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# (Not) Surviving the Night

## A Nocturnal Ethnography of the Hospital Corridor

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#### Article abstract

While traditionally regarded as one of the many liminal nocturnal spaces within the often-labyrinthine complexes of contemporary hospitals, the corridor is not inscribed with specific activities, rules of conduct or dress codes. Instead, particularly at night they become in-between places of ambiguity and ambivalence. As a family member of an ICU patient, frequently you are asked to step outside while medical staff undertake some procedure. This can occur at any time of the night. In the early hours after midnight the family can be left to wander the darkened corridors, led on by the glow of the vending machines all safely locked inside the building and yet out of ICU. This experience of liminal nocturnal temporality by going beyond that expected of being in transition, can linger to become semi-permanent, and therefore alter the perception of the transition from life to death so that it may feel suspended, stalled, or never-ending.

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## (Not) Surviving the Night

A Nocturnal Ethnography of the Hospital Corridor

Fiona Davies

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The corridor of a hospital at night is not the same as the corridor of a hospital during the day. At night there is still light, but it is often sombre and significantly reduced. There are very few other people around. There is sound, but it is of a lower total volume and complexity and often only consists of an unattended alarm or patient call for attention that has been determined to be non urgent. The nocturnal hospital corridor can be seen as an unwelcoming, ambivalent site for the staff on night shift, the sleepless patient and family members.

Corridors whether in day or night, are framed by the British academic Roger Luckhurst in the 2019 publication Corridors Passages of Modernity as 'merely passages, volumes to pass through on the way to somewhere else. These are the parts of the journey most likely to be done on autopilot, the minutes and hours vanishing into routine habits. Dead time and dead space.' (Luckhurst 2019: 8)

Earlier in a major exhibition, Elements of Architecture in the central pavilion of the 2014 Venice Biennale of Architecture, the Biennale Director, Dutch architect Rem Koolhaas broke up the exhibition space to focus on selected elements of architecture. (Biennale of Architecture, 2014) These included the floor, windows, ceiling, toilet, corridor and so on. The German architect Stephan Trüby in the section of the exhibition allocated to the corridor constructed a series of diagonal crossing corridors referencing a maze. This focused on both the corridor as a liminal space of transition as suggested by Luckhurst overlaid with its essential critical function of being the way to leave a building, and the way to evacuate in the face of disaster. Five forms of way finding exit signage together with several video simulations on the walls of the corridors illustrated how people would or could evacuate the exhibition building and the corridor labyrinth. This flipped the idea of the corridor being a 'dead space.' (Hill 2014) However,

neither of these considerations of the corridor locate themselves in either day or nighttime. There is no consideration that the temporal, liminal or ephemeral nature of the physical space alters to reflect the time of day.

Neither are corridors always seen as dead space. Three Australian academics, Rick Iedema, Debbi Long and Katherine Carroll, have questioned the role of corridors as experienced within hospital organisation. (Iedema et al. 2006: 238) They suggest that hospital corridors play an essential role in teaching, particularly in response to emergent issues that staff are not specifically equipped to deal with. The corridor serves as a space where the rigid hierarchies are suspended. In their study of a clinical team in an outpatient clinic, the corridor became a focus after it was realised that the interactions it facilitated were highly valuable, particularly in situations where the medical staff needed to react to what was happening with a patient in a creative, complex and innovative manner. (Iedema et al. 2006: 238) In the evidence-based model, this process is described as "interactionpromoting design". The authors conclude that "Hospital work can no longer be regarded as reducible to or as simply encompassing set procedures and preplanned routines... The design of existing hospitals and hospital procedures has begun to move on from being based purely on static hierarchical and discipline-independent definitions of medical-clinical work." Their study reinforces the importance of conversations within the spaces of hospitals as being critical to developing interactive complexity. However, these studies of interactive complexity rarely consider the Intensive Care Unit (ICU) patients or their families, friends and carers. The threetier single patient spatial design, which is considered by many design professionals to be a key component of family and patient centered design in ICU, comprises a series of small spaces allocated to the one patient. (Chaudbury et al. 2004) This suite is supported by public circulation corridors and separate staff corridors. In the three-tier design the areas closest to the public circulation corridors are the spaces used by medical staff, the clinical zone. The second space is the patient's bed, toilet, and equipment, with the third space being a more private space available for the family. This is furthest away from the public corridor and tends to result in reduced incidental interaction between the family members and the medical staff.

