

# Delirium Management: Anything's Possible

Eamonn Eeles,<sup>1,2</sup> Renee England,<sup>3</sup> Andrew Teodorczuk,<sup>4</sup> Shaun Pandy,<sup>1,2</sup> Donna Pinsker,<sup>1,5</sup> and Aurelia Armstrong<sup>3</sup>

---

## RÉSUMÉ

Le délirium est un problème de santé majeur aux conséquences potentiellement graves. Malheureusement, la prise en charge de ce trouble est souvent sous-optimale. Nous considérons que les lacunes dans les soins offerts aux patients avec délirium sont liées aux particularités de cette condition, qui affecte la perception du « soi » de la personne qui en souffre. Cette atteinte entraîne un comportement hors de contrôle chez la personne avec délirium et l'expose à une déshumanisation mécaniste. Une solution consisterait à favoriser une vision élargie du « soi », inspirée de la philosophie et des sciences cognitives récentes, afin d'aider les cliniciens dans la compréhension du comportement pathologique en tant que manifestation de la perturbation de la pensée. Une approche centrée sur l'éthique des soins, intégrant un nouveau cadre pour la relation patient-soignant, est proposée. Considérées dans leur ensemble, les propositions novatrices émises pourraient faciliter l'élaboration d'un cadre de pratiques et de relations plus attentionnées et plus efficaces pour le traitement du délirium.

## ABSTRACT

Delirium is a major health care problem with potentially serious consequences. Sub-optimal management is an unfortunate but pervasive hallmark of the disorder. We argue that lapses in the care of delirious patients are related to the peculiarities of delirium as a disorder that affects the "self" of the sufferer. Therefore, corruption of self renders behaviour outside the control of the delirious individual and places the person at risk of mechanistic dehumanisation. A proposed solution is to foster an expanded view of the self, taken from recent philosophy and cognitive science, which would allow the clinician to understand pathological behaviour as indicative of disruption to thought. An ethics of care approach that reframes the patient/carer relationship is proposed. These unique propositions could, together, facilitate the development of a framework of more caring and effective practices and relationships for delirium treatment.

---

<sup>1</sup> Internal Medicine Service, The Prince Charles Hospital, Brisbane, Queensland, Australia.

<sup>2</sup> School of Medicine, Northside Clinical School, The Prince Charles Hospital, Brisbane, Queensland, Australia.

<sup>3</sup> School of Historical and Philosophical Enquiry, The University of Queensland, St Lucia, Brisbane, Queensland, Australia.

<sup>4</sup> School of Medicine, Gold Coast Campus., Queensland, Australia.

<sup>5</sup> School of Psychology, The University of Queensland, St Lucia, Queensland, Australia.

\* All authors declare that they have no conflicts of interest.

Manuscript received: / manuscrit reçu : 22/01/18

Manuscript accepted: / manuscrit accepté : 03/02/19

**Mots-clés :** vieillissement, délirium, éthique, médical, métacognition, conscience, simulation de patients, éducation

**Keywords:** aging, delirium, ethics, medical, metacognition, consciousness, patient simulation, education

La correspondance et les demandes de tirés-à-part doivent être adressées à : / Correspondence and requests for offprints should be sent to:

Eamonn Eeles M.B.B.S., M.R.C.P., F.R.A.C.P., M.Sc.

Internal Medicine Service

The Prince Charles Hospital

Brisbane, Queensland 4032

Australia

(eamonn.eeles@health.qld.gov.au)

---

## Introduction

In this article, we explore the reasons why delirium is poorly managed and offer some recommendations for change. Although it is widely acknowledged that there are some shortcomings in care that stem from a lack of

knowledge, system barriers, or institutional attitudes, these are insufficient to account for the magnitude of the health care gap (Inouye, Schlesinger & Lydon, 1999). These failings transcend disciplines (they affect doctors, nurses, and allied health alike), hierarchies

thereof, and systemic processes within hospital settings (Bhat & Rockwood, 2016). However, attempts to redress these deficiencies and improve the care of patients with delirium will be rendered fruitless unless the peculiarities of delirium are considered, and solutions tailored accordingly. Indeed, the fundamental properties of the delirium syndrome are most peculiar. We argue that the essence of delirium is a disturbance of consciousness, and it also comprises a disruption of the “self”. A collective blindness to the sufferer’s loss of self obfuscates the provision of good care even when good intent is present. A range of novel recommendations that draw on available evidence and relevant philosophical principles to overcome these conceptual weaknesses will be proposed. Finally, central considerations for quality delirium care will be offered, in addition to key problems and recommended solutions. This article will focus on the physician involved in the management of delirium care but will review the literature with respect to other disciplines when there are broader lessons to be learned from other health professions.

