

# THE USE OF THE TERM VULNERABILITY IN ACUTE CARE: WHY DOES IT DIFFER AND WHAT DOES IT MEAN?

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## ABSTRACT

### *Objective:*

Throughout health care literature, vulnerability is widely accepted as a potential issue for all patients yet the consensus on the meaning of and practical strategies to reduce or manage these 'harmful agents' in the clinical context are rarely offered. Three main themes emerge from the related literature which can be further refined into general terms of; social vulnerability - a person's basic statistical data in relation to their potential for illness; psychological vulnerability - the actual or potential harm to the identity of self and/or other emotional effects such as anxiety or stress caused by the ailment or treatment; and physical vulnerability - which refers to the actual physiological state where an individual is susceptible to further morbidity or mortality.

### *Setting:*

Acute care facilities.

### *Primary argument:*

Although there is acknowledgment within the literature that individuals will experience some form of vulnerability when hospitalised, the complexity of what defines vulnerability for individuals causes further problems for patients and health professionals alike.

### *Conclusions:*

This paper attempts to define vulnerability within the context of Western health care systems and raises the following issues: all states of vulnerability are accurate and appropriate in the context of the study or incidence alluded to, but further discussion and research is required to achieve a consensus to when, how, why and who is vulnerable. It is this recognition of the potentially differing classifications of vulnerability and the particular contexts that can be

used that may assist nurses and other health care professionals with, not only problems associated with a patient's hospitalisation, but in the implementation of appropriate strategies to individual patient's cases.

## INTRODUCTION

The increasing technical complexity of nursing care has the potential to exacerbate the Cartesian separation of the body from the individual. This in turn can lead health professionals to treat the altered health state as an entity in itself (Knaus et al 1991) rather than the person as a whole. As health care emphases are directed toward measurable medical and scientific levels of the patient's body, health professionals will consequently fail to comprehend how their patients who are faced with these changes adapt and reconcile non measurable or non fixable issues that affect their health status.

Patients admitted with acute presentations may not only become affected at a physical and psychological level but also a social level. These aspects associated with the preadmission, inter-admission or post admission individual have been described as patient vulnerability.

## AIM

Within past and current health care literature, vulnerability is widely accepted as a potential complicating agent for all patients (Shi 2001; Malone 2000; Irurita 1999; Rogers 1997; Broyles 1999). Vulnerability (patient) has been defined as being susceptible to harmful agents (Malone 2000). This can be further defined in terms of actual or potentially vulnerability. Actual or potentially vulnerability can be defined as those known circumstances which will cause an individual to be susceptible. Whereas potential vulnerability are those circumstance that may cause an individual to be susceptible.

Although many have written about patient vulnerability few authors have addressed the varying meanings of vulnerability nor identified practical strategies to reduce or manage its associated 'harmful agents' within the clinical context. As a result there is no general consensus as to what vulnerability actually means for an individual. Despite this general vagueness as to exactly what vulnerability entails, the argument presented in this paper is that there are three main themes of vulnerability that emerge from the related literature. They are: social vulnerability, psychological vulnerability and physical vulnerability. Social vulnerability (be it demographic, economic or cultural) refers to a person's basic statistical data in relation to their potential for illness (Shi 2001; Steptoe and Marmot 2003; Rogers 1997; Flaskerud and Winslow 1998; Aday 1994). Psychological vulnerability relates to the actual or potential harm to the identity of self and/or other emotional effects such as anxiety or stress caused by the ailment or treatment (Malone 2000; Williams 1998; Irurita 1996; Zigmond 1983). Physical vulnerability which can either refer to the actual physiological state where an individual is susceptible to further morbidity or mortality (Turkel 2001; Malone 2000; Williams 1998; Irurita 1996) or can also overlap with social and psychological sense of vulnerabilities.

Although there is acknowledgment within the literature that individuals will experience some form of vulnerability when hospitalised, the complexity of this experience for each individual will vary and may be misinterpreted causing further problems for the patient. As there is little guidance for health professionals to identify key risk factors to better support patients through these responses, a consequence of this is that health professionals require further assistance to facilitate an appropriate strategy for preventative, ongoing or discharge care to these complex situations.