In neonatal ICU the benefits of this design include a significant reduction in the sensory load for the newborn with less noise and light, greater facilitation of breastfeeding and "kangaroo care" or skin-to-skin contact, and the enhanced ability for extended families to stay and support the parents of the newborn. In adult ICUs, this type of design is linked to a reduction in sleep disturbance (and a subsequent reduction in pain medication), better infection control and reduced medication errors. (Ulrich *et al.* 2008) Apparently absent from the discussion is the likelihood that this type of design will reduce the number of incidental conversations between medical professionals and the patient and patient's family and friends. The provision of different circulation or corridor spaces for staff is likely to further isolate them from incidental meetings with families, friends and carers.

Proponents of this separation point to the minimisation of sound and increased privacy, with fewer people passing the patient space. It is possible to imagine this arrangement benefiting staff, some of whom likely find the queries and neediness of the family at times wearisome. However, those patients without support from outside may not appreciate the supposed benefits of these three tiers, instead perhaps seeing them as isolating, scary and detrimental to their well-being. As reported by Dillström, Bjersa and Engström one patient in their study said: "The only thing is that it's a little lonely. It's very alone in a room, and when I'm not feeling good, they don't look in on you enough. You feel vulnerable, not feeling well and don't know what had happened". (Dillström, Bjersa and Engström 2017: 201)

In my art practice the hospital corridor as a volume to be passed through, a site of transition is studied. In the life of a hospital patient and the family and carers of that patient much time is spent being moved or moving themselves from one place to another within the hospital; from the front door to the ward or the medical office, from the ward to surgery, from surgery to recovery, from recovery to ICU, from ICU to a waiting area including the corridors, from ICU to the ward, from the ward to imaging and from the ward to another ward, from the ward to home or the morgue.

In my video work Once upon a time, long ago, and far away: Being Moved from one place to another, the script, written in 2019, used a truncated form of a fairy-tale reworking or remaking fragments of the script of Ingmar Bergman's film *The Seventh Seal*.

Once upon a time long ago and far away: Being moved from one place to another.

#### Chapter One:

We can see a patient lying on a trolley in a recovery bay. The patient has come back from surgery. We can see that they are asleep. One eye

blinks. The patient can see fuzzy, ill-defined and unfamiliar shapes. We can also see these shapes around them. The patient is half awake. They are unable to move. Death appears and challenges them to a cooking competition. The patient is scared.

#### Chapter two:

The patient is being moved from one place to another. They are on a trolley. Flick, flick, blink, flick, flick, blink. The patient is alone in the corridor. Death appears and counts down from three to one, starting the competition. Death is cooking a sponge cake with a middle layer of strawberries and whipped cream. The patient pushes Death away. Death falls off the trolley onto the floor and spills the cake mixture. It forms a lake on the floor that looks like the map of Greenland.

#### Chapter Three

The patient is alone in a room. They decide to make a lemon delicious pudding.

The end.

The video was made incorporating a reading of the above script almost as if it were a bedtime story, a preparation of someone else for the night. For the visual element of the video the viewer is in the position of the patient lying flat on a trolley looking at the lights on the ceiling as they flick past. This was one of a suite of works that I started working on in 2018 and continued into 2019.<sup>1</sup>

The general but fairly loose expectation of the nocturnal patient in hospital is that during the hours of night they are supposed to be asleep. In addition, all visitors are supposed to have gone home. In contrast in ICUs which are intended to care for and to prolong the life of critically ill patients, there is often no significant differentiation between night and day. Care is provided twenty-four hours and the noise and light levels can preclude sleep. As an example, a study from 2017 in an Australian open plan twenty-four bed ICU found that during the night 'the mean recorded ambient noise level in the ICU was 52.85 decibels (dB) (standard deviation (SD) 5.89), with a maximum noise recording at 98.3 dB (A). All recorded measurements exceeded the WHO recommendations.' (Delaney 2017) Another study also from 2017 recorded the light levels in various locations in ICU over a twenty-four-hour period. The study found that while

<sup>1.</sup> The video can be watched through this link. https://vimeo.com/355286468. The details of the work are Fiona Davies, Once upon a time, long ago, and far away: Being Moved from one place to another, 2019, video, 2'20".



