Stellar

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Undergraduate Research Journal

This academic journal is a compilation of research that represents the many disciplines of Oklahoma City University, ranging from nursing, literature and religion, to education and the sciences. This diversity makes Stellar representative of all the exceptional undergraduate research at Oklahoma City University.

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Health Care Disparities Related to Race

Jean-Nicole Black

Health disparities related to race continue to plague our nation’s healthcare system. Despite decades of research and advances in health care technology, the problem of unequal treatment still exists. African Americans are disproportionately affected by disease, chronic health condition, and mortality, facing a 20% higher mortality rate amounting to a deficit of four years of life than that of whites (Kronebusch, Gray, & Schlesinger, 2014; Peck & Denney, 2012; (Penner, Blair, Albrecht, & Dovidio, 2014; Samuel, Landrum, McNeil, Bozeman, Williams, & Keating 2014).

All competencies of QSEN are adversely affected by race related disparities. Patient centered care is obstructed by the implicit biases of some health care providers (Penner, Blair, Albrecht, & Dovidio, 2014). Informatics and technology is shown to be lacking in facilities that serve minorities the most (Samuel et al., 2014). Evidence based practice would suggest that across the board standards in specific disease treatment be utilized to prevent minorities from receiving less than adequate care, yet it is highly controversial to suggest it. The argument is that although this approach would ensure quality improvement, this method would lessen patient centered care, which can be interpreted as different care for different groups of people (Penner, Blair, Albrecht, & Dovidio, 2014). Safety is also found to be compromised. When minorities are referred for surgery, they are often sent to hospitals that perform a low volume of the specified surgery, leaving the client at risk for mortality (Kronebusch, Gray, & Schlesinger, 2014). Team work and collaboration between clients, providers, nurses, and support staff is needed to monitor, research, and reduce race related health disparities. Every client should be considered a unique individual with special needs. Although their ethnic background should not be ignored, it also should not impede
needed health interventions based on cultural stereotypes (Penner, Blair, Albrecht, & Dovidio, 2014).

**Assessment/Analysis**

In my clinical experience, I have seen a different standard of care on a few memorable instances. One was an African American female who was in the hospital for sepsis, and she also had difficile colitis, and chronic anemia. The client’s lab work was far out of range for her white blood cell count, hematocrit, and hemoglobin. I was assigned to this client, and talking with her I discovered that she was unaware that she was anemic and she did not know what kind of anemia she had. At the time, we were studying some cancers that could cause the symptoms she had, yet she said her doctor did not tell her very much information. She was not receiving treatment for anemia. She had shown to have lost weight and gained difficile colitis during her stay at Mercy hospital. The client did not have control over her health, and she lacked information and patient centered care from her provider. Her nurse did not have many answers for me either. The technology available was her chart in epic which was vague in regard to anemia. There were labs but no further examination of the possibility of more serious health conditions. This was not the last time I encountered questionable care in minority clients. In another instance, a First Nations (Indigenous Canadian) male with type two diabetes was in recovery on the med-surg floor from having an operation to remove a cyst. After assessing my client’s needs, I asked for the social service person to assist my client in seeking a way to get needed medications and diabetes equipment once discharged. The attitude at the nurse’s station was that it was silly to help the client because he knew what he had, and that he did not care. To validate this judgement, I witnessed the same group of nurses referring a homeless white man to social services, and that is how I knew that it was available to assist clients. I witnessed the nurses celebrate that they were able to help a homeless man. I believe the underlying cause of the differential treatment in those instances was complex. I hypothesize that because both of these clients were poor, had little control over their health, and were admitted by the emergency department, they were
a part of a systematic health disparity. Any impoverished person might experience the same situation. The difference is, in the homeless white male client, the nurses and support staff showed concern and care. In the cases with the African American female and the First Nations male, the nurses showed no concern or question of how they could help the clients. This behavior was maladaptive of the nurses because although the system and physicians perpetuated systematic discrimination, it was the job of the registered nurses to care for all clients despite personal biases. As nurses, we might be the only person to show care to a person. That ability to show concern is what distinguishes a nurse from anyone else. When nurses ignore differential treatment and participate in treating minorities poorly, this jeopardizes the profession of nursing.

Planning/Literature Review

According to (Penner et al., 2014), racial disparities in health have three routes of causation.

