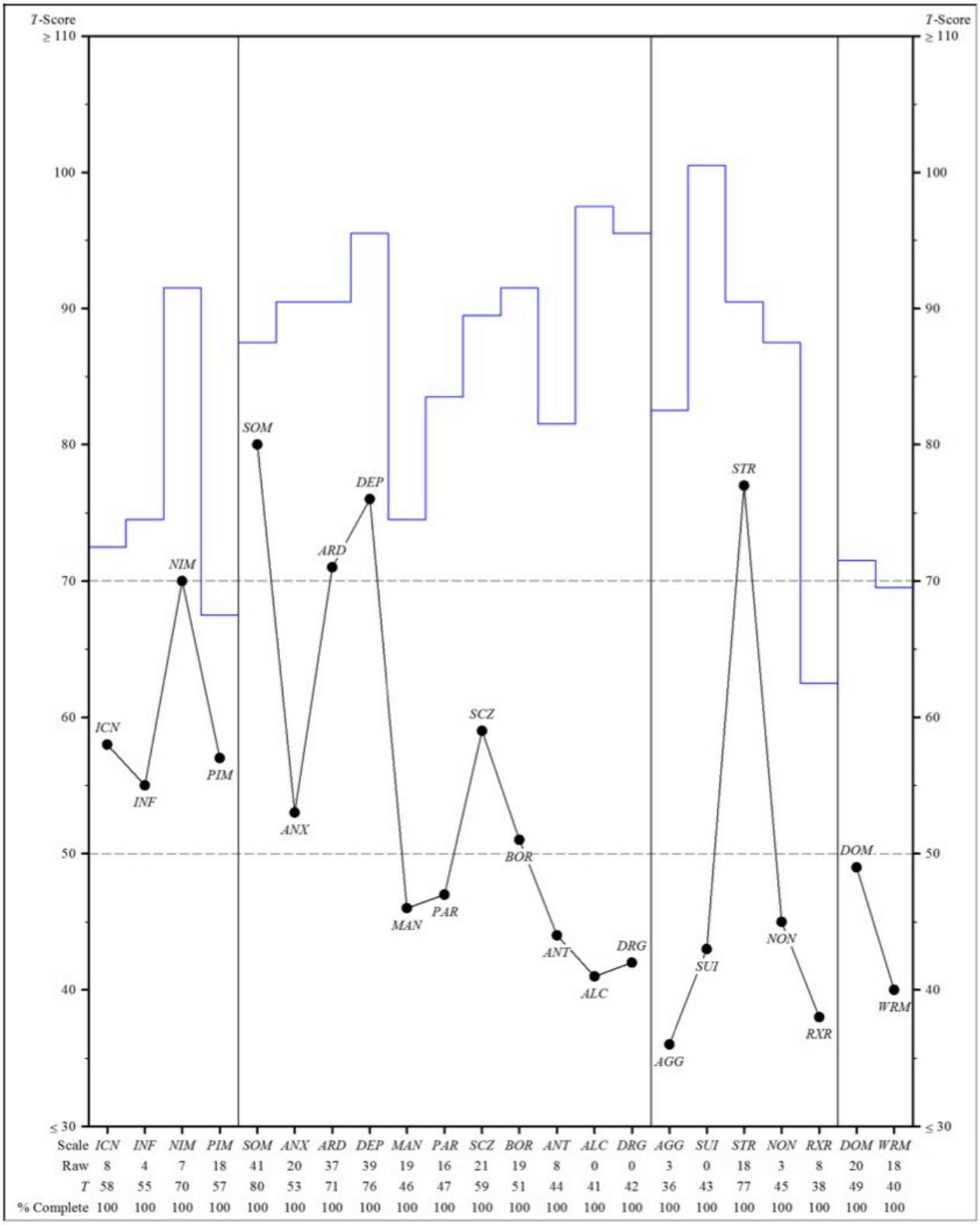
5. DIFFERENTIAL DIAGNOSES

5.1. Reviewing the above, in tandem with the clinical interview, it is evident that Mrs. C has a **Dementia or Neurocognitive Disorder due to (severe) Traumatic Brain Injury** (ICD-10 codes: S06.2, F02.8; DSM-5 code: S06.2X92, F02.81) with behavioural disturbance (specifically, mood-disturbance, abulia, sleep-disturbance, agitation and combativeness in the setting of confusion or frustration, *et sim*.). The specific labelling depends on the taxonomy used but they are in broad agreement, and the classification relies partly on memory-functions and partly on other cognitive abilities characterised by a deterioration in judgement and thinking, such as planning and organising, and in the general processing of information.

5.2. The degree of severity of this disorder is classified firstly on the basis of information gleaned from an informant and then supplemented by objective testing. It is designated as Mild when there are problems with only instrumental activities of daily living (e.g., housework, managing money); Moderate when there are difficulties with