Could the recent application of the Criminal Justice and Courts Act 2015 mean that Neuropsychologists may be asked to comment on whether symptoms reported are credible?

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Claimants are often seen by a variety of medical specialists in relation to their claim. Their symptoms are noted, diagnoses made, treatments recommended, and opinions are provided for personal damages claims. Recently, the Criminal Justice and Courts Act 2015 was used to have a claim thrown out entirely as it was shown the claimant was fundamentally dishonest.

However, from a clinical point of view, could there be reasons other than malingering that impact on the severity of the symptoms reported?

Could the actual complexity of the legal process in a personal injury claim create iatrogenic cognitive problems?

When individuals sustain a head injury or other event that may impact on brain functioning they may report cognitive difficulties, which may be assessed by a neurologist and a clinical neuropsychologist. Undertaking a cognitive assessment involves combining information from a variety of sources, such as behavioural observations, interviews, third party accounts, medical records, cognitive tests scores and questionnaires. It is recognised that the data obtained during a neuropsychological assessment needs to be a true representation of someone's abilities (Lezak et al., 2004). This requirement not only includes ensuring the validity and reliability of the measures used (psychometric properties of the tests), but also that the person being assessed is focused on the assessment and performs at their best level, for instance not too tired and not distracted (Stone & Boone, 2007). This is because test results based on the test norms assumes individuals assessed have applied their best 'effort'.

Symptom validity is an important concept when considering the accuracy of assessment. In North American neuropsychological professional guidelines, symptom validity can be defined as "the accuracy or truthfulness of the examinee's behavioural presentation (signs), self-reported symptoms (including their cause and course), or performance on neuropsychological measures" (Bush et al., 2005, p. 420). Symptom validity includes assessment of effort and other issues, such as over and under-reporting of symptoms. Tests of symptom validity are necessary as clinical judgment is unreliable (e.g. Bernard & Fowler, 1990; Heaton et al., 1978). In addition, symptom reporting can be influenced by context. Binder and Rohling (1996) carried out a meta-analysis of eighteen studies exploring the relationship between financial incentives, disability, symptoms reported and objective findings following a closed head injury. They found that higher levels of reported symptoms and disability were found in those involved in a compensation claim, despite having less severe injuries. While this finding does not necessarily imply that symptoms are malingered, it highlights the importance of considering the context of symptom reporting and using tests of symptom validity.

During an assessment, effort and honesty can vary for many reasons. It is advisable to rely on numerous sources when trying to establish whether assessment results truly represent someone's cognitive and emotional functioning. Care also needs to be taken to ensure that the results of neuropsychological assessment do not reinforce negative self-perceptions or even validate feigned symptoms. For instance, it is known that those affected by depression tend to overestimate their memory difficulties (Burt et al., 1995; Christensen et al., 1997; Rohling et al., 2002).

The US-based National Academy of Neuropsychology (NAN) paper (Bush et al., 2005; pp. 425-426) concluded that "When the potential for secondary gains increases the incentive for symptom exaggeration or fabrication and/or when neuropsychologists become suspicious of insufficient effort or inaccurate or incomplete reporting, neuropsychologists can, and must, utilize symptom validity tests and procedures to assist in the determination of the validity of the information and test data obtained." Iverson (2003) stated that any neuropsychological examination that does not include assessment of the patient's motivation to give their best effort is incomplete. In clinical contexts it is always recommended, but exceptions apply (Meyers & Volbrecht, 2003) such as with patients who require 24-hour care.

Currently there is no single test of effort or symptom validity (Mossman et al., 2012). There are various measures which vary in the time required for the administration, approach, technique, sensitivity and specificity. These are particularly important in aiding assessment of brain injury severity in cases of litigation (Binder & Rohling, 1996; Green et al., 2001).

However, even when poor effort and symptom over-reporting is identified, there is limited research evidence to support our understanding of the psychological phenomena underlying these issues. There is little evidence on the effect of other psychiatric conditions on test scores, such as bipolar disorder, personality disorder and somatoform conditions (Goldberg et al., 2007). The available evidence suggests that effort tests are relatively easy, even for individuals with neurological impairment, and factors such as age, pain, depression and anxiety typically do not affect scores on these tests (Etherton et al., 2006; Gervais et al., 2001; Strauss et al., 2006).