- Discrimination, persistent discrimination leads to physiological stress leading to racial disparities in health.
- Physician-Decision, physician implicit bias leads to disparities in physician decision making leading to racial healthcare disparities.
- Physician-patient relationship, physician implicit bias leading to disparities in clinical communication leading to negative patient outcomes, and racial healthcare disparities.

Explicit racial bias is unacceptable in medical care, and providers and support staff do not generally engage in blatant racism. Implicit bias is automatic and mostly unconscious. A widely used measurement tool for implicit bias is the Implicit Association test (IAT), which tests the individual by measuring their response to white and black people. The responses are so quick that the person is unable to control their unconscious thoughts being quickly fired off in negative or positive responses about white or black people. Eighty percent of non-black physicians show to have biases toward African Americans, meaning they associate them in a negative form. Suggestions for
improvement include standardizing healthcare treatments for all people, despite cultural differences, and responses taught in medical school. The data suggests that providers will not respond well to being asked to confront their own implicit biases (Penner et al., 2014).

In 2012, Peck and Denney explored how health disparities are present in meetings between African American clients and their providers. Data were coded from 221 audiotapes of physician-client meetings. Seventeen physicians and 221 clients participated in the study over 11 months. There were consistent differences based on race, and this could be attributed to communication differences. Providers were more likely to talk the entire duration of an African American client’s visit versus a white client’s visit, where the physician would converse, allowing the client to communicate more, thus providing a patient centered experience. The study also showed that whites generally have a 20% longer office visit than non-white clients (Peck & Denney, 2012).

In 2014, Samuel et al. conducted a study within 118 Veterans Affairs (VA) health care hospitals to determine whether race related cancer care disparities were perpetuated in-hospitals or between hospitals. Cancer cases including 12,897 colorectal, 25,608 lung, and 38,202 were used. By linking data from both the VA cancer registry and Medicare, 20 cancer quality measures were examined. Logistic regression was used to assess racial disparities within each measure. Within-hospital differences were to fault for seven out of 20 measures that displayed racial disparity in cancer care within the VA. Within-hospital differences are discriminatory patterns of care in providers within a facility. Some of the patterns showed that African Americans were not likely to receive an early treatable cancer diagnosis. Curative surgeries were shown to be reduced, and potent anti-emetics were more likely to be withheld, even when the clients were to receive highly emetogenic chemotherapy. 3D CRT/IMRT was recommended in 2001 by the National Comprehensive Cancer Network. Many facilities that served a high volume of African American client’s technology lagged behind, and 3D CRT/IMRT did not reach all VA hospitals until 2006. This delay affected the hospitals where most African American prostate cancer clients were served. Samuel et al.
(2014), recommended further exploring the source and causation for in-hospital disparities and also highlights that the technology and medications must be equally accessed by all veteran clients across the country.

Disparities caused by hospital capacity and lack of use of high volume hospitals was examined by two different studies (Kronebusch et al., 2014; Li, Chen, & Mead, 2013). Kronebusch et al. (2014) defined the problem that minority clients often do not seek or are not referred to hospitals that perform a high volume of surgeries, leaving them vulnerable to higher mortality rates. It was found that several issues prevent minority clients from finding the best information to lead them to the most qualified surgeons. Too many options within an urban area can mislead a client into using a low volume hospital. Lack of case management, low assistance from their providers, and mistrust of the healthcare system leads minority clients to rely on social media, family recommendations, and convenience (Kronebusch et al., 2014). Li et al. (2013) performed a study of 207,570 Pennsylvania Medicare clients admitted with myocardial infarction to examine if hospital capacity affected whether minority clients received cardiac revascularization procedures. The findings suggested that African Americans were less likely than whites to receive coronary artery bypass graft and percutaneous coronary interventions. One finding was that having Medicaid listed as the second payer reduced the probability of having the cardiac revascularization procedures. Thus, having a lower economic status reduced access to care. The study suggested that when resources are limited, African American clients suffer. Whites are either over-utilizing available resources or African Americans are underutilizing them due to not being managed by a cardiac specialist as well as a lack of referral practices. Recommendations were to improve case management in African American clients so that they receive equal access to Medicaid funded cardiac procedures (Li et al., 2013).

**Intervention**

Nurses spend the most time with clients and have the ability to advocate for their clients. Case management can help eliminate the health disparities minority clients face. By utilizing a
process in which the nurse assesses and plans clients’ needs, researches resources, and coordinates care. The goal is that the client isn’t left alone in their health struggle and that the nurse case manager successfully promotes autonomy, which enables the client to develop an internal locus of control over their health (Stanhope & Lancaster, 2014).