### *Delirium: A Pernicious Enigma*

#### *A Conceptual “Heartsink” for Doctors*

Arguably, an agreed conceptualization of delirium remains out of reach. Furthermore, what *is* known frequently *remains* unknown to the clinician, with non-detection rates as high as 70 per cent in practice (Inouye, Westendorp & Saczynski, 2014). This is understandable. Delirium does not neatly fit into teachings of standard linear causality in accordance with germ cell theory (Pasteur, 1880). Alternative models are on hand. The multifactorial model (Inouye et al., 1999), derived from the work of Zubin and Spring (1977), provides some conceptual succour to the clinician. Disappointingly, this model is not routinely applied in clinical practice, with the “stop and search bias”, a clinical reasoning heuristic, being the applied rule (Holttä et al., 2014). This results in a single identified cause for delirium, to the detriment of other, usually multiple, sources outside of the diagnostic net. Other models of delirium including the neurotransmitter hypothesis, aberrant stress response (Maldonado, 2013), and disturbance in the glycolytic pathway (Haggstrom, Welschinger, & Caplan, 2017) are all attractive mechanisms but agreement on their respective roles is lacking. A reconceptualization of delirium as a disorder of complex system failure offers a fresh perspective (Eeles, Teodorczuk, & Mitleton-Kelly, 2018). For this we must first consider that consciousness is an emergent property indicative of complexity and key to understanding complex system failure in delirium. Complex system failure may also offer a deeper understanding of the archetypal volatility and non-linear

relationships observed in delirium (Eeles, Teodorczuk, & Mitleton-Kelly, 2018). Such a biological model that provides insights into wider characteristics of delirium and response to treatment may aid understanding and practice in delirium care. Until a model for delirium can be conceived by the clinician at the bedside, delirium recognition will be impaired, and downstream consequences for the patient will persist.

### *Delirium and Management: A “Headache” for Nursing Staff*

Lack of a standard conceptualization in delirium would not matter so much if delirium were not so highly distressing for patients and carers. Yet, it also seems invisible to clinical staff (Inouye et al., 1999). There are additional factors that may contribute to this discordance. For example, the competing priorities of a busy clinical environment can disrupt delivery of care to a high-needs patient (with delirium) (Abbey et al., 2009). Also, altered behaviour in the patient presents an undeclared aspect of nursing practice that significantly impacts workload (Yevchak et al., 2012). Effective treatment strategies may therefore be difficult to apply, which may hamper translation of best practice ideals into clinical care (Teale & Young, 2015). Accepted management strategies, often in the form of multi-component “high touch, low tech” interventions, lack technological lustre and offer little in the way of traditional “kudos” among hospital staff (Teodorczuk, Mukaetova-Ladinska, Corbett, & Welfare, 2013). Even when nursing staff attempt to highlight the case of a delirious patient, this discourse is subverted by a biomedical and scientific narrative that serves to devalue their contribution to patient care (Kjorven, Rush & Hole, 2011). In addition, there is an understandable need for health care staff to protect themselves from the physical and emotional toll of caring for the delirious patient (Agar et al., 2012). Hence, rather like managing the intoxicated patient in the emergency department (ED), at worst, it becomes simpler for health care professionals to move such patients to another setting, or focus efforts on managing more deserving or simpler to manage patients on the ward.

Finally, the wider culture of the hospital is a vital indicator of delirium care. Historically, work-based performance is undervalued relative to academic prowess. The neglect of delirious patients, whose treatment is both time consuming and lacking in prestige, may be perpetuated within these hierarchical systems (Teodorczuk, Mukaetova-Ladinska, Corbett & Welfare, 2015). At a system level, patients with delirium are the first to fall through the cracks when there are problems with care processes for patients more widely (i.e., it becomes a surrogate marker for how well hospitals are performing). As hospitals struggle with fiscal cuts and the aging

population, delirious patients are receiving poorer and poorer management. Hence, they become casualties of wider cultural/system challenges (Francis, 2013).

Alongside the overt challenges to effective delirium care, it is worthwhile reconsidering what might be happening to the delirious patient that impacts on the nature of the caring relationship. For that, we need to first review the fundamental properties of the brain and mind in health and delirium.

### *Reflective Self, Delirium, and the Risk of Dehumanisation*

*Cogito, ergo sum* (Descartes, 1644). In other words, reflective consciousness is central to the self. The capacity for reflection is what allows a person to unify and direct his/her awareness of the physical and social environment and thereby successfully interact with it. This capacity is therefore vital (although not sufficient) for intentional action, and it is central to personal responsibility. It is also key to self-awareness and self-understanding, and therefore plays a central role in self-identity and how a person presents him/herself to the outside world. This emergent property of reflective consciousness (Eeles, Teodorczuk, & Mitleton-Kelly, 2018) relates to metacognition, or *thinking about thinking*. This metacognition is an ability state brought about by orderly relationships between hierarchical and functional networks within the central nervous system (CNS) and its supporting connectivity. In particular, the default mode network (DMN), subserved through midline structures such as the posterior cingulate and medial prefrontal and angular gyrus, is responsible for such off-task thinking (Kucyi, 2018).

