Families Coping With Disability Due to Brain Injury in Oman: Attribution to Belief in Spirit Infestation and Ensorcellment

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Abstract
Little is known about primary caregivers’ perceptions of a relative who has sustained abruptly personality changes following traumatic brain injury (TBI) in non-Western populations. To help appreciate the diversity of perceptions of disability outside the biomedical setting, the present discourse highlights how primary caregivers construct sequelae of TBI in Oman. A qualitative case study with an ethnographic approach was conducted using semistructured interviews. Six caregivers from two families of patients with TBI were interviewed to garner description of lay beliefs within a rural community in Oman related to the experience of family carers with a relative suffering from a brain injury. The caregivers interpreted their relatives’ predicament through the local idiom of distress involving belief in spirit infestation and ensorcellment. The present qualitative study supports the view that when a family member incurs neurobehavioral impairments, the coping processes of the caregivers are heavily influenced by cultural concepts of health and illness. Such attributions are discussed in terms of specific sociocultural forces within Omani society.

Keywords
cross-cultural, Oman, brain injured, family coping, infestation, ensorcellment

Introduction
Emerging evidence suggests that acquired brain injury supplants infectious diseases and reproductive, maternal, and child health as a leading cause of global mortality, and accounts for a considerable degree of disability and economic loss (Al-Adawi et al., 2004; Hyder, Wunderlich, Puvanachandra, Gururaj, & Kobusingye, 2007; Lopez, Mathers, Ezzati, Jamison, & Murray, 2006). In some less developed countries (LDCs), on one hand, care for people with traumatic brain injury (TBI) is either nonexistent or still at a rudimentary stage of development (Al-Naamani & Al-Adawi, 2007). On the other hand, with the advent of effective emergency care and acute medical care, deaths from TBI have decreased, but TBI survivors are left with irreversible, intransigent, and debilitating loss of physical, cognitive, and psychosocial functioning (Al-Adawi et al., 2007). In LDCs, as the burden of care is limited to the family circle, the consequences of the injury not only affect the victim but also that person’s entire social network. Similar trends appear to exist even in developed Western countries (Simpson, Mohr, & Redman, 2000) where it has been demonstrated that the role of the family has a significant impact on the rehabilitative process and its functional prognosis (Kreutzer et al., 2009; Saltapidas & Ponsford, 2008, Schönberger, Ponsford, Olver, & Ponsford, 2010). There is evidence to suggest that social support is critically important in determining the level of adjustment of the patient/family to the situation (Ergh, Hanks, Rapport, & Coleman, 2003; Gan, Gargaro, Brandys, Gerber, & Bosch, 2010; Janda et al., 2008; Ponsford & Schönberger, 2010). Various authors have outlined different and diverse caregiver coping processes in Western countries for patients with neurobehavioral impairments. Clinically, significant levels of psychological distress that mimic symptoms of depression and anxiety as well as a preoccupation with prolonged and unremitting denial, hysteria, and anger are common occurrences (Al-Adawi et al., 2005; Anderson et al., 2009; Machamer, Temkin, & Dikmen, 2002; Ponsford, Olver, Ponsford, & Nelms, 2003). This has lead to the development of support services to alleviate the burden of care on relatives (Ponsford et al., 2003).
There is a dearth of studies examining how families outside Euro-American populations construct the sequelae of neurobehavioral impairment. In collectivistic societies, such as those often found in many LDCs, cultural patterning means that difficulties and illnesses are viewed as a challenge to the extended family and the community. One of the central tenets of a collectivistic society is to attempt to reconstruct the patient’s identity by calling the whole community to witness and share the misfortune of the distressed. This process helps to increase the patient’s self-value and reinforce the patient’s relationship with the community (Al-Adawi, 1993). The importance of the family in the care of relatives has been shown to overcome poor prognostic indicators when the community responds to the initial episode of illness by sympathetic acceptance, benevolently protective attention, and assistance in a culturally prescribed way. According to Kleinman (1988), cultures, in making sense of illness, have clusters of explanatory models, the lenses through which cultures perceive and understand illness. Such perceptions have not, to our knowledge, been reported in the context of acquired brain injury in traditional societies around the world. This contrasts with the vast literature that has emerged on the perceptions of psychiatric illness (Lewis-Fernandez & Kleinman, 1995).