basic activities of daily living (e.g., cooking, dressing) or that represent a serious handicap to independent living, where only highly learned or very familiar information is retained; and Severe when the person is fully dependent due to cognitive deficits. In the medicolegal setting, it is reasonable to focus on the severity of the deficits as they appear in their more problematic presentation, as under stress, when compensatory mechanisms typically fail.

5.3. The severity of Mrs. C's disorder is characterised presently as "Mild- to-Moderate". The range of opinion would focus on whether the degree of the deficit is mild or moderate; the latter should be considered as primary in

Full Scale Profile



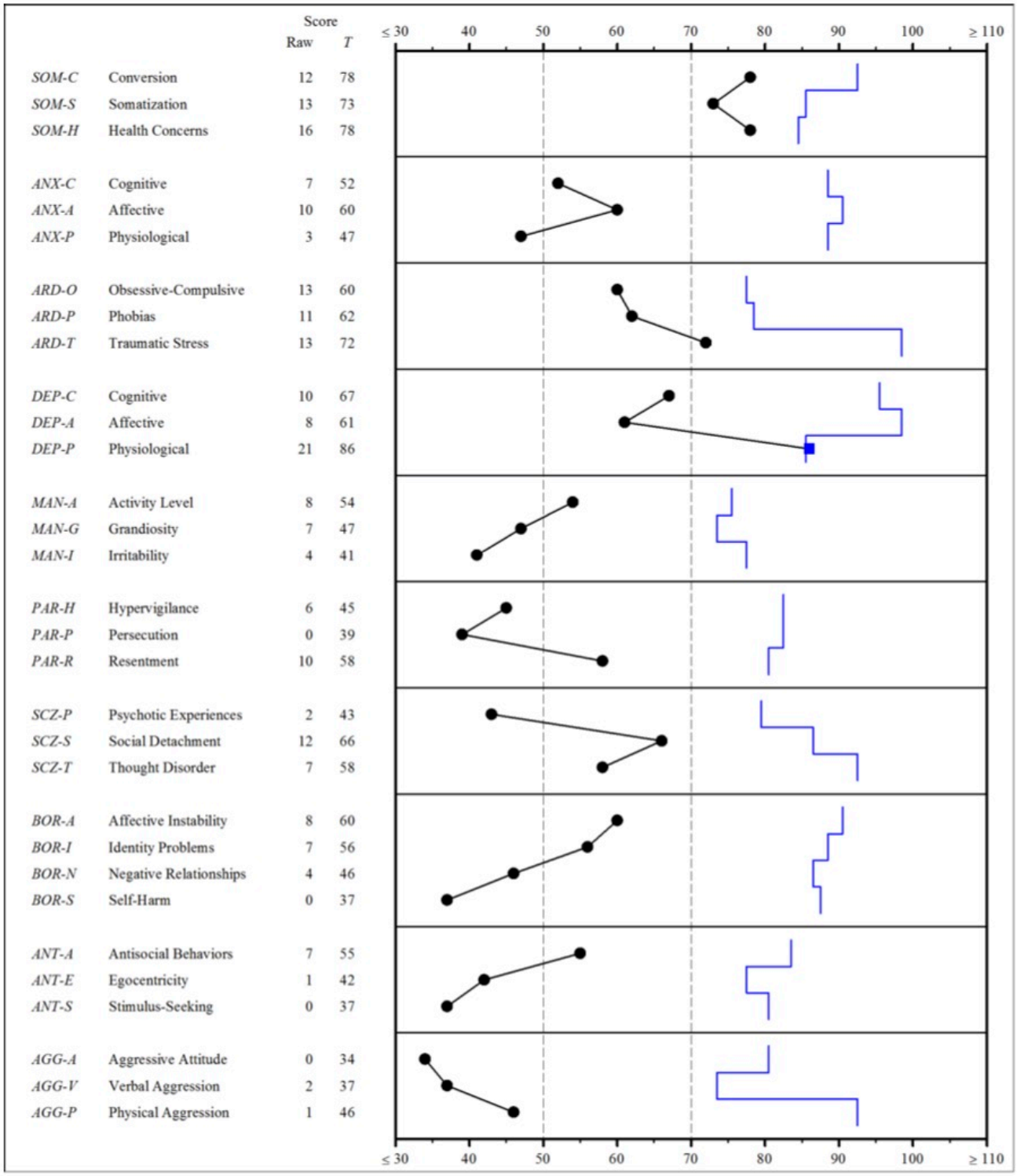
Scale	ICN	INF	NIM	PIM	SOM	ANX	ARD	DEP	MAN	PAR	SCZ	BOR	ANT	ALC	DRG	AGG	SUI	STR	NON	RXR	DOM	WRM
Raw	8	4	7	18	41	20	37	39	19	16	21	19	8	0	0	3	0	18	3	8	20	18
T	58	55	70	57	80	53	71	76	46	47	59	51	44	41	42	36	43	77	45	38	49	40
% Complete	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Plotted *T* scores are based upon a census matched standardization sample of 1,000 normal adults.