Arguably, delirium can be considered a disorder of reflective consciousness. Earlier iterations of clinical criteria in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) have incorporated consciousness disturbance as a key manifestation of delirium as per Table 1 (American Psychiatric Association, 2000). In the fifth edition (DSM-5), disturbance of awareness<sup>1</sup> can be interpreted as being synonymous with consciousness disturbance or clouding (American Psychiatric Association, 2013). The measurable surrogate for

this disturbance is disrupted attention, the sentinel gate to reflective consciousness (Zeman, 2001). Pathological co-activation of the DMN with task-positive structures is likely responsible, at least in part, for disruption of reflective thought and consciousness disturbance in delirium (Choi et al., 2012, Eeles, Burianova, Pandey & Pinsker, 2017).

In the state of delirium, reflective consciousness is therefore disrupted and populated with clinical features such as strange beliefs, disorganized thinking, and hallucinations. This disturbance has profound consequences for the self, because thoughts thus corrupted by delirium are fundamentally unlike the ruminations of the non-delirious person; the patient's foundational perception of his/herself and relationship with the environment is so altered and diminished that the contents of his/her conscious awareness becomes divorced, or at least adrift from, the "normal" self. Measurement of this form of consciousness content is incorporated into clinical assessment with disturbance therein regarded as one of the key criteria for delirium (Inouye et al., 1990).

Severe disruption of delirious patients' capacity to comprehend and engage with their environment, and the significant alteration in their expression of self has a range of effects that introduce unique issues for physicians. First, the reduced capacity to identify with the patient reduces the capacity to relate to, or empathise with, him/her, which can negatively impact on the diagnosis, care, and family. Second, the distress inherent in such a significant change from normal functioning of the self can be emotionally challenging for staff and significant others. Third, and most importantly, the interruption of self substantially undermines the reciprocity of the patient/clinician relationship, and this explains why delirium care is so often substandard. The absence of normal agency in the patient is what increases the burden on health care staff, and the difficulties it introduces are associated with reduced quality of care and the consequent infliction of unintended harm, something that Martinsen (2011) describes as "harm in the absence of care". Martinsen stresses that harm of this type is not deliberately inflicted;

**Table 1: DSM-5 classification of delirium**

- 
- A. Disturbance in *attention* (i.e., reduced ability to direct, focus, sustain, and shift attention) and awareness (*reduced orientation to the environment*).
  - B. The disturbance develops over a short period of time (usually hours to a few days), *represents an acute change from baseline attention and awareness*, and tends to fluctuate in severity during the course of a day.
  - C. An additional disturbance in cognition (e.g., memory deficit, disorientation, language, visuospatial ability, or perception).
  - D. *The disturbances in Criteria A and C are not better explained by a pre-existing, established, or evolving neurocognitive disorder and do not occur in the context of a severely reduced level of arousal such as coma.*
  - E. There is evidence from the history, physical examination, or laboratory findings that the disturbance is a *direct physiological consequence of another medical condition, substance intoxication or withdrawal (i.e., caused by a drug of abuse or to a medication), or exposure to a toxin, or is caused by multiple etiologies.*
-

rather “it is caused by the absence of active beneficent participation in the relationship between physicians and patients” (Martinsen, 2011). The absence of beneficent participation on the part of the carer can be explained as the result of a perceived lack of analogous participation on the part of the patient, when the delirious person is perceived as deliberately uncooperative, either characteristically or uncharacteristically, or as being unable to participate. Thus, the lack of agency and altered self-expression caused by delirium interfere with the clinician’s ability to perceive the patient as a self who is worthy of care, which can result in patients being labelled with the behaviours they exhibit. This can even occur to the extent that the patient is no longer perceived as a self at all, which opens the possibility of mechanistic dehumanisation (Francis, 2013, Haslam & Loughnan, 2014). Under the increased burden of care, and especially when the sufferer’s self is no longer recognised, the focus of clinical staff may be reduced to managing a delirious patient’s behaviour, in contradiction to the principles of person-centred care (Kitwood, 1993, Mitchell & Agnelli, 2015). This would explain the findings from reports into hospital failings, where patients with delirium have been given antipsychotics to simply quell their behaviour, rather than assessed to determine and manage its causes (Francis, 2013).

In sum, it is because delirium affects sufferers at the personal level that it is especially complicated, variable in presentation, and challenging to manage. This is what undermines a carer’s ability to identify and empathise with patients, and decreases levels of participation in care, both for the patient and staff. Together, these factors greatly increase the risk that the patient will be dehumanised, becoming an object of medical intervention and/or behaviour management rather than a person requiring treatment. Ultimately, this results in a level of care that falls well short of desired standards.

Addressing the problems that lead to dehumanisation and therefore substandard care is far more challenging than addressing those stemming from a lack of knowledge or institutional attitudes. We will discuss a range of approaches aimed at “re-humanising” the delirious patient: reconceptualizing the self, and adopting an “ethics of care”.

