

Misrepresentation and Omission in Patient Self-Reports: A Model of Multidimensional Hazards

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SELF REPORTS IN HEALTH CARE

Self-reported methodologies are a primary source in healthcare for collecting information regarding an individual's health status.¹ In many cases, objective self-reports can assist medical professionals in determining the course and efficacy of treatment.² Unfortunately, patient misrepresentation and omission are common in patient self-reports, creating significant challenges throughout the healthcare system. Similar to challenges faced while conducting research, self-reporting has been known to create numerous hindrances.

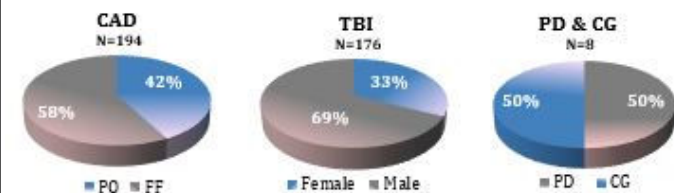


Thus, substantial reliance on self-reported research methodologies and practices could affect the quality of clinical care. This issue is particularly critical in neurosurgery in which patient conveyed misinformation can compromise the efficacy of surgical procedures, disease management, and outcomes.³ One example of many is misrepresentation of smoking cigarettes which has been widely recognized as a hindrance for appropriate fracture healing and a causal agent in nonunion and musculoskeletal degenerative disorders.⁴ Yet patients routinely misrepresent smoking related information. Furthermore, for individuals with severe or recurring brain tumors, the incidence of patient misrepresentation and omission increases when patients with severe cognitive problems are unaware of their current physiological state or are unable to properly measure their symptoms. Contemporary literature analyzing patient misrepresentation and omission pre and post-neurosurgery is finite and limited research has been conducted analyzing this multidimensional issue on patient outcomes and healthcare management. This project was designed to address multidimensional hazards contributing to the incidence of patient misrepresentation and omission for neurosurgery procedures and the impact on patient well-being and quality of care post-surgery.

METHODOLOGY

We analyzed three studies to illuminate types and recurring patterns of patient misrepresentation and omission in reported health data: 1) 15 year longitudinal study of 176 Traumatic Brain Injury (TBI); 2) five year study of health threats for 197 firefighters (FF) and police officers (PO); and 3) a comparison of reported symptomology for 8 pairs of individuals with Parkinson's disease (PD) and their caregivers (CG). We used the pattern of findings to create a model to illustrate caution areas for assessing patient self-reported data. In addition, a systematic literature review was undertaken. Literature obtained was evaluated to review self-reporting practices and procedures and identify key factors impacting quality of care and patient well-being.

Sample of Participants



OBJECTIVE VERSUS SUBJECTIVE REALITIES

Objective Realities



- Measurable facts
- No opinion or interpretation
- Heuristic

Subjective Realities

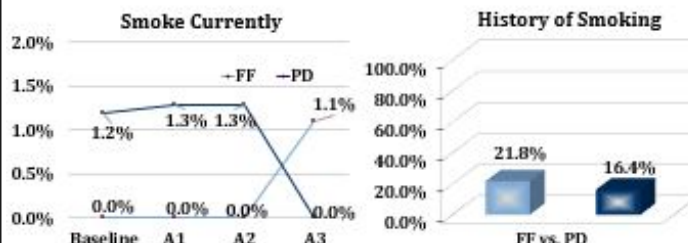


- Personal opinion, assumptions, interpretations, and beliefs

Often individuals' cognitive representations of response-outcome relationships may not directly mirror environmental representations thus differing systematically from objective data.⁵

EXEMPLARS OF MISREPRESENTATION AND OMISSION

POs consistently reported tobacco usage at the first (1.2%) and second annual follow-ups (1.3%) with a sudden decrease at the third annual follow-up (0.0%).



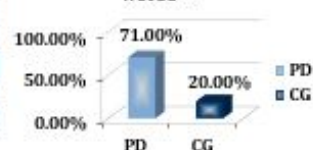
Other study domains we have researched have demonstrated a high incidence of patient misrepresentation and omission include self-reports in traumatic brain injury (TBI). For example, many participants reported that they never used drugs or alcohol. However, physiological tests reported substances in their system at time of injury.