While malingering should always be considered in a medico-legal context due to the obvious financial secondary gains, feigning can also be present in routine clinical settings. Greiffenstein et al. (1994) estimated that 33-60% of individuals feign in order to secure treatment in neuropsychology clinics, while other studies have indicated 7% (e.g. Rogers et al., 1998). Similarly to previous studies, Fink et al. (2005) found that a third of new patients seen in a neurology service over a 3-month period met the criteria for ICD-10 and DSM-IV somatoform disorder. This means that a considerable number of those who fail to show sufficient effort during the examination may be affected by psychiatric disorders such as factitious and somatoform disorder (conversion disorder/functional neurological symptom disorder)

Traditionally (e.g. DSM-IV; APA, 2000) both factitious and conversion disorder have been considered to involve gains that can include managing stress or conflict, receiving attention and playing a 'sick role', but the behaviour was considered under volition in the first and outside conscious intentional in the latter. The new DSM-V (APA, 2013) however, states that the diagnosis of conversion disorder does not require the judgment that the symptoms are not intentionally produced. Definite evidence of feigning would suggest a diagnosis of factitious disorder if the gain was taking on a sick role and malingering in case of financial gains.

Other psychological processes that may underlie symptom over-reporting and poor effort on cognitive tests include a hostile, defensive or oppositional attitude towards the testing situation and examiner. This may be the result of factors such as fatigue, psychiatric disturbance and real neurological impairment. The scarcity of theories on effort and symptom validity is perhaps due to the fact that this field of research originated in the USA in the context of civil litigation and often malingering is thought to be

involved. Clinical presentations that are not consistent with an organic explanation for the symptoms (or symptoms more severe than what warranted) are also seen in clinical settings, where there is no clear reason for malingering. Medically unexplained symptoms and somatoform and related disorders are frequent in patients who attended outpatient neurology clinics (Fink et al., 2005).

In acquired brain injury the 'good-old-days' bias (Gunstad & Suhr, 2001, 2004; Iverson et al., 2010), and the 'diagnosis threat' (Ozen & Fernandes, 2011; Suhr & Gunstad, 2002, 2005) offer alternative reasons for underperforming on cognitive tests and over-endorsing of symptoms. This body of research explores underperforming (i.e. performing less well than one's true abilities on cognitive tests) and attributing overly positive attributes to life before an injury. Although these phenomena are different from symptom over-reporting (reporting or endorsing a higher number of symptoms or higher intensity than is usually the case in clinical populations) or endorsing non-valid symptoms (reporting or endorsing symptoms that are bizarre or not present in certain clinical groups), given the paucity of theories in this area, these may offer some ideas on how to understand non-valid responding.

The 'good-old-days' bias refers to the tendency to view oneself as healthier in the past and to underestimate past problems. This phenomenon appears to occur only after a negative event, such as a head injury (Gunstad & Suhr, 2001, 2004). Individuals affected by a mild traumatic brain injury (mTBI), those who have sustained a back injury and general trauma victims tend to over-estimate the degree of change that the injury has caused. When asked about themselves pre-injury, they tend to recall fewer symptoms than what is usually reported in healthy adults. According to Gunstad and Suhr (2004) individuals affected by post-concussion syndrome (PCS), because of their negative expectations and subjective distress, can report more current symptoms and fewer past symptoms, which reinforces their sick role.

Iverson et al. (2010) examined 90 individuals who had sustained an mTBI at work and reported ongoing problems. All individuals received compensation and were considered temporarily disabled. Consistent with the 'good-old-days' bias they endorsed fewer pre injury symptoms compared with the control group. Additionally, those who failed effort testing reported even fewer pre injury symptoms than those who passed effort testing.