■ indicates that the score is more than two standard deviations above the mean for a sample of 1,246 clinical patients.

♦ indicates that the scale has more than 20% missing items.

Subscale Profile



Missing Items = 0

Plotted *T* scores are based upon a census matched standardization sample of 1,000 normal adults.

■ indicates that the score is more than two standard deviations above the mean for a sample of 1,246 clinical patients.

♦ indicates that the scale has more than 20% missing items

terms of diagnosis as this reflects the most significant impact of any given deficit and it should be noted that Mrs. C has been recorded as having moderate or severe deficits in orientation, sustained attention, information-processing, abstract reasoning, and auditory comprehension, which explains my conservative choice of 'moderate' severity in the coding of this disorder. The effects of physical deficits are not considered in the specification of severity of the cognitive disorder and a best estimate has been made to differentiate these effects.

5.4. Mrs. C's cognitive disorder is influenced by her emotional condition: for instance, someone with a stress-disorder only typically has problems with cognitive functioning that are due significantly to the interactions of emotional function with cognitive function, rather than purely cognitive deficits. Problems with orientation, speed of processing, memory, sequential problem-solving, executive functions, and task-management are likely to become severely problematic in the presence of certain types of stress, to which Mrs. C is highly sensitive.

5.5. Standard diagnostic practice encourages strongly a parsimonious approach to reaching diagnoses. Additionally, however, while estimating the emotional effects of the injury, guidance in the diagnostic taxonomies indicates that, if a person's symptoms meet the criteria for a mood-disorder (e.g., depression) that disorder should also be diagnosed even if some of the symptoms overlap with the neurobehavioural effects of brain-trauma.