### *Re-humanising the Delirious Patient*

#### *Approach One: Reconceptualizing the Self*

When the disruption of agency and expressive self-behaviours entailed by delirium are construed as a loss of self per se, rather than as a (severe) disturbance of the self, the self is equated solely with “reflective” consciousness. This is problematic both conceptually

and in practice, especially in the clinical setting. In recent philosophy, a distinction has been made between this formerly common, reductive view of the self, in which it is essentially a mental entity primarily identified with reflective consciousness, and an expanded view of the self, in which it also includes the pre-conscious and unconscious “states of character” that have a more bodily or social origin. These “states” comprise the various character traits, beliefs, emotional dispositions, principles, values, and personal attachments that necessarily underpin, and are central to, a person’s reflectively conscious self or identity (Kristjánsson, 2010; Mackenzie, 2007). There is growing recognition in the literature in philosophy, psychology, cognitive science, and neuroscience that conceptualizing the self in terms of the reductive, mentalistic view is misleading and, indeed, mistaken because reflective or “higher” consciousness is dependent on and crucially shaped by underlying bodily and environmental structures. In other words, it is increasingly acknowledged that higher consciousness is necessarily “embodied” and “embedded”, and therefore unavoidably affected by changes in the body and the environment.

The way that this occurs can be illustrated using neuroscientist Damasio’s (1999) conceptualization of consciousness as a three-layered neurological map. The first layer consists of largely unconscious neurophysiological signals produced by the biochemical functions of the body, and the feedback and feedforward mechanisms that automatically regulate and sustain internal organic stability. It forms the *proto-self*. The second layer comprises our pre-conscious perception of the environment and the impact it has on us, and also of any “breakthrough” signals from the proto-self (i.e., those that indicate that a threshold for maintaining homeodynamic equilibrium has been breached). This moment-by-moment, background awareness of our environment and bodily state is the *core self*. It forms the foundation for the third and final layer, which is conscious awareness. Here, the transient experiences that make up core consciousness are joined together into a continuing sense of self by the reflective capacities to remember and anticipate. The top level of the map thus involves a sense of time, as well as conscious thoughts, language, and secondary emotions, which further organize and make sense of core experience. This *autobiographical self* is the architect of self-identity, self-expression, and agency. Damasio’s conceptualization shows that the highest aspects of the self, which we associate most strongly with the person per se, are closely dependent on the lower aspects, particularly the core self. It also helps explain why changes in these body states and interactions with the environment cannot only disrupt the ongoing regulation of bodily integrity but can also cause profound changes



at the personal level. The reductive view, then, incorrectly equates the self to the autobiographical self alone; the expanded view recognises its unavoidable reliance on the core and proto-selves, especially as these are not truly separate “selves”, but rather different aspects of a single self (Damasio 1999; Johnston & Malabou, 2013; Ravven, 2003).

### *Implications for Care in Delirium*

By reconceptualizing delirium as a disturbance (versus a loss) of self, it follows that as long as overall homeodynamic stability has not been irretrievably lost, some aspect of the self remains present. Just as one or more broken bones would not, in all but the most extreme cases, be taken to indicate the loss of a person’s skeletal structure, the disruption of one or more aspects of the self does not automatically indicate a loss of self *tout court*. More importantly, if the basic functions of the core self remain, the *experiencing* self is still present. Therefore, although the disruption or changes in agency and the expressive aspects of the autobiographical self that are entailed by delirium interfere with recognition of the self by others, the absence of these usual markers of self should not be taken to indicate the absence of self per se.

To avoid delirium sufferers losing their subject status in the eyes of clinical staff when they cease to be regarded as active participants in their treatment program; that is, to avoid their becoming mere objects of medical intervention and behaviour management strategies, it is essential for staff to understand that the patient’s core self is (largely) intact (Johnston & Malabou, 2013). To put this more simply, even with patients in the most floridly pathological states, carers must keep in mind that the abnormal conscious state of a delirious person indisputably remains a human experience. The thoughts and behaviours that manifest during delirium are inherently “non-self”, insofar as they do not relate to the patient’s habitual self-understanding or way of being, but not insofar as they no longer relate to his/her self at all. Indeed, the patient, too, is responding to his/her behaviour problems and the abnormal mental state driving them (Kristjánsson, 2010). Delirious patients’ symptoms should therefore still be treated empathetically, the more so because the experiential nature of these symptoms is universally unpleasant. As we have discussed, the disturbance of consciousness means that they experience the world and even their own minds as alien. The expressed pathologies of delirium are challenging but ideally, the carer must be able to look past them to where the person still resides.

A second important implication relates to the behavioural aspect of delirium. It becomes clear under this description of the self how and why the changes in

“lower” physiological processes that are associated with, or cause, delirium have such wide-ranging and significant impacts on these persons as we generally think of them (i.e., on the autobiographical self); the delirious patient’s experience of his/her own body and environment, on which his/her ongoing sense of self crucially depends, is severely disrupted. This, in turn, shows why apparently simple tasks such as walking may be so much more arduous than normal, and why such effects cannot be addressed by means of the executive cognitive functions associated with the autobiographical self (i.e., by the patient employing intentional action or “making an effort”). The orderly relationships among the various CNS systems required for executive control cannot be restored through an effort of will, not only because willed action requires these interactions to be largely intact in the first place, but also because their disruption stems in part from disorder in the underlying systems on which they depend.