Anthropological studies have suggested that a person’s behavior or personality can be controlled or possessed by spirit in many traditional communities (Al-Adawi, Martin, Al-Salmi, & Ghassani, 2001; Cohen & Barrett, 2008). Spirits are invisible forces believed to inhabit the earth and influence mankind by appearing in the form of humans or animals. In such communities, supernatural forces such as Jinn, contemptuous envy (Hassad), the envy-related “eye” (Ain), and sorcery (Sihr) appear to be central to the idioms of distress (Al-Sinawi, Al-Adawi, & Al-Guenedi, 2008) or “explanatory models” (Kleinman, 1988). It has yet to be reported whether such an idiom of distress is also found among families of patients with acquired brain injury marked with neurobehavioral impairment. Exploring families’ perceptions of their relatives’ distress could help to shed light on what is universal versus what is cultural in coping with such a misfortune. It could also lay the foundation for future qualitative and quantitative cultural studies on cultural variations in the understanding of coping and adaptation mechanisms of caregivers of injured relatives. Understanding the breadth and depth of how primary caregivers cope with the neurological impairment of their relatives would, in addition, shed light on how disability is conceptualized.

To our knowledge, there is no empirical research on the response of caregivers from Arab/Islamic countries to a family member who incurs neurological and medical complications resulting in intransigent cognitive, emotional, and behavioral impairments. The aim of this study is to describe the reactions and adaptation of caregivers in Oman, a country in which the family is still expected to play an important role in social organization using in-depth interviews with three carers of victim or survivor of brain injury.

Oman lies on the eastern side of the Arabian Peninsula, and with a population of nearly 3 million, there were 25 deaths per 100,000 inhabitants due to accidents and injuries (mostly from road traffic accidents) compared with the world rate of 19 per 100,000 (Al-Naamani & Al-Adawi, 2007). In addition to mortality, each year 0.3% to 0.4% of the population in Oman is estimated to incur disability that is precipitated by unintentional injuries and road traffic accidents (Al-Naamani & Al-Adawi, 2007). Victims often seek acute medical management, but thereafter only limited rehabilitation services are available to survivors of brain injury.

**Method and Context of the Study**

To capture the experiences of the caregivers of people with disability due to brain Injury in Oman, a qualitative approach was employed to obtain a variety of subjective and spontaneous accounts of caregivers’ conceptions of the predicament of their brain-injured relative. The families were periodically interviewed to see how their perceptions of their relative changed over time.

The present qualitative study constitutes an extension of a previous study (Al-Adawi et al., 2007) and follows research methodology described elsewhere (Prostanter, 2009). In brief, a qualitative case study approach using in-depth interviews with carers was employed. This has the net benefit of providing an opportunity to study the phenomenon of interest to gain insight into the beliefs and attributions of caregivers of survivors of brain injury. The value in stories about particular people in a specific context is especially useful in Oman where there is a limited research on such discourse. Such undertaking may shed light on intricate mechanism of certain behaviors and this, in turn, could illuminate on the overall phenomenon that is specific to certain cultural group (Stake, 1995). Such an approach, at face value, being idiographic focus, may appear to impinge required rigorous research methodology but nevertheless lay groundwork quantitative study.

For the present contest, the employed depth interviews followed a discussion-type approach where the informants were asked to respond to a variety of open-ended questions related to themes drawn from the literature (Dejmama et al., 2010; Ekblad & Bäärnhielm, 2002; Kleinman, 2004). The common denominators of such themes are cultural attributions to abrupt personality that entail irrevocable loss of “persona” of their loved one. Three male family members were interviewed from each family: the father and two brothers. It was taken into consideration that information gathering had to be open ended; this is often viewed as an integral part of qualitative studies (Barbour & Kitzinger, 1999). The main areas covered were (a) conceptualization (What is your relative’s predicament called?), (b) cause (What do you think caused his problem?), (c) impact (How does his illness affect him and the family?), (d) help-seeking (What kind of treatment did he obtain and why?), and (e) desired treatment
outcome (What is the most important outcome you hope the treatment will provide?).