### Personal Capacity

One of the factors that can affect a patient's ability to prevent vulnerability is personal capacity. The definition of capacity refers to the ability to produce and perform (Moore 1997). Personal capacity best describes the perceived innate ability of all individuals within society to grow, produce, perform, and achieve autonomy and their maximum potential. Maximum potential can infer an individual's academic, physical, mental ability as well as their potential to obtain and sustain their role within their family, occupation or within society in general. As a result, an increase in personal capacity would potentially see a decrease in vulnerability. Actions taken to build personal capacity can decrease a patient's feelings of actual physical, psychological and social vulnerability.

The term 'personal capacity' would predominantly be used when referring to social vulnerability due to its obvious social overtones, such as socioeconomic status or level of educational attainment. The relationship between the higher level obtained of those examples would lead

to an increased personal capacity of the individual through an improved ability to make not only informed choices but be able to access appropriate care in a timely manner. A lower level of both examples could potentially lead to avoiding or further complicating health related conditions.

Personal capacity could also be used when discussing psychological or physical vulnerability. Health professionals, in particular nurses, can decrease psychological or physical vulnerability and increase personal capacity through strategies such as advocacy (to uphold the patients best interests), presencing (being there or being with the patient), education or providing individual safety measures such as bed rails or drawn curtains within the acute hospital (Snyder, Brandt, and Tseng 2000). These are measures again that nurses may subconsciously perform to decrease patient vulnerability.

### Social vulnerability: Indicators/predictors

Social vulnerability is the most prominent form of vulnerability found in healthcare literature, as it is the easiest to define and theorise. It is best described as the universal notion of risk, implying that everyone is potentially vulnerable to developing health problems (Aday 1994). Statistical data or individual variables are used to predict a person's capacity to resist a vulnerable state which may in turn increase or decrease the incidence of ill health (Steptoe and Marmot 2003). This data includes demographic, economic or cultural variables (such as sex, age, marital status, earnings, educational attainment, religion and racial heritage). In relation to an individual's personal capacity this can be diminished or increased due to many variables relative to an individual's circumstances. These variables define (ethnicity or culture), enable or disable (occupation, educational attainment or lack thereof); be actual (gender); or inevitable (age) to an individual (Shi 2001; Steptoe and Marmot 2003; Flaskerud and Winslow 1998; Rogers 1997; Aday 1994; Copp 1986).

Models of vulnerability have been developed using the correlation between these various variables. Theories developed from this data on how, why, when and who become vulnerable are described in a prescriptive equation for example ' $V1+V2-V3= X$  (amount of vulnerability)'. Two prominent examples of these equations are Copp's Continuum of Vulnerability (Copp 1986) and Shi's view of vulnerability as a multidimensional construct (Shi 2001). Both refer to vulnerability as a predisposition to becoming ill and both identify not entirely dissimilar key variables associated to the individual's social data. These are then weighted into different categories depending on how certain circumstances are viewed in relation to prevalence of illness.

For example: statistical variables that may increase vulnerability and decrease capacity would be age, gender, and income or minority status. The very young or the

elderly are inherently vulnerable due to their physical and mental immaturity (*development*) or maturity (*decay*). Both are particularly susceptible to physical and psychological harm due to their inability to act appropriately on their own behalf (Flaskerud 1998; Irurita 1999; Rogers 1997). Usually those identified as having multiple risk factors (such as the impoverished elderly person who is from a non-English speaking background) could be seen as being from a high-risk or doubly vulnerable population (Moore 1999). These individuals have more than one statistically proven variable which may affect their health (Moore 1999; Rogers 1997; Irurita 1996).

Various gender related statistical circumstances like the incidence of stress, domestic violence (Rogers 1997) can also effect how, when, why and who become socially vulnerable. Examples of these are also specific disease processes such as breast cancer for women or stress, antisocial behavior or specific disease processes such as prostate cancer for men (Rogers 1997).