The expanded view of the self thus also makes it clearer that the delirious patient is not ultimately in control of, or responsible for, the behavioural aspects of the disorder. Currently, for example, it is common for a delirious patient to be labelled as “the poor historian” or suffering from “acopia”, both pejorative labels that stigmatize the patient. Downstream in the rehabilitation process, the patient may be deemed “non-compliant” or “unwilling to participate” in processes that would otherwise be contingent for a good recovery, such as mobilising during physiotherapy sessions. Reconceptualizing the self would facilitate the recognition that, in reality, it is likely that these patients may have impaired communication and be unable to participate, rendering them especially vulnerable. Indeed, the inability to complete performance-based tasks has been consistently shown to be a poor prognostic sign (Eeles, White, & Bayer, 2009). The Maslovian hierarchy of need in delirium (basic requirements for compassion, comfort, dignity, familiarity, food, and fluid) is present but largely unmet, although the external signals of its deficiency may be less obvious (Eeles, Davis & Bhat, 2017). Therefore, the basic needs of the “fractious and demanding” patient with delirium must be proactively identified and addressed, primarily to reduce the impact on their weary selves who desire the return of coherence and normality to their consciousness more than anyone else.

In sum, the common reductive view of the self carries the risk that the expressive and behavioural disruptions entailed by delirium are taken to indicate uncooperativeness or even an absence of self, which is associated with mechanistic dehumanisation of the sufferer and substandard care. Adopting an expanded view of the self would facilitate recognition of the part of carers that the delirious patient’s self is disrupted rather than absent, as well as highly vulnerable, so that his/her

prospects for recovery are more than usually dependent on the quality of care that he/she receives, as shown in Table 2.

### Approach Two: Adopting an “Ethics of Care”

“Re-humanising” the delirious patient aims to improve recognition of patients’ selves, in spite of their subverted self-expression and agency, by expanding the concept of self and attempting to develop relevant experiential knowledge. Given the crucial role the normal markers of the autobiographical self play in interpersonal interaction, however, achieving such recognition may potentially be difficult. A supplementary approach for preserving the patient’s dignity would be to adopt an “ethics of care” model. The “ethics of care” approach is particularly well suited to respond to the ethical challenges posed by the unique needs of the individual with delirium in the health care context because it is less dependent on recognition of the agent-self and, instead, focuses on the relationship between clinicians and care-receivers. In particular, it provides moral guidance for clinical practice by helping to clarify the grounds for the relationship between clinicians and patients, especially as it relates to addressing the particular needs of patients affected by delirium (Teodorczuk, Mukaetova-Ladinska, Corbett, & Welfare, 2014).

As we have outlined, a key factor in the dehumanisation of delirium patients is their reduced capacity to participate in the patient–clinician relationship. An ethics of care approach de-emphasizes the reciprocity of relationships, and is grounded in the normative assumption that we are “morally addressed” by the vulnerability of others (Vukov, 2017). To be addressed by another’s vulnerability is to experience, in Held’s words, the “compelling moral claim of the particular other” (Held, 2006). Thus, it is to feel oneself relationally bound to attend to, and meet, the needs of that particular other for whom one takes responsibility within the context of a specific relationship.

This formulation reveals three things about an ethics of care approach. First, it accords centrality to the relations of interdependence that bind us to one another. In other words, it invites us to conceptualize people as

affected by, and involved in, relations with others, rather than focusing, as many traditional moral theories do, on a capacity for independent and autonomous interaction based on rational decision making (see Appendix 1). Second, it is committed to a contextualist approach to moral judgment: cultivating moral understanding about how best to respond to the vulnerability of the other requires finely grained perception and reflection upon actual circumstances, and an ethical response to the other that is sensitive to his/her particular needs. Finally, it insists that a person’s moral reflections, his/her thinking about what to do in a specific situation, need to be motivated by the right reasons; namely, by care and concern for the other’s well-being. Care ethics thus sees emotions such as sympathy, compassion, empathy, sensitivity, and responsiveness as valuable sources of understanding about what morality requires. Because care ethics promotes emotional responsiveness to the needs of others as a valuable source of moral guidance, it is better able to articulate the immersed perspective of the moral agent engaged in caring practices than are moral theories that emphasize the impartial standpoint of the detached, objective moral theorist. In other words, it makes explicit the unavoidable (inter)personal facet of the relationship between caregivers and care-receivers.

Under this approach, then, care may be defined as:

- (1) A *value*, which guides our decisions about how to act by focusing our attention on caring relations and how to improve them;
- (2) A *disposition*, manifest as an attitude of responsiveness to vulnerability and need;
- (3) A *virtue*; namely, a cultivated skill set for responding to patients with empathy, compassion, attentiveness, sensitivity, and respect; and
- (4) A *practice* of self-consciously engaging in caring relationships.