A goal of Healthy People 2020 is to eliminate health disparities between people of different ethnic, socio-economic, sexual preference, and gender backgrounds. Objectives are AHS-3: Increase the proportions of person with a primary care provider; and AHS-7: Reduce the amount of individuals who cannot gain health care, dental care, or medications. African Americans make up only 5% of registered nurses in America, and although studies show improved satisfaction with same race care providers, it is not realistic to provide everyone with a nurse or provider of their own background (Peck & Denney, 2012). According to Stanhope & Lancaster (2014), cultural competence needs to be implemented within the nursing profession in order to serve all people equally. “Cultural competence in nurses is a combination of culturally congruent behaviors, practice attitudes, and policies that allow nurses to work effectively in cross-cultural situations” (p. 74). Cultural competence is an on-going, life-long learning process for nurses, and it is something that nursing education should highly focus on. The rationale is that most of the time the clients a nurse cares for does not share the same background as the nurse. Client safety is affected when the client does not feel understood or feels judged by their nurse, and they are less apt to divulging important information (Stanhope & Lancaster, 2014).

Standardizing care in disease treatment, pain treatment, and surgical procedures would close many of the gaps in perceived discrimination (Hall-Lipsy & Chisolm-Burns, 2010; Penner et al., 2014; Samuel et al., 2014). There are many documented instances where minority clients did not receive adequate pain control, lipid lowering drugs, hypertension management, and asthma control in children, or even zidovudine, which is a prophylactic treatment that significantly reduced pneumonia in HIV positive patients (Hall-Lipsy & Chisolm-Burns, 2010). One would think that equality would be more present in surgeries that are covered by
Medicaid or the Veterans Hospitals because the clients have the same qualification to access care. The playing field is not leveled with having equal insurance or equal access to the Veterans hospital (Kronebusch et al., 2014; Li et al., 2013; Samuel et al., 2014). Standardizing care would ensure that all people receive the same diagnosis, medications, disease treatments, and surgeries. Though patient centered care may be considered compromised, the greater good for all needs to be considered. Currently, most minority clients are not receiving equal health care (Hall-Lipsy & Chisolm-Burns, 2010; Kronebusch et al., 2014; Li et al., 2013; Peck & Denney, 2012; Penner et al., 2014; Samuel et al., 2014; Stanhope & Lancaster, 2014).

**Evaluation**

To determine problem resolution, nurse case management should keep a record of client outcomes, medication adherence, surgery referrals, mortality rates, and provider satisfaction among minority clients. This would work best if the case manager works within a community clinic that serves a specific ethnic population. Better care and advocacy is shown to be more present within community health services (Stanhope & Lancaster, 2014). The Veterans Hospitals should continue to conduct studies to ensure that health disparity gaps are closing; by continuously measuring quality of care within hospitals and within the network, it will better serve all veterans.

As a public health nurse, I plan to continuously advocate for cultural competency of all nurses and providers that serve the public. A way to measure biases is by using the Implicit Association Test. I do not think it is a measure of character of a potential employee, but it serves as a starting point in the conversation that most people have implicit biases regarding non-whites. This starting point assessment could potentially show healthcare workers that they do have areas of needed improvement in regards to serving people of different races. From that starting point would be workshops and classes devoted to overcoming unconscious biases. Improvement would be measured by client satisfaction and a record of better outcomes for minority clients.
References


The Greatest Story Ever Told: From Harry Potter to Jesus Christ

Brandie McAllister

Abstract
This essay will attempt to persuade any Muggle who believes the Harry Potter series is a ploy to get children to turn to the occult that they are mistaken. Quite contrarily, the books teach the inherent human values of faith, hope, and love. We will explore Harry Potter through a Biblical lens, making the parallels to Christianity known—both those inferred through evidentiary support from the text and those expressly stated by the author herself.