Other vulnerable groups that can be identified through this data are those from minority groups (Indigenous, homosexual, non-English speaking background migrants etc) as they statistically have a higher incidence of disease and trauma than the general population (Vezeau et al. 1998; Aday 1994). These variables are weighted in terms of the individual's vulnerability and can be compounding or negating to the individual in terms of vulnerability/capacity depending on which variables are appropriate to the individual and thus placing the individual somewhere within the particular model addressed (Shi 2001; Copp 1986).

Examples of variables that decrease vulnerability and increase personal capacity are those such as wealth, education or occupation. These variables are seen to increase personal capacity to prevent vulnerability because of the perceived notion that these individuals would have better knowledge of, and access to, health care through virtue of their circumstance (Flaskerud and Winslow 1998). This recognition of certain predisposing variables makes social vulnerability predominantly a pre-emptive notion of actual or potential effects, which may or may not impede an individual's health status (and thus capacity to prevent vulnerability). It is particularly relevant when addressing issues related to public health or understanding an individual's personal background in context of their actual or potential for illness. These factors may help target community health care initiatives such as specific strategies for care and education as well as other tangible resources within hospitals or clinics.

### **Physical vulnerability: Indicator/predictors**

Physical vulnerability refers to a person's impaired resistance to further harm caused by a weakened state of disease, ailments or trauma. This actual or potential physical susceptibility could lead to further morbidity or even mortality if unrecognised. Physical vulnerability

(be it actual or potential) is the underpinning for all the theories/factors of what it is to be vulnerable within the acute health care system. The very nature of being ill requires the individual to relinquish responsibility for themselves to another, in order to receive the appropriate treatment. Financial or intellectual (IQ or education) ability can limit peoples' ability to care for themselves as well and their families. In this weakened state, it is well documented that other opportunistic diseases can affect and infect the individual further decreasing their capacity to recover (Rogers 1997). Physical vulnerability could be seen as the manifestation of social and psychological vulnerability. Social vulnerability may be a predictor for illness (Ferrer and Palmer 2004; Steptoe and Marmot 2003) or the exacerbation or poor prognosis of physical illness may result in a psychological condition such as depression (Kaye et al 2000).

An example of how this could be quantified is through the use of the Acute Physiology and Chronic Health Evaluation (APACHE III) score (Knaus et al 1991). The APACHE III risk estimate equations use the admission diagnosis, the source of admission, and the APACHE III score weighted according to coefficients that are not in the public domain. In essence the APACHE score measures the severity of illness score calculated from the patient's age, the presence of co-morbid conditions, and the physiologic and laboratory investigations in the first 24 hours after admission. This is used to accurately predict hospital mortality risk or physical vulnerability for critically ill hospitalised adults, especially those in intensive care.

Patients during hospitalisation are potentially at risk of physical vulnerability and thus a decreased personal capacity which will further complicate their present co-morbidities with risks of opportunistic infections (Canale 2005). Prevention of further complications is a form of patient advocacy and should be paramount when treating any patient. In this vulnerable state the individual is already susceptible to harm and thus the potential for further damage also increases as the body tries to cope with its dis-integrity.

### **Psychological vulnerability: Indicators/predictors**

Psychological vulnerability is probably the hardest form of vulnerability to predict in terms of who will be susceptible and how its effects will be felt. Hospitalisation can cause psychological effects, such as loss of role or identity or a perceived lack of autonomy (Lockhart, Ray and Berard 2001; Dennis 1990). Individuals develop their own self construction through social practices and adopt traits of particular social groups they associate with (be it social networks, cultural practices or the family unit) and as such their own identity can never be wholly secure from the external social world we participate in (Dagnan, Trower, and Gilbert 2002).

If individuals are removed from their environment to one that is alien, such as a hospital where these individuals could perceive to be subordinated and controlled by others, then self construction fails and feelings of vulnerability prevail (Irurita 1996). As this deconstruction of a person's known self to one that is unfamiliar, doubts and uncertainties arise and can damage a person's capacity to cope with foreign situations. This form of vulnerability is most prevalent in literature addressing the psychological effects of hospitalisation on an individual (Mayou and Farmer 2002).