5.6. In the context of the PAI, TSI-2, and the RNBI, it is evident that Mrs. C is suffering from a **Post-Traumatic-Stress Disorder** (ICD-10 code: F43.1; DSM-5 code: 309.81) of severe intensity. In reference to the relevant inclusion-criteria, she experienced a life-threatening event, has intrusive experiences (recurrent, persistent, and severe nightmares), is defensively avoidant of associated stimuli ("triggers"), has amnesia for the period (partial or complete), and persistent symptoms of increased mental sensitivity (including difficulty falling and staying asleep, irritability and outbursts of anger, hypervigilance, and difficulty in concentrating). Further, she has a negative self-image, decreased social participation and increased social and interpersonal detachment, and verbal aggressiveness. The disorder may reasonably be described as severe, due primarily to the presence, intensity, and continuity of the intrusive experiences and the symptoms' effects on her daily functioning.

5.7. Overall, Mrs. C's results point to a problem with depression. The PAI points to a depressive problems, whereas the RNBI does not specifically; the problems of under-reporting and apparently reduced insight and defensiveness about certain problems are relevant here, as is the issue of baseline symptoms (i.e., estimation of functioning pre-injury). It should be noted that the symptom-range of the relevant RNBI Emotional domain scales only relate to the affective symptoms of mood, not the cognitive, physiological, and behavioural symptoms that typically characterise depression, for example, such as problems with sleep, sexual function, appetite and eating, and so forth. Therefore, as with all psychometrics, these RNBI sub-scales should not be relied on solely as an index of, for example, a depressive diagnosis, but convergent, properly interpreted evidence should be considered as a whole.

5.8. With due consideration of the above, Mrs. C thus meets the criteria for an episode, of moderate-severe intensity, of a **Recurrent (Major) Depressive Disorder** with somatic syndrome (ICD-10 code: F33.11; DSM-5 code: 296.32) that has lasted since her brain-injury, specifically: a depressed mood, a loss of interest in pleasurable activities, decreased energy or increased fatiguability, loss of confidence or self-esteem, and evidence of diminished ability to think or concentrate, sleep-disturbance; additionally, there seem to be unreasonable feelings of worthlessness and guilt (e.g., at her inability to provide for her family). The range of opinion on this diagnosis might include a Depressive Disorder Due to Another Medical Condition (DSM-5 code: 293.83) or depression as an expression of PTSD; however, the depressive symptoms are of a broader nature than those seen in PTSD and qualify as an independent diagnosis, and they have been recurrently associated with financial and work-related problems (see below), not just brain-injury. The influence of both the brain-injury and PTSD makes this differentiation moot to a small degree, but, on the balance of probabilities, I believe it to be appropriate and sound.

6. RELEVANT MEDICAL HISTORY

6.1. Mrs. C has a long medical history and a very long medical record (949 pages), all of which I have reviewed; I restrict myself here to salient issues in the medical history rather than provide an overview as a whole.

6.2. **Physical history**: From her GP-records: in [date], Mrs. C had a partial oculomotor nerve palsy, which occurred after a tantrum but no prior history of head-injury was noted. In [date], she was recorded as having been knocked down by a car and having been unconscious for a few minutes. In [date] she was recorded as having tuberculosis of the lungs, in [date] (date uncertain from notes) a torticollis (next-twisting due to overactive muscle on one side), and a left radial nerve palsy in [date]. Over the years, she had a history of psoriasis, an autoimmune disorder affecting the skin, as well as ganglion pathology. Reviewing these symptoms, in the context of many other, non-specific symptoms, the possibility of sarcoidosis arises as a consideration (which remains); this was first raised as a possibility in [date] This consideration is on the basis that pulmonary tuberculosis is difficult to differentiate from pulmonary sarcoidosis, and that the diagnosis of sarcoidosis is supported over time by general malaise, swollen lymph nodes, ganglion pathology and relapsing facial palsies/paralysis, lung and skin pathologies, painful joints, red or sore eyes, sacroiliitis, et sim., most or all of which Mrs. C reported over time in her records. However, the relevance to this in terms of psychiatry extends only to neurosarcoidosis, which can affect behaviour and mental symptoms to an unknown degree (albeit that the incidence of depression is very high in sarcoidosis generally). None of the recorded symptoms provide sufficient evidence to suggest Mrs. C's physical history of autoimmune disease and potentially related symptoms to be linked to her history of mental symptoms and, on the basis of the scattered evidence available, may be discounted currently in the process of historic differential diagnosis.