1,084,170 words. 4,100 pages. 198 chapters. One universal story encapsulated within seven novels that sparked a global phenomenon. It’s the story of The Boy Who Lived and it will transcend generations so long as people continue to believe in magic, that a power bigger than themselves exists. Over 450 million copies translated into 67 different languages have been printed. Only The Bible and Chairman Mao’s Little Red Book have sold more copies. Over the years, they’ve garnered dozens of awards and, together, the film versions have raked in nearly eight billion dollars worldwide. But like the close-minded Dursleys, not everyone is a fan of Harry Potter.
It was in New England in the 17th century when a book was first banned and ever since, America has kept up this inglorious tradition. It’s not to say that the arguments justifying the banning were unfounded; the Christian community had their reasons. In the 2011 article “Religion in Harry Potter”, two arguments are offered. One is that “The positive messages are packaged in a medium—witchcraft—that is directly denounced in scripture” (Armstrong 51) and the second, that “Rowling’s heroes typically do not sacrificially ‘turn the other cheek’, as Jesus advises” (52). But saying that Harry Potter teaches kids witchcraft is like saying Grey’s Anatomy teaches you how to be a heart surgeon or Law & Order teaches you how to be a lawyer. The mere notion of it, in the words of J. K. Rowling herself, is pure lunacy.

Quite contrarily, the books’ Biblical underpinnings, both the subtle and the not-so-subtle, prove the opposite. Harry’s story reflects that which has been hailed as the greatest in human history: the story of Jesus of Nazareth. Funnily enough, Jesus Christ was actually a potter in his own right—a potter of men. “You, LORD, are our Father,” so says Isaiah chapter 64, verse eight. “We are the clay, you are the potter; we are all the work of your hand,” (New International Version). Whether Mrs. Rowling meant this to be a tongue-in-cheek comparison of her hero to the Son of God or it’s simply coincidence remains to be seen, but the fact that theme parks have been built so that readers can live out their bookish fantasies and college courses have been created where the seven novels are the textbooks are each a reminder that an entire generation of children, now grown into
adulthood, might score higher on questions about Harry’s life than they would on Saint Matthew’s biography of Jesus Christ.

Upon closer inspection, *Harry Potter* critics may find the two stories aren’t as different as they seem. Both narratives tell the timeless tale of the triumph of good over evil and are quintessentially analogous. The proof is that the conflict of both stories can be summed up using the same sentence: A dark lord focuses his time and energy on recruiting people to join his dark army with the ultimate goal of total power and dominion over all mankind. This ‘dark army’ is quite literally death itself, personified by the Death Eaters in *Harry Potter* and represented by sin in Christianity. In fact, death is arguably the most prominent theme in all seven books, more specifically fear versus acceptance, as Harry faces it countless times. Mrs. Rowling has stated that Harry was the “prism through which [she] viewed death” (Warner), having just started writing not long before her mother passed away.

Joanne Rowling, the first person on Earth to become a billionaire by writing books then lose her billionaire status for donating too much of her money to charity, grew up attending the Church of England, which may explain the religious allusions found within her stories. These references, at least for her, were always apparent. In a 2007 interview with *The Telegraph*, Rowling stated that to her “the religious parallels have always been obvious. But [she] never wanted to talk too openly about it because [she] thought it might show people who just wanted the story where we were going” (Petre).

Could Patronuses be angels? Pure spirits, almost saintly in their task of protecting the conjurer? After all, in Latin *patron* means protector or advocate, hence the term Patron Saint. For

Harry and his father James, their quote unquote ‘spirit animal’ is a stag, a natural enemy of the snake and a common depiction of Christ in early Christian art. Similarly, Dumbledore’s phoenix Patronus is also a symbol of being born again. The otter—Hermione Granger’s Patronus—is the only foe of the basilisk and the doe—the Patronus of both Lily Potter and Severus Snape—has long been a symbol of maternal love. In this way, Rowling has ensured her message of love is represented by a physical, invincible force which protects anyone who takes the time to practice at it.