Care under this definition, according to Held (2006), has “attributes and standards that can be described but more important that can be recommended and that should be continually improved as adequate care comes closer to being good care”. Thus, to count as a good practice of care, caregiving must alleviate illness or meet specific needs. In the context of the person with delirium, the care ethics approach shows that

**Table 2: Problems in delirium care, causes, and suggestions for change**

Problem	Cause	Result	Traditional Approach	Applied Thinking
Poor management of delirium	Knowledge of delirium limited to the theoretical	Reduced awareness of delirium	Medical education	Simulation exercises
	Flawed notion of responsibility for behaviour in delirious patient	Misattribution of behaviour	Serendipity	Learning packages
	Absence of recognition of delirious patient’s self	Reduced empathy for delirious patient Mechanistic dehumanisation	Clinical governance; i.e., when cases go wrong	Staff support

good care must begin with an acknowledgment of the extreme vulnerability of the sufferer. It is, understandably, easier to be caring and empathetic towards someone who is cooperative, congenial, and grateful for the care provided. However, clinical staff must learn to recognise the taxing behaviours often involved in delirium as indicators of a helplessness that requires *increased* rather than decreased attention, responsiveness, and respect. A deficit in the patient's participation calls for an expansion of the clinician's participation in order to form and maintain a therapeutic relationship (Held, 2006). An ethics of care approach makes this clear, and shows how explicitly and self-consciously addressing various aspects of the caregiving relationship, rather than the individual capacities of the patient or carer, can improve care (see Table 2). Aside from assistance with diagnosis, family engagement may help to ground clinicians from all quarters and help amplify the voice of the delirious patient (Neville, 2006) to re-humanise the patient (Neville, 2008).

### Synthesis of Key Problems and Recommendations

What are the clinical implications of this philosophical exploration? Overall, there are three central considerations for ensuring quality care for patients with delirium.

- (1) In terms of diagnosis, clinical staff need to recognise that the behaviours of a delirious person are crucially *non-self* (i.e., they are not normal in the elderly, and also out of character for that particular person).
- (2) With regard to quality of care, clinical staff first need to recognise that insofar as the behaviours are non-self, they are not intentional or something for which the patient can be held ultimately responsible. Delirious patients' lack of participation in their care is out of their control, and in fact indicates significant vulnerability. It therefore should be met with increased, not decreased, participation on the part of carers.
- (3) Clinical staff also must recognise that the presence of non-self behaviours indicates a (radical) *disruption* of self, rather than the disappearance or absence of self. As long as the processes that constitute the proto- and core aspects of the self retain sufficient integrity to continue functioning, the core, embodied self remains, and again is peculiarly vulnerable.

In practice, as we have described, care of the delirious patient can fall short in a variety of ways for a range of reasons, and we have outlined a number of principles for change based on these understandings as shown in Table 2.

### Practical Solutions

Re-humanisation through an ethics of care approach is not just an abstract concept and can be implemented using an array of practical solutions.

### Simulation Exercises

Altering perceptions through simulation exercises may help to improve understanding of delirium. Simulation exercises would "flesh out" the conceptual understanding of the loss of self with the experiential aspect that is so crucial to clinical care (Eeles et al., 2018).

### Learning Packages

Learning packages in the form of interviews with patients who describe the experience of delirium from a position of clarity after resolution of the disorder can be powerful instruments (Teodorczuk, Harrison, & Laverty, 2011). The viewer can recognise the intensity of the experience and just how unpleasant it can be, which can help promote empathy for future cases. Certainly, in the nursing field, sharing of lived experiences in an effort to conceptualize alternative future possibilities has been shown to be an important educational tool in delirium care (Bélanger & Ducharme, 2012, 2015). The individual is seen with a sense of personhood, with humanity and dignity intact. On this basis, pathological behaviour is acknowledged as an aberration, as extrinsic to and outside of the control of the sufferer, enabling person-centred treatment.

### Staff Support

The personal impact of the increased relational demand, and the unconscious effects it may elicit are important to reconcile. We have cited the physical and emotional toll that caring for a delirious patient has on nurses. The increased burden on carers must be accounted for in work practices, and appropriate support for staff put in place. This support should be multidisciplinary, because, after all, delirium is everybody's business.

### Conclusion

The very nature of delirium as a disorder of *reflective* consciousness represents a disturbance in the self. A novel approach for "re-humanising" the delirious patient is to adopt an expanded view of the self and an ethics of care philosophy. Applied to the health care context, the conceptual revision of self would allow the carer to better understand the nature of the significant disruption of consciousness that underlies pathological behaviours in delirium, and therefore to construe these as extrinsic to, and outside the control of, the sufferer. The ethics of care stance reframes the patient/carer relationship and highlights the vulnerability and increased needs of the delirious patient. Both assist in avoiding the pitfalls of mechanistic dehumanisation, thereby promoting more caring practices and relationships by assisting clinicians to recognise and connect with the patient's self. They also underline the crucial



importance of appropriate support for staff. Finally, to maximise the impact of these recommendations with the intent of transforming attitudes and behaviours towards patients with delirium, improved delirium care literacy through experiential learning and an environment of institutional change are required.