6.3. **Mental and behavioural history**: In [date], Mrs. C was noted to be difficult at school, with teenage tantrums, and to be unmanageable at times. Her mother was recorded as having been severely depressed and neglectful, her father and older brother having physically abused her, there having

been parental violence and financial problems, her having been a bully at school, her being arrested at age 18-19 for repeated fighting, including a one-month remand for a road-rage incident, for which it was noted that she showed remorse. A clinical social worker was involved with the family in [date]. There are records of 'depression' with suicidal thoughts (but never of any plans), as well as of self-starvation followed by binge-eating. There are also numerous records over the years of an "agitated depression" which was diagnosed by a GP, along with a possible need for anger-management; in [date], the record shows very good gains in anger-management and impulsiveness, indicating good progress in treating her condition. It should be noted that a GP is not competent to carry out a differential psychiatric diagnosis and that this diagnosis was not supported later by a trainee psychiatric physician. The latter physician suggested cognitive-behavioural therapy (CBT) but not psychotherapy, evidencing a failure to understand that CBT is psychotherapy.

6.4. In [date], the records from that trainee state specifically that Mrs. C did not meet the criteria for an antisocial personality-disorder, noting a good relationship with her husband and a lack of interpersonal violence in her marriage (which is also recorded as a happy and mutually supportive marriage in [date]). There is a record of Mrs. C considering herself at that time to have an "inadequate" personality and that she considers that she deserves to have it. The same record notes the possibility of an impulsive "unstable personality"-disorder, but fails to consider post-traumatic stress disorder, likely due to both the physician's incomplete training and the poorer understanding of PTSD at that time. The medical record is marked by a lack of adequate differential diagnosis of mental issues and a lack of any concerted, effective treatment-plan; treatment is characterised by "fire-fighting" of problems with an aim to reduce symptoms rather than achieve solution, which is left to Mrs. C and her husband. She is also accused of hypochondriasis at one point ([date]) in reference to a repeated presentation of symptoms at yearly interval(s).

6.5. In [date], following the injury in question, Mrs. C was in the Intensive Treatment Unit (ITU) for 19 days. I will not review this aspect of medical history as it is redundant, given the other medical reports and evidence provided and that some of it lies outside my area of expertise.

6.6. From the record, it seems that 'treatment' for Mrs. C's mental condition prior to the injury in question had been with medication only, which has served to manage symptoms. Resolution of the underlying disorder has been left to Mrs. and Mr. C, which seems to have been a success in general terms.

6.7. **Overview**: The evidence records a set of symptoms that cluster around what is now called Complex Traumatic-Stress-Disorder (CTSD; Herman, 1992), which is a sub-type of PTSD caused by cumulative and interpersonal trauma, rather than a single event, and focuses on symptoms such as features typical of a borderline personality-disorder, impulsiveness, identity-damage, inadequacy, hyper-responsiveness to threat, and somatisation, all of which are recorded in Mrs. C's medical history. The primary symptoms of this condition (impulsiveness, anger and irritability, aggressiveness, agitation, felt inadequacy, etc.) are no longer notable in her

medical records between [date] and [date], when the injury in question occurred.

6.8. It is reasonable to conclude that Mrs. C suffered such abuse as a child that she developed CTSD, creating a set of behavioural symptoms that are strongly indicative of this disorder. Over time, with the help of her husband and approaches to anger-management, Mrs. C reduced this problem to a point where it was no longer presented as clinically important in the medical records, indicating that, from a clinical viewpoint, it had resolved. In [date], when the injury in question occurred, Mrs. C then developed the 'simple' sub-type of PTSD, characterised in this instance primarily by severely intrusive experiences (nightmares) and defensive avoidance, symptoms that were not recorded prior to the injury in question. This injury has also caused a recurrence and exacerbation of previously resolved symptoms such as irritability and hyper-responsiveness to threat (now further intensified by her cognitive deficits), as well as depression, the last related once more to concerns about financial and work-related issues in reference to her long-term outlook. Had the injury in question not occurred, there is reason to believe that these previously resolved symptoms would not have recurred and there would equally have been no reason for Mrs. C to develop the new symptoms.