All types of health care avert some form of control over those entrusted to their care as a means of caring for individuals with altered health states. This control can take a physical form through such methods as manual restraint in extreme circumstances but is mostly psychological control which can be felt through regimented hospital routines and protocols. Psychological control creates a potentially negative relationship between the representatives of the health care provider (for example nurses, doctors, physiotherapists) and the individual (Dagnan, Trower and Gilbert 2002). The individual can feel dominated and subordinated which can lead to alienation, marginalisation, internalised oppression (Canales 2000) and thus result in feelings of harm (and consequently vulnerability).

Means of domination include the removal of personal care. Under normal circumstances a healthy adult would feed, dress, and clean themselves at their own pace and time, but when placed into an abnormal circumstance such as hospitalisation for trauma, disease or treatment, these processes become (to some extent) regulated for them. As a means of care, the removal of choice of the individual ensures the processes of the system run smoothly but this lack of choice also de-individualises the person to a bed number or disease classification. An example of this would be to refer to a person as: 'the patient in bed 12 with heart failure will be going for the x-ray at 12pm'. This common scenario would most likely take place on a day to day basis with the patient having little choice and no name. Not only does this lack of recognition of the individual and their uniqueness cause vulnerability by the removal of the autonomy and individuality of the patient, but also they are in a situation in which they are reliant on the help of others (Lawler 1991).

Loss of self can be felt by all who are using the health care system due to the reliance on help from others and the potential for harm if this help is refused or withheld. This is particularly evident when the health care system they are being treated in is set up to cater for a culture not their own. Facilities associated with health care system within hospitals, community health care centres, general practitioners etc are commonly geared to providing care for the most dominate culture in that society (Hall 1999). As a result, personal cultural needs of minority groups are usually not taken into account for the sake of the system and the logistical ease of process. As social practices

differ from culture to culture, misunderstandings can and do occur despite the best intentions of health care professionals.

Examples of cultural differences could be as simple as dietary requirements (such as Lent in the Christian faith or the Halal preparation of foods in the Islamic faith), to complex cultural matters such as strict prayer rituals. These cultural factors relate to how a person may locate themselves within a society or group and without this 'anchor' to their faith or culture, these individuals may feel threatened or vulnerable. Given that during hospitalisation these individuals would already feel vulnerable due to illness, the implications are that further misunderstanding and emotional distress may occur.

## Strategies to reduce vulnerability

### *Social vulnerability*

The implications posed by social vulnerability may never be fully rectified due to many confounders some of which are unmodifiable. Examples of these unmodifiable confounders are, sex, ethnicity and age (Rogers 1997). These are, as mentioned previously, actual and inevitable and for the most part extremely difficult to alter. However identification of these specific confounders can be of use when tailoring care for patients. On a subconscious level all nurses adjust ongoing plans of care or discharge to accommodate these factors. An example of this would be age. It would be appropriate to discharge a previously fit and healthy married 26 year old male home within days of undergoing an appendectomy as his personal capacity is relatively high compared to a patient with similar surgery but who is 86 years old. The latter patient would most likely have a complicated past history or progressive debility (due to the fact of age) that would require not only a longer stay in hospital but further investigation into his personal circumstances as they also may compound the issue (such as does his wife require care etc).

Other identifiable contributors to social vulnerability are the availability of education and employment but knowledge and money cannot guarantee better circumstances for all. The only effective strategy to assist those identified as the socially vulnerable is continuing individual education. Education can assist the individual in gaining control of their life allowing them to make informed decisions in a variety of ways (Kuokanen 2003). Education, as a form of personal capacity building, can not only allow the individual to obtain higher paid employment but can also allow them ready access to health care as they would have the ability to afford it, as well as empowering them with information of choice of treatment and hopefully a better standard of living (Ferrer, Hambidge and Maly 2005; O'Connell and Warelou 2001). One such example would be if education were directed to their current or potential health condition this information and its synthesis could potentially lessen or prevent any associated complications (Nicklin 2002).

### *Physical vulnerability*

Obvious strategies to reduce physical vulnerability include those ingrained into the professionalism of nurses and other health care workers such as risk management in all facets of the patient's health care trajectory from admission to discharge. Some effective mechanisms to reduce physical vulnerability that are implemented on a routine basis are universal precautions and infection control. These have historically been found to decrease further complications in patients being treated by health professionals (Preston 2005; Al-Damouk M 2004).