Figure 1. Fiona Davies, Once upon a time, long ago, and far away: Being Moved from one place to another, 2019, video still.

the mean light levels from 10 p.m. to 8 a.m. were significantly lower than the daytime levels there were frequent occurrences of strong light disruption during the night. The authors also talk briefly about the need to study further the loss of a gradual transition from day to night with the hospital's lights out/lights on approach. (Durrington 2017: 9)

Within ICU usually there is a minimal level of personalisation of the space by the patient and their family. This seems to highlight the often transient nature of the occupation of that bedspace by the body of that patient. It could easily, quickly and completely be removed, the bedspace stripped, disinfected, decontaminated, sterilised, and returned to a state of anonymous readiness for the next patient.

At night the family and friends of the patient may be asked to step outside while a procedure is undertaken on the ICU patient. They experience an abrupt transition from one place to another. They move from a place of light, noise, activity and most importantly the body of the patient in a particular bedspace to a place that is itself a place of transition often without a possible destination. It is likely that the other wards are closed, the visitors have gone home. It is also likely that the cafes are closed, and the staff have gone home. And it is likely that the building is locked. However, there may be strongly lit vending machines selling drinks and snacks. The toilets may be open. The family physically occupies the dead time and dead space of the corridor. (Luckhurst 2019: 8) The corridor is no longer a place of evacuation, of transition, or where routine habits are played out. It is a place of twilight and of occupation. It could be a confronting space that brings to mind, Aaron Betsky's statement that 'a hospital is not a nice place. It never was, and probably never will be. Hospitals are not supposed to be. They are where you come to be sick and maybe die'. (Betsky 2006: 68)

This occupation of the space of transition of the hospital corridor can be seen to be an experience of an altered temporal relationship. Liminal space and lives within a hospital generally and particularly in an ICU can be seen as temporal, material, and ephemeral, with seemingly inconsistent conditions or levels of patient agency. In particular, as a patient transitions from being treated aggressively to palliative treatment, from prolonging life or curing a condition, to managing the symptoms and of moving from life to death, the liminal constructs of simultaneously experiencing both life and death are revealed (Clinch *et al.* 2019). By going beyond the expectations of being in transition and instead lingering to become semi- permanent, the temporal property of liminality informs this process of the transition from life to death so that it may feel suspended, stalled or never-ending (Stenner 2017: 91).

There are two aspects to be discussed when considering the nature of temporality in the nocturnal hospital corridor. The term a *slow death* was postulated by American cultural theorist Lauren Berlant in her 2011 book *Cruel Optimism* to describe our belief in the efficacy of promises made to the extent that this belief is injurious to us. In reverse she writes "Cruel optimism is the condition of maintaining an attachment to a problematic object in advance of its loss." (Berlant 2011: 95) Berlant develops this concept specifically in relation to how chronic complaints exacerbated by obesity affect a statistical population declining in terms of health. However, the term could also be applied to the individual experience of a slow death or decline intersecting with the cruel optimism offered by the medicalised intervention of ICU to prevent death in the immediate future.

Berlant's concept of a slow death resonates with the concept of *chronic time* put forward by David Morris, a medical sociologist. (Morris 2008) Morris suggests that the regulation, regimes, and controls of a person with a chronic condition interfere with or alters their lived experience to such an extent that they disturb their usual relationship with *ecstatic temporality*, as Heidegger describes experiences of time disrupted from the sequential, so that their death defines their experience of time, rather than just being an episode of endurance. (Heidegger 1996: 330) There are similarities between the habitual nature of treatment regimens in Morris's chronically ill patients and the restricted everyday lives in Berlant's writings on slow death and how both situations function to reduce an individual's choices. The medicalisation of the deaths of the chronically ill individual, then, can be extended to describe a population experiencing Berlant's slow death, as such a death does not occur in a single point of time, but must inevitably occur over a period. (Morris 2008: 96)

As Crippen notes: 'Before the advent of critical care, patients sent signals concerning their degree of health, discomfort and survivability. (Crippen 2008) Patients who looked bad were bad. These signals resonated with their surrogates. However, most moribund patients on life support in an intensive care unit (ICU) look comfortable...As long as the patient looks viable it is easier to accept the premise that there is enhanced survivability, it is easier to believe that if the patient can just be maintained comfortably long enough he or she may be cured. (Crippen 2008: 168)