The researcher took detailed notes during the interview, noting long pauses and nonverbal communications when these were thought to be important. The notes were written up immediately after the interview. During subsequent interviews, the areas of inquiry were revisited and new ideas noted. Analysis was done concurrently with data collection and iteratively directed data collection on follow-up interviews as described elsewhere (Watkins, 2010). The data were analyzed using the “interpretive phenomenological approach” described by Smith, Harre, and Van Langenhove (2001) and Larkin, Watts, and Clifton (2006). The transcripts were read several times. Interesting and recurring ideas were marked in addition to striking words and sentences.

For this study, there were two sessions of peer review conducted during the stage of analysis. Each peer review session included both the authors. The peer review meetings supported the results of the analysis, and there was a great level of agreement between the researchers. The three main themes that emerged from the interviews and will be entertained in the ensuing paragraphs are labeled as (a) causal attributions and cultural beliefs, (b) attributions and coping (c) coping and the health care services.

The interviews were conducted by one of the authors (Samir Al-Adawi [SA]). Each informant was interviewed 5 times over a period of 1 year, and all interviews took place at the informants’ home. Before starting the interviews, the aims, procedures, and duration of the research were explained to the interviewees. They were assured that there was no right or wrong answer rather that their ideas, views, and experiences were important contributions to the study. Ethical permission for the study was granted by local Institutional Review Board.

Results

The interview data are presented as narrative stories of the patients, from the perspectives of the caregivers, aiming to highlight the cultural beliefs and attributions of caregivers. This will shed light on the way caregivers view their family member’s illness. For brevity, and as the interviews were very long, the case studies are summarized keeping in mind the temporal element of the story.

Case Study 1: The Possessed

BB is a 36-year-old Omani man who was rendered unconscious after falling from a date tree in a rural region of Oman. The family rushed the survivor to the nearest primary health clinic where he regained consciousness on arrival. According to the family, physical examination at the time was unremarkable except for minor skin abrasions. He was discharged home without any further intervention.

Subsequently, BB complained of headaches and diffused pain, which was alleviated with simple analgesics. In addition, the family noted that BB’s personality had changed. According to them, BB had “lost himself.” He was described by the family, in biomedical parlance, as emotionally labile, erratic, and impulsive. The term that encapsulates his conduct is that equated with adolescence, murahaqa, meaning an unmarried person who has reached puberty and is characterized by high emotionality, impulsivity and a heightened preoccupation with sexual temptation (Al-Adawi, 2006). Concerned with BB’s behavior, the family sought medical attention. The physician recommended that the family seek a psychiatric opinion in the university hospital. This would have required them to travel to an urban area, which the primary caregivers were reluctant to do as they did not think that BB suffered from psychiatric illness, a condition either stigmatized or attributed to supernatural causes and in the latter case often considered the prerogative of traditional healers in the rural community. In the family circle, BB’s personality change was attributed to various causal agents, including supernatural forces such as Jinn.

The family consulted a traditional healer who “revealed” to the family that BB had been a “victim” of jealousy or the “evil eye.” The traditional healer’s “diagnosis” confirmed the family suspicion that it had been a magic spell rather than an unfortunate accident that had caused BB to fall and his personality to change. To the family, this seemed more reasonable because BB had been climbing trees all his life and had never fallen before. The fact that he was a successful farmer further raised the family’s suspicion. The traditional healer prescribed an amulet for BB to wear and a potion to be drunk at regular intervals created from water washed over selected Koranic verses hand written in charcoal on a wooden surface. Even after this “treatment,” BB’s erratic behavior continued. His conduct bewildered and distressed his wife who on several occasions contemplated leaving him and returning to her own family. The wife complained that he was not acting as responsible father any more. He was also noted to be disinhibited. With no apparent sign of recovery, BB was taken to another traditional healer. This healer also concluded that BB had been harmed by evil eyes because he was a successful man in the village and therefore likely to be the subject of jealousy. The healer treated him with various esoteric verses to ward off evil forces. The relatives, including the wife, thought this resulted in a temporary remission of his “abnormal” behavior.