7. APPENDIX: PSYCHOMETRICS

7.1. The **Ruff Neurobehavioral Inventory** (RNBI; Ruff and Hibbard, 2003) is a 243-item self-report questionnaire that assesses an individual's perception of the important dimensions of his/her daily life activities following a catastrophic event, such as a major illness or injury, and is typically used in cases of head-injury.

7.1.1. The RNBI can provide diagnostic insights and assess treatment-outcomes. During the recovery-phase, the RNBI can track the rate of improvement based on the patient's self-perceptions of daily problems; understanding the level of the patient's self-awareness is essential for diagnosis, as well as for treatment programs that depend on behavioural interventions. The responses are ecologically valid, in a scientific sense, because most questions refer to the performance of daily functional activities.

7.1.2. The RNBI uses two different types of questions to assess both pre-morbid and post-morbid intrapersonal and interpersonal functioning. The intrapersonal component evaluates the neurobehavioural functions that rely on internal resources. The interpersonal component reflects the individual's vocational, financial, recreational, social, and spiritual areas of functioning. Comparing the pre-morbid and post-morbid responses allows the clinician to identify functional areas that may have been directly affected as a result of the catastrophic event (illness or injury).

7.1.3. The RNBI consists of 17 "Premorbid Basic" scales and 18 "Postmorbid Basic" scales. Scale-scores are combined to create four Premorbid and four Postmorbid Composite scale scores that provide global information about the individual's perceived cognitive, emotional, and physical functioning, as well as his or her overall quality of life. The RNBI also contains four Validity-scales: two that assess abnormal response styles (i.e., Inconsistency and Infrequency), and two that assess impression management (i.e., Negative and Positive). The 17 RNBI Critical Items provide additional interpretive information according to various clinical areas of interest.

7.1.4. The RNBI offers a number of advantages over a general history form: it gathers data according to theoretical constructs and the responses are scaled psychometrically; it allows judgments based on normative data for either the general population or a clinical population; it captures pre-morbid functions in a comprehensive manner, facilitating a direct comparison between pre-morbid and post-morbid function; it allows the clinician to analyse comparable scales and explore potential interactions among reported symptoms; it presents information about perceived functioning that can be integrated with performance-based assessments of function.

7.2. The **Neuropsychological Assessment-Battery** (NAB; White and Stern, 2001):

7.2.1. This is a comprehensive, modular battery of cognitive tests developed for the assessment of a wide array of cognitive skills and functions in adults, aged 18 to 98 years.

7.2.2. It screens for both impaired and normal performance across a comprehensive range of functional domains; the Screening module allows users to determine which patients perform so poorly or so well on sections of the Screening Module that the administration of the corresponding and more thorough domain-specific module is unnecessary; patients would be expected to achieve similarly impaired scores on the respective modules.

7.2.3. The NAB combines the strength of flexible and fixed battery approaches to assessment and avoids ceiling- and floor-effects and the entire battery is normed on a large, single standardisation group ("co-ordinated norming") and also has demographically corrected norms.

7.2.4. The gradations of impairment used in the NAB are: Average < Below Average < Mildly Impaired < Moderately Impaired < Severely Impaired.

7.3. The **Behavior-Rating Inventory of Executive Function 2nd Edition, Adult Version** (BRIEF-A; Gioia, Isquith, Guy, and Kenworthy, 2005):

7.3.1. This is a standardised rating-scale developed to provide a window into everyday behaviours associated with specific domains of the executive functions in adults ages 18 to 90 years.