Looking at another example from my art practice, the large-scale installation *Blood on Silk: Last Seen* was commissioned in 2017 by the Australian curator Lizzy Marshall to be the first commission for the turbine hall of Casula Arts Centre in Liverpool, a western suburb of Sydney, Australia. The turbine hall, where visitors enter the gallery, is a cavernous exhibition space. Its dimensions are 12.7 x 26.5 x 13.8 (h) metres. The ground floor of the hall is the site of multiple points of transition and of deciding where to go and what to see. Some points relate directly to the architecture and others to the patterns or paths of passage in the space, establishing an invisible crisscrossing pattern of usage. The most overt point of transition is at the entry into the interior, followed by less obvious points of transition over the entire ground floor, as the visitor determines what sequence of paths they will take. At the mezzanine level, the visitor traffic is limited to the perimeter of the space.

Overlaid onto this pattern of transitions is the work *Blood on Silk: Last Seen*. The points of transition in the process of medicalised death start at the same place, coming through the entryways either through the hospital's emergency department or the main front door, as with Casula. Layers of transition points are then built up through the hospital's systems, design and architecture: the controls of visitor entry into the ICU, the swing doors leading to the operating theatres and the empty, shadowy corridors at night where the carer has been asked to wait while the staff undertake some procedure on the patient. The visitor enters and is drawn to looking upwards to see the large sheets of hand-made silk paper hanging from the ceiling to form five or six rooms or partially curtained bed spaces. The corners of the curtained spaces are curved, allowing one to imagine that they could be thrown back like a hospital curtain to provide access to the entire space. The visitor looks at the ceiling as if they are a patient lying on their bed just staring upwards.

The ceiling is not lit, drawing the upper reaches of the silk into darkness. In his book *In Praise of Shadows*, the Japanese writer Jun'ichiro

Tanizaki reframes the value we habitually assign to light and dark and investigates a certain type of seeing that can only be experienced in the darkness of shadows: "The darkness seemed to fall from the ceiling, lofty, intense, monolithic, the fragile light...unable to pierce its thickness... the visible darkness." (Tanizaki 1997: 34–35) In *Blood on Silk: Last Seen*, the light of the floor and the darkness of the high ceiling, illuminated only by intermittent daylight, are both offset by the brightly-lit liminal space in the mezzanine gallery. This speaks to the clarity of seeing in the shadow, evoking the way of seeing in the liminal spaces occupied by carers in ICUs and in particular in the nocturnal space of the hospital corridor.

This is a work that reflects the time of day and the weather. In the nighttime the ceiling is in deep darkness and appears out of reach and mysterious.



Figure 2. Fiona Davies *Blood on Silk: Last Seen* (detail) 2017 silk paper, thread, and projections 12.7 x 26.5 x 13.8 (h) metres



Figure 3. Fiona Davies Blood on Silk: Last Seen (detail) 2017 silk paper, thread, and projections 12.7  $\times$  26.5  $\times$  13.8 (h) metres.

During the day as the space of the gallery is not climate controlled it is possible to allow access to the wind and the daylight. The work responds to those changing conditions with some video elements only becoming visible in the late afternoon and evening as the daylight fades.

In the mezzanine gallery to the side of the main gallery, the hard, fluorescent lighting starkly refers to the liminal space of the former smoking areas just outside many hospital buildings. Along the wall at an inconvenient height a row of metal ashtrays waiting to be of no service are spaced to allow individuals or small groups of smokers to congregate and pass the time.

A video<sup>2</sup> shows three views of this work, the projections and two of the movement of the work. The details of the works are Fiona Davies *Blood on Silk: Last Seen* 2017 silk paper, thread, and projections  $12.7 \times 26.5 \times 13.8$  (h) metres as installed in Casula Powerhouse, Sydney Australia.