After 2 months, the family consulted another traditional healer who was known for his “power” to tame the Jinn, or spirits, and conduct exorcisms. This shamanic healer attributed BB’s behavior to spirit possession by a Jinn. A ceremony was subsequently organized to exorcise the possessing spirit. The purpose of the ceremony was to coerce the “invading spirit” to reveal why it had chosen to possess BB. During the ceremony, the healer used his own spirit to
possess BB and then used his own spirit to lure the unknown spirit out of BB. The healer tried to ascertain the Jinn’s identity by first questioning BB in vulgar Arabic and then using a peculiar language known only to the Jinn. When this failed, the healer flogged BB, believing he was actually flogging the Jinn. The healer also tried to provoke the Jinn to emerge using pleasantries, promises, toughness, and threats. After these attempts failed, the healer attributed BB’s difficulties to other supernatural forces and magic. Despite the failure of the “treatment,” BB was said to have improved. Almost 1 year after the accident, the family no longer attributed BB’s behavior to Jinn. Rather, they believed that he had once been possessed, but he was slowly “clearing” it. The family accepted the idea that BB would remain a “changed” man. However, they strongly hoped that God would punish whoever had placed the spell on BB, and the family decided that BB’s presence was a test by God for them to remain strong in the face of adversity. When last seen, BB was still impulsive, but it seems that the family has learnt to accommodate his new sense of self.

Case Study 2: The “Mu ghayeb”

MM is 28-year-old and a father of six children with an unremarkable medical history until he sustained a TBI following a road traffic accident. He was living in extended family in a rural part of Oman. He never acquired formal education although he had cursory knowledge of Koran. He lost consciousness after the accident and was admitted to hospital. MM was left with intransigent impairments suggestive of a vegetative state. The family was told that MM would be likely to remain dependent on them for his basic care and might never regain his premorbid personality and competencies. As there is no rehabilitation of such cases in the country, the attending doctor advised the family to seek rehabilitation outside of Oman. Such services are only available in Western Europe and North America, and it was not financially viable for this particular family to undertake such an intervention.

Although the family of MM appears to have understood that a persistent vegetative state could follow a TBI, the family believed instead that the real MM had been “stolen,” and he became a Mu ghayeb, a phenomenon akin to zombification that has been reported from Haiti with minor differences. Although most villagers had heard of someone who had returned to his family after being stolen, no one had firsthand knowledge of such an existence. In contrast, zombies are often seen in the neighborhood in Haiti (Littlewood & Douyon, 1997). The family felt that a magician had placed a spell on MM, converting him into a person lacking free will, soul, or awareness such as a zombie. The family believed that the Mu ghayeb MM was living a shadowy existence, sleeping naked in a cave during the day, and rising at night to wander about the countryside, feeding on leaves, and doing whatever the magician ordered. The family claimed to have seen the Mu ghayeb MM as a wraith-like figure at night approaching the house in disguise as a stray dog. At other times, the family claimed to have felt him “intuitively present in the house.”

The family believed that the Mu ghayeb MM could be returned back to them in one of three ways. First, the magician might be discovered and killed or destroyed in some other way (which could include the magician’s natural death). When a magician dies, all the people he has enthralled are freed and will return to their families. Another way to free the enthralled is to find the zombied person wandering and overpower him by hitting him on the forehead with a stone. Again, this would automatically release him from his bewitchment. The final method is to seek a healer to counteract the magician’s spell.

The family invited a White magician healer to help free their “enthralled” loved one; however, the juju (charm) was unsuccessful. MM remained in a vegetative state, and several months later without any observable change in his functioning, MM passed away in his sleep. The death further reinforced the belief that he had been stolen, even after an elaborate burial ritual and the prescribed period of mourning.