Individuals who sustained a TBI while under the influence of drugs or alcohol

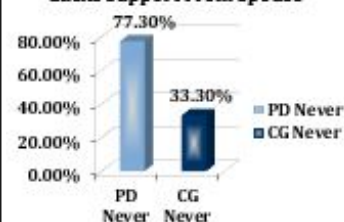


Psychiatric Associates	PD	CG
No proper equipment*	7.1%	26.9%
Full of pep*	16.1%	7.4%
Never lacks family support*	70.0%	32.0%
Sleep Implications	PD	CG
History of nocturia**	81.3%	40.0%
Nightmares**	62.5%	24.0%

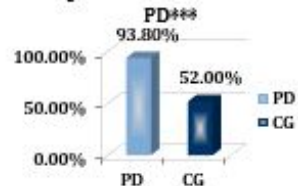
Expect health to get worse***



Lacks Support From Spouse*

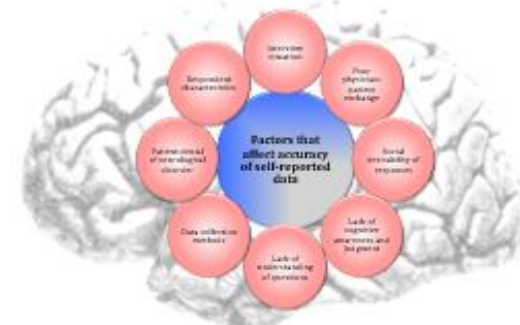


QoL Worse than Prior to PD***



*p < .05; ** p < .01; *** p < .001

SELF-REPORT ACCURACY



Discrepancies in clinical self-reported data arise due to a multitude of factors in the case of neurological disorders and conditions. Extrinsic factors include the interview situation, patient-physician communication, and the questions asked can negatively affect patient responses. For example, the patient may feel more inclined to answer truthfully if he or she is privately completing a paper questionnaire as opposed to verbally answering a question directly and in-person to a medical professional. On the contrary, a patient may submit false responses if the content of a questionnaire is confusing. In this case, verbal discourse between a patient and physician may yield clarity both in questions and answers. Intrinsic factors, respondents may report socially desirable data due to a negative stigma surrounding such conditions. Specifically in the case of severe neurological disorders, respondents may also not be fully aware of his or her current physiological state, therefore being unable to report accurate data. He or she may also be in denial or frightened of the situation thus leading to misrepresentation or omission in self-reports.

CLOSING THOUGHTS

Our findings mirror contemporary literature revealing a high incidence of patient misrepresentation and omission with higher prevalence observed in reports of lifestyle risk factors such as alcohol and tobacco usage, and compliance to health care plans. It is also the case that patients tend to have greater propensity to misrepresent or enhance personal desirability when they perceive a judgmental audience. The utilization of self-reporting practices continues to act as a source of serious contention. Indeed, Watson and his colleagues once proposed a moratorium on self-report follow-up studies due to serious threats to data accuracy.⁶ Moreover, several factors play a critical role in patient misrepresentation and omission on patient responses and behavior. Though environmental factors play a role in self-reporting, it is also important to note that patients may not report accurate information due to a negative impact in cognition stemming from a neurological disorder. As a disorder intensifies, a patient may lose touch with the reality of his or her symptoms or may feel denied about his or her situation due to loss of control. Also, in the presence of family members, the tendency to misrepresent increases. Healthcare management domains, including cardiac health, Parkinson's disease treatment, and recovery post-TBI, can be gravely affected by these behaviors, impacting patient well-being and outcomes. Because the proclivity for patient misrepresentation and omission is widely known, care providers may make estimations and assumptions to compensate for these errors. These estimations and assumptions may be inaccurate and result in potential treatment miscalculations. To address the issue of data accuracy in self-reporting, self-reported data should be evaluated in conjunction with objective clinical measures, along with a pattern of previous health behaviors. Given the multidimensional factors that impede self-reporting accuracy, we encourage intelligent caution when using these data to advance best practice modalities.

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