One of the parameters of death in an ICU is that it is associated with a physical dimension in time, a period. It is a death that has moved to



Figure 4. Fiona Davies Blood on Silk: Last Seen (detail) 2017 silk paper, thread, and projections  $12.7 \times 26.5 \times 13.8$  (h) metres

<sup>2</sup> https://vimeo.com/234787358



Figure 5. Fiona Davies Blood on Silk: Last Seen (detail) 2017 silk paper, thread, and projections 12.7  $\times$  26.5  $\times$  13.8 (h) metres

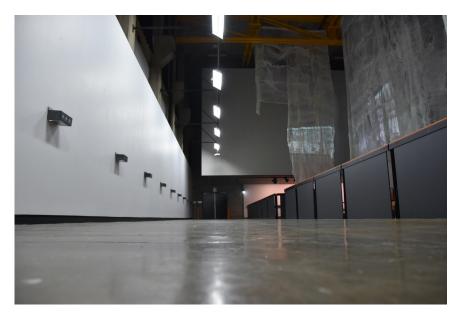


Figure 6. Fiona Davies Blood on Silk: Last Seen (detail) 2017 silk paper, thread, and projections 12.7  $\times$  26.5  $\times$  13.8 (h) metres

becoming a process through a period rather than an event occurring at a single point in time, such as indicated by the stereotypical practice of calling the time of death. Whatever definition of death is used within the specific context of an ICU, brain or circulatory, that death can take place over a period of time, not at a specific point. As the writer Phillipe Aries states: Death is a technical phenomenon obtained by a cessation of care, a cessation determined in a more or less avowed way by a decision of the doctor and the hospital team.... Death has been dissected, cut to bits by a series of little steps, which finally make it impossible to know which step was the real death, the one in which consciousness was lost, or the one in which breathing stopped...[Doctors] are the masters of death—of the moment as well as of the circumstances of death. (Aries 1974: 88)

In the context of a critical care ward, the palliative care term dying does not appear to apply to the period of time in which the death of the ICU patient occurs. The focus in palliative care is not on survivability or curing the patient, but on first alleviating pain and discomfort, and second, as the patient approaches the end of life, facilitating the process of transitioning from the state of being alive to the state of death. There is an acknowledgement that the patient is dying, whether in the short or long term. The Australian sociologist Alex Broom states that over 80 per cent of referrals to palliative care teams within Australian hospitals are cancer related. (Broom 2015: 25) As there are many other chronic conditions that can lead to death, such as heart failure, diabetes, asthma, and chronic pulmonary obstructive disease, the relatively low referral rate to palliative care from those departments may indicate that it is not the common practice in these disciplines to accept that the patient may be dying and to provide care aimed at improving the quality of their life until their death. In addition, different procedures are sometimes used in palliative care wards and ICUs. One example is how a patient's excess mucus in the airways is treated. In palliative care wards, the comfort of the patient is prioritised and humidification and a chemical means to dry up or remove mucus is preferred while, in ICUs, physical methods of removing excess mucus by suctioning are more common perhaps due to possible drug interactions. Suctioning is uncomfortable and can cause distress to the patient. (Seckel 2012: 68) This difference reflects the idea that in an ICU, there is an emphasis on saving or prolonging the patient's life rather than on providing palliative care.

The medical professional David Crippen's interview with an ICU nurse graphically depicts the way these practices can prolong the process of death at the expense of a patient's comfort:

Each day I would come in praying that I would not see her name on the whiteboard with my name next to it. And each day both were there. She moved from near death crisis to near death crisis with her vitals often hovering at levels that we all knew were not survivable - yet she survived. Analgesia was difficult due to hemodynamic instability. Her liver failed, she developed an irreversibly metabolic acidosis, and renal replacement therapy became unavailable as her cardiac output fell. Mottled and bleeding she slowly dies. She was almost at the end, a nurse summoned to her bed in the night by an alarm. Her death had taken 2 months and 4 days. (Crippen 2008: 52)

It is also timely to think about what happens after the death of a patient in ICU. The body of the patient has been the material of the interaction, the relation within a hospital. Once that body is dead the relation or the interaction stops. Until the death of the patient, the family and carers were associated with a specific location in the hospital: the bed or bedspace of the patient. After death, and in particular after the transportation of the body to the morgue, they are cut free. There is no physical evidence of the patient remaining in the public sphere of the hospital and the family of the patient occupies the corridor and transition spaces.