7.3.2. The BRIEF-A is composed of 75 items within nine non-overlapping theoretically and empirically derived clinical scales: Inhibit, Self-Monitor, Plan/Organise, Shift, Initiate, Task Monitor, Emotional Control, Working Memory, and Organisation of Materials. It is useful for a wide variety of developmental, systemic, neurological, and psychiatric disorders such as attention disorders, learning disabilities, autism spectrum disorders, traumatic brain injury, multiple sclerosis, depression, mild cognitive impairment, dementias, and schizophrenia.

7.3.3. The BRIEF-A can serve as a screening tool for possible executive dysfunction, as an index of the ecological validity of laboratory or clinic-based assessments, and as an indicator of individuals' awareness of their own self-regulatory functioning, particularly when both Self-Report and Informant Report Forms are used.

7.3.4. The Self-Report Form provides an understanding of the individual's perspective regarding their own difficulties in self-regulation, providing information that can be critical to the development of interventions. The Informant Report Form provides information about an individual's functioning in the everyday environment based on an informant's observations.

7.3.5. The BRIEF-A consists of equivalent Self-Report and Informant Report Forms, each having 75 items in nine non-overlapping scales, as well as two summary-index scales and a scale reflecting overall functioning (Global Executive Composite [GEC]) based on theoretical and statistical considerations.

7.3.6. The Behavioural Regulation Index (BRI) is composed of four scales: Inhibit, Shift, Emotional Control, and Self-Monitor.

7.3.7. The Metacognition Index (MI) is composed of five scales: Initiate, Working Memory, Plan/Organise, Task Monitor, and Organisation of Materials.

7.3.8. There also are three validity-scales: Negativity, Infrequency, and Inconsistency.

7.4. The **Personality-Assessment Inventory** (**PAI**; Morey, 1991):

7.4.1. This is a very thorough, 344-item measure of psychiatric status that has been standardised against several thousand respondents from both medical and community-based samples; its original standardisation-samples were of 1,000 census-matched normal adults and 1,246 clinical adults, which are the standardisation-samples relied on here.

7.4.2. This measure provides the clinician with an ability to provide a nuanced interpretation of clinical findings as well as to achieve a differential diagnosis in shorter time. I relied on the extensive documentation that comes with this psychometric for the interpretation of the various scales.

7.4.3. It includes several distinct measures of distortion in responding, making it difficult for respondents to manufacture results or to produce results that would be taken as reliable when they are not. These measures of distortion (Rogers, 2008) include:

7.4.3.1. creating a negative impression (i.e., that one is suffering more than one actually is)

7.4.3.2. creating a positive impression (that one is suffering less than one is)

7.4.3.3. malingering

7.4.3.4. inconsistency in responses

7.4.3.5. carelessness in reporting

7.4.4. There are also six supplemental validity-indicators:

7.4.4.1. Malingering Index — and more specific indicator of malingering relatively independent of psychopathology

7.4.4.2. Rogers Discriminant Function — a function developed to distinguish the profiles of bona fide patients from those

simulating psychiatric disorders (including both naive and coached simulators)

7.4.4.3. Defensiveness Index — additional index of effortful defensive responding and thus positive impression-management

7.4.4.4. Cashel Discriminant Function — another function to optimally distinguish between defensive and honest responding

7.4.4.5. ALC Est and DRG Est — an index reflecting a strategy for detecting the under-reporting of substance-abuse

7.4.4.6. Back Random Responding — an index of the tendency to provide answers on the second half of the psychometric that are inconsistent with responses from the first half of the test, possibly due to fatigue, confusion, scoring-errors by the psychologist, or non-compliance by the subject

7.4.5. Specifically, the PAI provides an assessment of the following factors:

7.4.5.1. somatisation and excessive concern over one's physical health

7.4.5.2. depression generally and in specific reference to diagnostic criteria relating to its cognitive, emotional, and physical aspects