Discussion

Despite the increased morbidity due to road traffic accidents and unintentional injuries globally (Peden, McGee, & Krug, 2002), very little has been documented on how primary caregivers of injured relatives cope with this disability. Brain injury imposes a large emotional and psychological burden on primary caregivers of injured relatives regardless of their sociocultural background (Cavallo & Saucedo, 1995). In Western populations, the family members who are responsible for their injured relative’s care tend to be in an “emotional paradox” when the life of a previously healthy individual is irrevocably altered (Tzidkiah, Sazbon, & Solzi, 1994). According to Niemeier and Burnett (2001), while the disabled may not even realize that anything has happened to him or her, the family may go through the burden and distress of “burying” the person they previously knew and trying to develop a relationship with a new and less affable stranger. To our knowledge, no study has reported how primary caregivers of the injured relative cope with neurobehavioral impairment in the Arab world.

Theme 1: Causal Attributions and Cultural Beliefs

As the above case studies suggest, traditional beliefs on causative factors of the injury are reached for and healing practices and rituals performed. The prevailing tendency among Omanis is to explain the change in their relative by the existence of sensate agents who have cast a spell on the victim rather than thinking that the TBI has transformed their loved one. Thus, the accident and its sequelae are ascribed to spirit infestation or ensorcelment (Al-Adawi, Burjorjee, & Al-Issa, 1997). These beliefs are consistent
with how distress is experienced in this culture. In traditional Omani society, illness, stress, and distress are attributed to natural factors, supernatural influences, or a combination of the two (Al-Adawi, 1993, Al-Busaidi, 2010). Although the accident sustained in these two cases might appear to be “naturally” caused, the family believed that the accident was the result of the active, vengeful intervention of anthropomorphic beings conjured up by a malicious and envious person. Someone was jealous of the alleged success of these two people, and thus, they became the victims of aggression and punishment. In Euro-American psychology, such an explanatory model is indicative of an “external locus of control.” Individuals with an external locus of control believe that events are determined by outside forces in contrast to the biomedical model where the emphasis is on the interplay between biology and socialization. Thus, caregivers in Oman attribute neurobehavioral impairment to external factors. In the present example from Oman, the external locus of control manifested as a belief in spirit infestation and ensorcellment. This is consistent with the view in Oman that misadventures are likely to be perceived as originating from external forces or due to person–society disjunctions. If such views were substantiated after further scrutiny, it could be concluded that the major socializing force, Islam, as practiced by the common person, is considerably modified by local folk beliefs (Al-Adawi et al., 1997). This negates the fallacy of a regional, Muslim personality type and the idea that life of many Muslims is strongly dictated by Islam. Challenges of life are foreordained in Islam. Islam means total submission to God. This implies that attributing the predicaments of life to other than God’s will is to question His will (Wikan, 1988).

**Theme 2: Attributions and Coping**

The question remains how adaptive to coping with disability are these culturally sanctioned beliefs and practices of Omani caregivers? Studies from different parts of the world suggest that in many traditional societies, people who are unable to care for themselves (the disabled, diseased, or mentally ill) are not seen as “ill,” instead they are considered to be possessed or to have been affected by unnatural events such as evil eyes or simply be the victim of a magical spell often tied to a social relationship (Al-Adawi, 1993). As a corollary to this, it has been suggested that the chronic course of some diseases may be eased if the sufferer’s difficulties are attributed to such forces as possession as this is likely to create culturally prescribed sympathetic acceptance, attention, and assistance (Al-Adawi et al., 2002). Contained in the reaction of the caregivers is the idea of being able to make the lost one return, by overpowering the magician, exorcising the bad spirit, or finding, seizing, and rescuing the “stolen individual” from captivity or possession. This shadowy figure of evil thus forms a focus for the expression and projection of hostile feelings. As research on stress has shown, when the “reality” becomes a burden to bear, an angry emotional reaction can be a beneficial coping mechanism (Horowitz, 1979). This may allow the individual, gradually and perhaps more naturally, to come to terms with adverse events.