All these elements contribute to the experience of the liminal nocturnal temporality of the hospital corridor by the family of an ICU patient. It is one of occupation, a staying, rather than transiting quickly through to a destination. It is without a destination. The experience of the ICU may have exposed the family of the patient to the concept of a death occurring over a period rather than at a point in time. They may also be dislocated by the level of personalisation of the patient bedspace in ICU. This may result in an occupation of the nocturnal hospital corridor that can become semi-permanent, and therefore feed back into their perception of the transition from life to death so that it may feel suspended, stalled, or never-ending.

#### References

- Ariès, Phillipe. 1974. Western Attitudes toward Death: From the Middle Ages to the Present. Baltimore: Johns Hopkins University Press.
- Berlant, Lauren. 2011. Cruel Optimism. Durham: Duke University Press.
- Betsky, Aaron. 2006. "Framing the Hospital: The Failure of Architecture in the Realm of Medicine." In Cor Wagenaar (ed.), *The Architecture of Hospitals*: 68–75. Rotterdam: Nai Publishers.
- Biennale of Architecture, 2014. "Elements of Architecture." *La Biennale de Venezia*, on line: https://www.labiennale.org/en/architecture/2014/elements-architecture
- Broom, Alex. 2015. Dying: A Social Perspective on the End of Life. Farnham: Ashgate.
- Chaudhury, Hahib, Atiya Mahmood and Maria Valente. 2004. "The Use of Single Patient Rooms versus Multiple Occupancy Rooms in Acute Care Environments." *Heatlh Design*, on line: https://www.healthdesign.org/sites/default/files/use\_of\_single\_patient\_rooms\_v\_multiple\_occ.\_rooms-acute\_care.
- Clinch Megan, Sara Shaw, Richard Ashcroft and Deborah Swinglehurst. 2018. "Liminality in Practice: A Case Study in Life Sciences Research." *BioSocieties* 14: 1–23.
- Crippen, David. 2008. End-of-Life Communication in the ICU: A Global Perspective. New York: Springer.
- Delaney, Lori, Marie J. Currie, Hsin-Chia Carol Huang, Violeta Lopez, Edward Litton, and Frank Van Haren. 2017 "The Nocturnal Acoustical Intensity of the Intensive Care Environment: An Observational Study." *Journal of Intensive Care* 5: 41.
- Dillström Maria and Kristofer Bjerså and Engström. 2017. "Patients' experience of acute unplanned surgical reoperation." *Journal of Surgical Research* 209: 199–205.
- Durrington, Hannah J et al. 2017. "In a Dark Place, We Find Ourselves': Light Intensity in Critical Care Units." Intensive Care Medicine Experimental 5(1): 9.
- Heidegger, Martin. 1996. Being and Time. Albany: State University of New York Press.
- Hill, John. 2014. "2014 Venice Biennale: Elements of Architecture" World of Architecture.com 9th June 2014, on line: https://www.world-architects.com/en/architecture-news/insight/2014-venice-biennale-elements-of-architecture.
- Iedema, Rick, Debbi Long, Katherine Carroll, Maree Stenglin and Jeffrey Braithwaite. 2006. "Corridor Work: How Liminal Space becomes

- a Resource for Handling Complexities of Multi-disciplinary Health Care." In APROS 11: Asia-Pacific Researchers in Organization Studies: 11th International Colloquium, Melbourne, Australia, 4-7 December 2005: 238–247. Melbourne: Asia-Pacific Researchers in Organisation Studies.
- Luckhurst, Roger. 2019. Corridors Passages of Modernity. London: Reaktion Books.
- Morris, David. 2008. "Diabetes, Chronic Illness and the Bodily Roots of Ecstatic Temporality." *Human Studies* 31(4): 416.
- Seckel, Maureen. 2012. "Normal Saline and Mucous Plugging." Critical Care Nurse 32(5): 66–68.
- Stenner, Paul and Monica Greco. 2017. "Liminality and affectivity: introducing liminal hotspots." *Theory & Psychology* 27(2): 136–141.
- Tanizaki, Jun'ichirō. 1977. *In Praise of Shadows*. New Haven: Leete's Island Books.
- Ulrich, Roger S., Craig Zimring, Xuemei Zhu, Jennifer DuBose, Hyun-Bo Seo, Young-Seon Choi, Xiaobo Quan, and Anjali Joseph. 2008. "A Review of the Research Literature on Evidence-Based Healthcare Design." HERD: Health Environments Research & Design Journal 1(3): 61–125