## Supplementary Material

To view supplementary material for this article, please visit <https://doi.org/10.1017/S0714980819000230>

## Note

<sup>1</sup> A reductive but generally accepted definition for the state of consciousness is self and environmental awareness (Descartes, 1644)

## References

- Abbey, J. A., McCrow, J., Whiting, E., Pandey, S., Parker, D., & Sacre, S. M. (2009). Understanding the barriers to recognition and management of delirium in the acute post-surgical setting. *Alzheimer's & Dementia*, 5(5), e1. doi: 10.1016/j.jalz.2009.05.253
- Agar, M., Draper, B., Phillips, P. A., Phillips, J., Collier, A., Harlum, J., et al. (2012). Making decisions about delirium: A qualitative comparison of decision making between nurses working in palliative care, aged care, aged care psychiatry, and oncology. *Palliative Medicine*, 26(7), 887–896. doi: 10.1177/0269216311419884
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders: DSM-4* (4th ed.). Arlington, VA: American Psychiatric Publishing.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders : DSM-5* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Bélanger, L., & Ducharme, F. (2012). Toward the development of a nursing practice for older persons with acute confusional state (ACS). *International Journal of Nursing Education and Scholarship*, 9(1), 1–13. doi: 10.1515/1548-923X.2454
- Bélanger, L., & Ducharme, F. (2015). Narrative-based educational nursing intervention for managing hospitalized older adults at risk for delirium: Field testing and qualitative evaluation. *Geriatric Nursing*, 36(1), 40–46. <https://www.ncbi.nlm.nih.gov/pubmed/25466395>. doi: 10.1016/j.gerinurse.2014.10.010
- Bhat, R. S., & Rockwood, K. (2016). The role of diagnosis in delirium. *International Psychogeriatrics*, 28(10), 1579–1586. doi: 10.1017/S1041610216001095
- Choi, S.-H., Lee, H., Chung, T.-S., Park, K.-M., Jung, Y.-C., Kim, S. I., et al. (2012). Neural network functional connectivity during and after an episode of delirium. *American Journal of Psychiatry*, 169(5), 498–507. doi: 10.1176/appi.ajp.2012.11060976
- Damasio, A. (1999). *The feeling of what happens: Body and emotion in the making of consciousness*. New York: Harcourt Brace.
- Descartes, R. (1644). *Principia philosophiae*. Amsterdam: Apud Danielem Elsevirium.
- Eeles, E., Burianova, H., Pandey, S., & Pinsky, D. (2017). Consciousness, functional networks and delirium screening. *Current Aging Science*, 10(2), 122–128. doi: 10.2174/1874609809666161004142027
- Eeles, E., Davis, D., & Bhat, R. (2017). Delirium. In H. M. Fillit, K. Rockwood, & J. Young (Eds.), *Brocklehurst's textbook of geriatric medicine and gerontology* (8th ed.) (pp. 426–432). New York: Elsevier.
- Eeles, E., England, R., Armstrong, A., Pinsky, D., Pandey, S., & Teodorczuk, A. (2018). Understanding our patients better will lead to better recognition of delirium: An opinion piece. *Australasian Journal on Ageing*, 37(4), 241–242. doi: 10.1111/ajag.12585
- Eeles, E., Teodorczuk, A., & Mitleton-Kelly, E. (2018). Reconceptualizing delirium as a disorder of complex system failure. *Medical Hypotheses*, 118, 121–126. doi: 10.1016/j.mehy.2018.06.031
- Eeles, E., White, S., & Bayer, T. (2009). Inability to complete cognitive assessment is a marker of adverse risk. *Age and Ageing*, 38(5), 633–634. doi: 10.1093/ageing/afp115
- Francis, R., (2013). The Mid Staffordshire NHS Foundation Trust public inquiry. Retrieved 2 April. 2019 from <http://www.midstaffspublicinquiry.com/report>
- Haggstrom, L., Welschinger, R., & Caplan, G. A. (2017). Functional neuroimaging offers insights into delirium pathophysiology: A systematic review. *Australasian Journal on Ageing*, 36(3), 186–192. doi: 10.1111/ajag.12417
- Haslam, N., & Loughnan, S. (2014). Dehumanization and inhumanization. *Annual Review of Psychology*, 65, 399–423. doi: 10.1146/annurev-psych-010213-115045
- Held, V. (2006). *The ethics of care personal, political, and global*. Oxford, New York: Oxford University Press.
- Holttä, E. H., Laurila, J. V., Laakkonen, M. L., Strandberg, T. E., Tilvis, R. S., & Pitkälä, K. H. (2014). Precipitating factors of delirium: Stress response to multiple triggers among patients with and without dementia. *Experimental Gerontology*, 59, 42–46. doi: 10.1016/j.exger.2014.04.014
- Inouye, S. K., Schlesinger, M. J., & Lydon, T. J. (1999). Delirium: A symptom of how hospital care is failing older persons and a window to improve quality of hospital care. *American Journal of Medicine*, 106(5), 565–573.
- Inouye, S. K., van Dyck, C. H., Alessi, C. A., Balkin, S., Siegel, A. P., & Horwitz, R. I. (1990). Clarifying confusion: The confusion assessment method. A new method for detection of delirium. *Annals of Internal Medicine*, 113(12), 941–948.
- Inouye, S. K., Westendorp, R. G. J., & Saczynski, J. S. (2014). Delirium in elderly people. *The Lancet*, 383(9920), 911–922. doi: 10.1016/S0140-6736(13)60688-1