**Theme 3: Coping and the Health Care Services**

Could such “exotic” reactions like belief in spirit possession and bewitchment represent an adaptation to the lack of essential rehabilitation services for survivors of TBI? In other words, if proper interventions existed, would the caregivers have manifested a similar reaction? In a recent survey of the world health care system, the World Health Organization ranked Oman as the most “efficient” health care system in the world in terms of outcome (Jamison & Sandu, 2001). This system, as in other low-income countries, is often geared toward the eradication of infectious disease and malnutrition, and medical intervention for accident victims. The latter tends to reducing mortality but does not provide supportive follow-up care. Thus, survivors of brain injury in Oman are often left without other support than that of family caregivers. It is possible that if adequate interventions were available for victims of neurobehavioral impairment, this would not only reduce the impact of disability but would also provide a venue for the caregivers to be informed about the sequelae and severity of acquired brain injury.

Studies conducted elsewhere have suggested that patients’ views of pain and suffering are diametrically opposed to the modern biomedical view (Al-Sinawi & Al-Adawi, 2006). As an extension of this finding, this study reports how primary caregivers are coping with disability of injured relatives in Oman. In Oman, the caregivers attributed the distress of their loved ones to infestation and ensorcellment. It is worthwhile to note that for the doctor, the neurobehavioral impairment is simply an adverse reaction triggered by the accident. The irreconcilable and opposing views of laypersons and professionals are likely to hinder these two parties from mutual agreement on the etiology, treatment, and prognostic indicators of the patients. This may lead to poor medical outcomes as the patients and the relatives are not likely to adhere to the treatment plan. This can further diminish patient satisfaction and negatively affect the quality of the patient’s life. These two examples from Oman illustrate that the caregivers may not even seek biomedical care because this type of distress is perceived to the prerogative of traditional healers. As Ponsford et al. (2003) pointed out, “A great deal can be learnt from the values, attributes and coping styles” (p. 466) of injured relatives and their families. Understanding how caregivers deal with their neurologically impaired relative will have a direct bearing on the doctor–patient relationship, and on which would be the most cost-effective and culturally sensitive interventions. The long period of health care specialist training and the unique acculturation process of the
training all along Western biomedical lines leaves practitioners in non-Western societies disconnected from the very societies in which they are expected to provide health care and alienated from the ethical values of their own societies. This means that many health care providers in developing countries are incapable of communicating with their patients whose views on health and illness are incompatible or incongruent with the biomedical model. As health care practitioners tend to receive little training in cross-cultural clinical communication, this creates a communication disjunction in health care delivery with significant ramifications on cost-effectiveness and efficiency. Understanding the traditional conception of illness or distress would help practitioners communicate effectively with patients and their families. Recognizing the cultural variations in coping with neurological impairment would delineate what constitutes adaptive responses for the caregivers and also lead to culturally sensitive interventions for caregivers such as providing the right information to help them cope better with caring for an injured relative.

Limitations

It is essential to highlight some of the obvious limitations of the present study. Being a qualitative study, the results of this study cannot be generalized to the whole Omani population as the aim was to gather in-depth information. Alasuutari (1995) recommended that we replace the term generalization with extrapolation to explain how the study of one case relates to other cases and to the nature of the phenomenon. In this way, case studies can help us test the limits of our existing understanding and allow us to develop or modify theories to explain occurrences. Nevertheless, further studies on this topic with a larger sample size and more robust research methodology would be essential to increase the generalizability of the findings. The other main issue with the method remains the use of two case studies without much contextual data and details, and interviewing only male family carers. It is possible that women who are often limited to domestic sphere are likely to be shielded from intruding eyes of outside; more studies taking onboard women’s potential attitudes or experiences need to be considered in the future study. On this ground, present information that has gender gap may lead to an uncomfortable suggestion about homogeneity of beliefs and practices within this rural community in Oman about illness/distress in general and brain injury in particular.

Conclusion

This article explores the coping strategies of caregivers in Oman whose loved ones have sustained brain injury resulting in cognitive, emotional, and behavioral problems. In-depth interviews provided the foundation for understanding their experiences and suggested that cultural factors, which produce specific interpretations of the predicament of their relative, influence their coping behaviors. In this age of cultural relativism, such a coping mechanism may appear to border on collective delusion and therefore may be deemed pathological. In this age of cultural relativism and within Oman’s social-cultural lances, belief in spirit infestation and ensorcelment appear to be culturally sanctioned adaptive responses for coping with difficult situation triggered by traumatic brain injury.

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