Another strategy is critical incident management. This usually involves health professionals discussing errors in treatment or despite best intentions of the health professionals an undesired outcome. An example of a critical incident management would be a drug error. It has been found that these open and frank discussions of such critical incidents are beneficial and actually decrease such errors from happening (Copping 2005; Silverman et al 2003; Rapala and Kerfoot 2005; Kenzi-Sampson 2005; Canale 2005). Proactive nursing and strategic planning can benefit current patients and has the potential to reduce vulnerability in future patients.

Finally physical vulnerability can be reduced through education of, not only nurses and other health professionals, but the individuals suffering from these conditions as it provides the individuals with an understanding of how to approach the situation (Wagner 2000). When nurses or another health care professionals are educated in or proactive in development of their own knowledge base on any particular condition, treatment or care related matter outcomes are invariably better for the patient outcomes (Ireson and Grier 1998; Kitson 1997).

Furthermore, when health professionals communicate and educate their clients, health outcomes of their patients are improved (Seidel 2004). Clear and precise information put to the patient in terms they will understand prepares them for their condition.

### *Psychological vulnerability*

Although hard to predict, psychological vulnerability may be avoided through a number of nurse-initiated courses of action. As nurses are the constant caregivers for acute medical facilities providing 24 hours a day seven days a week care, they are predominantly the ones who develop a therapeutic relationship with clients through the necessity of being understanding and considerate to the individual's needs (Klein 2005; Fradd 2005; Sweeney and Tapper 2005; Habermas, Bedecarre and Buffum 2005; Falk-Rafael 2001).

The physical presence of a nurse or health care worker during a time of insecurity for an individual can be seen as therapeutic also referred to as 'presencing' (Irurita 1999). Presencing can be a powerful tool in alleviating feelings of vulnerability as it is not only the act of being in the vicinity of the patient but of understanding the patient and potentially preempting any possible physical

or psychological deterioration in their state (Snyder, Brandt and Tseng 2000; Mitiguy 2000; Daniel 1998; Mallick 1997).

Advocacy is another powerful tool that a nurse may use to assist a patient with psychological vulnerability. Nurses are trusted to make assessments of patient care be it physical or psychologically that would best serve the patients interests (Bennett 1999; Mallik 1998; Falk-Rafael 2001). To best understand what these interests are, nurses or health practitioners need to have frank and open discussions with the patient or relatives to help facilitate appropriate care for the individual (Unknown 2003). As with most open Western societies, people from a wide variety of cultures and nationalities live within relativity close proximity to one another. As nurses from such societies one possible intervention is to engage with patients from multiple groups on multiple levels and also turn to the conditions that control influence and produce health or illness in human beings (Canales 2000). This would mean active involvement in influential groups such as representative bodies to government organisations or programs.

## CONCLUSION

Vulnerability has been defined within the context of Western health care system and as such raises the following issues. Unfortunately this review of current literature indicates no counter-arguments to those that have been presented in relation to the various forms of vulnerability. All states of vulnerability are accurate and appropriate in the context of the study or incidence alluded to but further discussion and research is required to achieve a consensus to when, how, why and who is vulnerable. One question is: should vulnerability be only classified as a purely social, psychological or physical state or be defined in degrees of vulnerability depending on numerous factors? It is this recognition of the potentially differing classifications of vulnerability and the particular contexts that can be used that may assist nurses and other health care professionals with not only problems associated with a patient's hospitalisation but in the implementation of appropriate strategies to enhance an individual patient's care.

These factors may be complex and difficult to prevent or adjust, such as social status or cultural custom. Or they can be as simple to prevent or adjust, such as education of the patient on the risk and benefits of treatment. But all are individual to the patient be it their pre-disposing and potentially preventable factors, treatment, care and actual condition related issues and how these factors relate to their altered health state or 'post-disposing' factors associated to this weakened state. For any admission to any acute hospital environment there are factors which have, may or will affect that person, before, during and after their stay.

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