- Johnston, A., & Malabou, C. (2013). *Self and emotional life: Philosophy, psychoanalysis, and neuroscience*. New York: Columbia University Press.
- Kjorven, M., Rush, K., & Hole, R. (2011). Discursive exploration of the practices that shape and discipline nurses' responses to postoperative delirium. *Nursing Inquiry*, 18(4), 325–335. doi: 10.1111/j.1440-1800.2011.00534.x
- Kitwood, T. (1993). Person and process in dementia. *International Journal of Geriatric Psychiatry*, 8(7), 541–545. https://doi.org/10.1002/gps.930080702
- Kristjánsson, K. (2010). *The self and its emotions*. New York: Cambridge University Press.
- Kucyi, A. (2018). Just a thought: How mind-wandering is represented in dynamic brain connectivity. *NeuroImage*, 180, 505–514. doi: 10.1016/j.neuroimage.2017.07.001
- Mackenzie, C. (2007). Bare personhood? Velleman on selfhood. *Philosophical Explorations*, 10(3), 263–281. https://doi.org/10.1080/13869790701535287
- Maldonado, J. R. (2013). Neuropathogenesis of delirium: Review of current etiologic theories and common pathways. *American Journal of Geriatric Psychiatry*, 21(12), 1190–1222. doi: 10.1016/j.jagp.2013.09.005
- Martinsen, E. (2011). Harm in the absence of care: Towards a medical ethics that cares. *Nursing Ethics*, 18(2), 174–183. doi: 10.1177/0969733010392304
- Mitchell, G., & Agnelli, J. (2015). Person-centred care for people with dementia: Kitwood reconsidered. *Nursing Standard*, 30(7), 46–50. doi: 10.7748/ns.30.7.46.s47
- Neville, S. (2006). Delirium and older people: Repositioning nursing care. *International Journal of Older People Nursing*, 1(2), 113–120. doi: 10.1111/j.1748-3743.2006.00019.x
- Neville, S. (2008). Older people with delirium: Worthless and childlike. *International Journal of Nursing Practice*, 14(6), 463–469. doi: 10.1111/j.1440-172X.2008.00721.x
- Pasteur, L. (1880). On the extension of the germ theory to the etiology of certain common diseases. *Comptes rendus, de l'Academie des Sciences XC*, 1033–1044.
- Ravven, H. M. (2003). Spinoza's anticipation of contemporary affective neuroscience. *Consciousness and Emotion*, 4(2), 257–290. http://dx.doi.org/10.1075/ce.4.2.07mor
- Teale, E., & Young, J. (2015). Multicomponent delirium prevention: Not as effective as NICE suggest? *Age and Ageing*, 44(6), 915–917. doi: 10.1093/ageing/afv120
- Teodorczuk, A., Harrison, L., & Lavery, A. (2011). Patient delirium experience. Retrieved 2 April 2019 from http://www.europeandeliriumassociation.com/patient-video.html
- Teodorczuk, A., Mukaetova-Ladinska, E., Corbett, S., & Welfare, M. (2013). Reconceptualizing models of delirium education: Findings of a Grounded Theory study. *International Psychogeriatrics*, 25(4), 645–655. doi: 10.1017/S1041610212002074
- Teodorczuk, A., Mukaetova-Ladinska, E., Corbett, S., & Welfare, M. (2014). Learning about the patient: An innovative interprofessional dementia and delirium education programme. *Clinical Teacher*, 11(7), 497–502. doi: 10.1111/tct.12203
- Teodorczuk, A., Mukaetova-Ladinska, E., Corbett, S., & Welfare, M. (2015). Deconstructing dementia and delirium hospital practice: Using cultural historical activity theory to inform education approaches. *Advances in Health Sciences Education Theory and Practice*, 20(3), 745–764. doi: 10.1007/s10459-014-9562-0.
- Vukov, J. (2017). Personhood and natural kinds: Why cognitive status need not affect moral status. *Journal of Medicine and Philosophy*, 42(3), 261–277. doi: 10.1093/jmp/jhx005
- Yevchak, A., Steis, M., Diehl, T., Nikki, N., Kolanowski, A., & Fick, D. (2012). Managing delirium in the acute care setting: A pilot focus group study. *International Journal of Older People Nursing*, 7(2), 152–162. doi: 10.1111/j.1748-3743.2012.00324.x
- Zeman, A. (2001). Consciousness. *Brain*, 124(7), 1263–1289. https://doi.org/10.1093/brain/124.7.1263
- Zubin, J., & Spring, B. (1977). Vulnerability: A new view of schizophrenia. *Journal of Abnormal Psychology*, 86(2), 103–126. http://dx.doi.org/10.1037/0021-843X.86.2.103