Another study (Lange et al., 2010) had similar findings. This research involved 86 individuals who had sustained an mTBI and were seen in a clinical setting. Individuals who had sustained an mTBI endorsed more current symptoms than the control group, but individuals who had sustained an mTBI endorsed fewer pre-accident symptoms than the control group thereby supporting previous findings. Some of those who had sustained an mTBI were involved in litigation and although they were not more severely injured than the rest of the group, the group involved in litigation endorsed significantly more symptoms than those who were not involved in litigation. This gives support to the idea that litigation in itself may be involved in an iatrogenic process or that it could serve as an incentive for malingering.

An additional phenomenon that can impact on performance has been called the 'stereotype threat'. This occurs when people are faced with a task and subtly given information suggesting they are likely to struggle with performing the task. They exhibit behaviour consistent with the stereotype. This has been shown to impact on performance of ethnic minorities (Chan et al., 1997; Katz et al., 1965) and people from lower socio-economic backgrounds (Croizet & Claire, 1998). Stereotype threat effects on performance are thought to be due to cognitive, emotional and physiological factors, which lead people to adopt a behaviour they believe is consistent with expectations (Derks et al., 2008; Schmader et al., 2008).

Following this effect, Suhr and Gunstad (2002, 2005) and Ozen and Fernandes (2011) have tested the effect of 'diagnostic threat'. This relates to whether providing information on how a clinical condition is expected to impact on cognition can affect how people view themselves and their performance at assessment. Suhr and Gunstad (2002, 2005) carried out two studies, both of which involved samples of healthy non-litigant undergraduate students with a history of mild head injury (self-reported loss of consciousness between one and thirty minutes). Participants were allocated randomly to a 'diagnosis threat' or control group. The 'diagnosis threat' group received instructions that stated that participants had been selected due to their history of head injury as these injuries have been found to impact on cognitive functioning and the study aimed at further understanding the difficulties experienced by people who had experienced a mild head injury. In addition, participants were also given standard instructions (e.g. "You will be asked to complete a number of tasks today, some will be easy and some difficult, it is important that you try your best on all of them"). The control group received the same standard instructions prior to completing a cognitive assessment. When assessing cognition, if emphasis was given to the participants' history of head injury, the 'diagnosis threat' group's performance was worse than the matched control group. Suhr and Gunstad (2002, 2005) suggest that emphasis on diagnosis and

expected symptoms can impact on an individual's performance. Ozen and Fernandes (2011) observed similar findings. The individuals with a history of mild traumatic brain injury in the 'diagnosis threat' group reported more attention problems in everyday life than those individuals with a history of mild traumatic brain injury in a 'neutral experimental situation' and controls (individuals with no history of brain injury). However, objective neuropsychological tests of attention were less sensitive to the 'diagnosis threat' condition.

The research reviewed above highlights the difficulties that may be involved in assessing an individual for a personal injury claim. The process of seeing various specialists regarding symptoms sustained following an accident can make the symptoms more prevalent in an individual's mind. This can focus attention on symptoms, making them more likely to be noticed and reported more frequently. The legal process can also unwittingly reinforce the idea that symptoms and problems are expected following an injury and any dispute between the parties can make matters worse as individuals may start to feel that they have to prove their symptoms for these to be believed, which can be an obstacle to psychological recovery and generate stress (e.g. Wood & Rutterford, 2006).

Malingering is thought to be more likely when people are interested in pursuing material or financial gains (e.g. Robinson, 2003). To further complicate matters it is also possible that symptom over-reporting and poor effort on cognitive measures coexist with organic injury. It is therefore important that objective test measures are combined with data from other sources, including a psychological understanding of how the claimant may see themselves and their symptoms.

Often, medical experts do not have sufficient evidence to conclude that someone may be feigning their symptoms but it is often the consistency between symptoms, self and third parties' reports, and behaviour that is the key to differentiate between malingering and symptoms due to non-organic reasons. It is possible that expert neuropsychological opinion on symptom over-reporting and poor effort in cognitive testing may be used by defendants to claim 'fundamental dishonesty'. In order to prove dishonesty it would seem sensible that additional evidence is sought in each case (for instance CCTV evidence proving inconsistency of symptoms and likely deception), but it remains to be seen what will be regarded as amounting to fundamental. . ■

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