7.4.5.3. anxiety generally and in specific reference to diagnostic criteria relating to its cognitive, emotional, and physical aspects

7.4.5.4. anxiety-related disorders, specifically phobias, obsessive-compulsive disorders, and traumatic stress disorders

7.4.5.5. mania generally and in specific reference to diagnostic criteria relating to activation, irritability, and grandiosity

7.4.5.6. paranoia generally and in specific reference to diagnostic criteria relating to hyper-vigilance, persecution, and resentment

7.4.5.7. schizophrenia-type problems generally and in specific reference to diagnostic criteria relating to delusions, social withdrawal, and thought-disorder

7.4.5.8. borderline personality disorder generally and in specific reference to diagnostic criteria relating to emotional instability, identity-problems, self-harming, and relational problems

7.4.5.9. antisocial personality disorder

7.4.5.10. aggression

7.4.5.11. stress from life-changes

7.4.5.12. openness to psychiatric treatment

7.4.5.13. perception of social support

7.4.5.14. suicidality and suicide-potential

7.4.5.15. alcohol- and drug-use

7.4.5.16. dominance in interpersonal relationships

7.4.5.17. positive orientation towards social relationships

7.4.5.18. violence-risk

7.4.5.19. treatment-potential

7.5. The **Traumatic-Symptom Inventory** (**TSI-2**; Briere, 2011)

7.5.1. This is a broad measure designed to evaluate post-traumatic stress and other mental sequelae of traumatic events, including the effects of sexual and physical assault, intimate partner violence, combat, torture, motor vehicle accidents, mass casualty-events, medical trauma, traumatic losses, and childhood abuse or neglect.

7.5.2. The TSI consists of 136 items and assesses a wide range of potentially complex symptomatology, ranging from post-traumatic stress, dissociation, and somatisation to insecure attachment-styles, impaired self-capacities, and dysfunctional behaviours. Normed and standardised on a representative sample of the United States general population, it consists of two validity scales, 12 clinical scales, 12 sub-scales, and four factors, specifically:

7.5.2.1. Validity scales:

7.5.2.1.1. Response Level (RL)

7.5.2.1.2. Atypical Response (ATR)

7.5.2.2. Factors:

7.5.2.2.1. Self-Disturbance (SELF)

7.5.2.2.2. Post-traumatic Stress (TRAUMA)

7.5.2.2.3. Externalisation (EXT)

7.5.2.2.4. Somatisation (SOMA)[a]

7.5.2.3. Clinical scale/sub-scales:

7.5.2.3.1. Anxious Arousal (AA)

7.5.2.3.2. Anxiety (AA-A)

7.5.2.3.3. Hyperarousal (AA-H)

7.5.2.3.4. Depression (D)

7.5.2.3.5. Anger (ANG)

7.5.2.3.6. Intrusive Experiences (IE)

7.5.2.3.7. Defensive Avoidance (DA)

7.5.2.3.8. Dissociation (DIS)

7.5.2.3.9. Somatic Preoccupations (SOM)[a]

7.5.2.3.10. Pain (SOM-P)

7.5.2.3.11. General (SOM-G)

7.5.2.3.12. Sexual Disturbance (SXD)

7.5.2.3.13. Sexual Concerns (SXD-SC)

7.5.2.3.14. Dysfunctional Sexual Behaviour (SXD-DSB)

7.5.2.3.15. Suicidality (SUI)

7.5.2.3.16. Suicidal Ideation (SUI-I)

7.5.2.3.17. Suicidal Behavior (SUI-B)

7.5.2.3.18. Insecure Attachment (IA)

7.5.2.3.19. Relational Avoidance (IA-RA)

7.5.2.3.20. Rejection Sensitivity (IA-RS)

7.5.2.3.21. Impaired Self-Reference (ISR)

7.5.2.3.22. Reduced Self-Awareness (ISR-RSA)

7.5.2.3.23. Other-Directedness (ISR-OD)

7.5.2.3.24. Tension Reduction Behavior (TRB)

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