Could, then, some of the central role model-type figures such as Albus Dumbledore be archetypes of Patron Saints? J. K. Rowling has an answer for this as well. In a Warner Brothers interview between herself and Daniel Radcliffe—the actor who devoted a decade of his life to playing what’s now arguably the most well-recognized protagonist in children’s literature—she likens Dumbledore to one prominent Biblical figure. “Clearly he’s John the Baptist to Harry’s Christ, isn’t he?” she states in the 2011 conversation. “He’s the nearly ran man. The man who nearly could have had the Hallows, but he was too power-hungry. That was what was interesting to me about Dumbledore… he’s the fount of all worldly wisdom, and he teaches Harry what he needs to teach Harry because he recognizes that Harry is going to be the one,” (HarryPotterAdmirer).
John the Baptist, who is honored as a saint in most Christian traditions, was followed by Jesus. There are several New Testament stories that suggest those who became Jesus’ followers were first disciples of John. The account of John’s death in the gospels is, like Dumbledore’s, a tragic case of an innocent person following orders. In John’s case it was a young woman named Salome who ordered to have his head. Herod, a king in Galilee at the time of Christ, became drunk on his birthday and when Salome danced for him, he was so pleased by her that he promised to give her anything she asked for, up to half his kingdom. When young Salome didn’t know what to request, she turned to her mother who demanded the head of John the Baptist. The king was reluctant at first, but he’d made a promise. This reflects the case in Harry Potter, when Severus Snape is just as reluctant as the king when he performed the Killing Curse, having been under the Unbreakable Vow, a spell which forced his hand. Essentially, both men’s deaths weren’t desired by the culprit of the murder. The illustrious history of these holy figures has shown time and again they embrace death willingly, for the divine power and treasure they seek won’t come until their next life. This is exemplified in *Harry Potter and the Half-Blood Prince*. Dumbledore is slowly dying after ingesting the Drink-of-Despair, a fatal poison. He entreats his friend Severus to finish what’s already begun rather than suffer a worse fate at the hands of Voldemort’s Death Eaters. He does so free of even the faintest flicker of fear, for he knows (as we learned in *Sorcerer’s Stone*) that “to the well-organized mind, death is but the next great adventure” (Rowling 297).
The author of the 2013 article “Harry Potter and the Legends of Saints” points out that in *Deathly Hallows*, Neville Longbottom is similarly depicted as saintly. Neville’s torture—augured by the notorious torture of his parents by Lord Voldemort years before—echoes that of Saint Margaret the Virgin. When Neville is asked to join Voldemort’s side, he vehemently refuses as any steadfast saint would. When Voldemort attempts to set him on fire, Neville walks out of the flames unscathed just like St. Margaret who, after refusing to denounce her Christian faith, was first set on fire then thrown into bowling water, but emerged from both incidents completely unharmed. These religious devices help to “identify the heroes and villains... underscore the values of the text, and, ultimately, reassure the audience that goodness will defeat evil in the end” (Hennequin 68). It’s important to note these two characters—Harry and Neville—have nearly identical life stories. Having both lost their parents to the heinous acts of Lord Voldemort and thus being raised by family, it makes sense Neville should have his final stand too. Other than being less courageous and socially adept as Harry, Neville is the only other character whose late-bloomed bravery deserves just as much recognition in the end as Harry’s.

Another example of eerie similarity might be in the resemblance between the *Deathly Hallows* symbol and that of the Holy Trinity. With the former, each part of the emblem represents three legendary objects that, if united, would make a person the master of death. The three objects include the Elder Wand (the vertical line in the center) the resurrection stone (the circle surrounding it) and the triangle (the cloak of invisibility) enclosing them while each point signifies the Holy signs exemplify achieve

It’s also in *Half-Blood Prince* that we’re first introduced to the idea that Harry is “The Chosen One”, just as Christ was chosen for the greatest human sacrifice in history, both men willing martyrs for the well-being of their respective worlds. It’s also in the sixth book that we are told that repentance can restore the wholeness of the soul, quite literally in Voldemort’s case. Rowling has, “in the image of [his] damaged soul, provided an example of the idea that one damages one's soul by sinning” (Egerton). Perhaps, then, the Horcruxes are the opposite of the pure Patronus spirits, the dark version of magical protection. Literarily, these objects provide an illustration of the belief that earthly achievements can obtain a person immortality.

In Hebrew, one definition of the phrase ‘to be evil’ translates into English as ‘to be broken into pieces.’ And that’s exactly what Voldemort has done, broken his soul into pieces and ruined what was once good by murder, just as Christians believe sin tarnishes the goodness of the human soul. Initially, there are seven Horcruxes, but seven is considered a holy number in the Bible, one that represents completion. Then the reader finds out that Harry is the eighth Horcrux. In numerology, the number eight often means self-destruction. In keeping with the Christian belief that one must repent their sins to be made whole again, born anew in Christ, there is a point before the final battle when Harry gives Voldemort a chance in the final book to “try for some remorse” (Rowling 594), which follows in line with two ideas: (1) that Harry is a Christ-figure after all and (2) that it’s never too late to repent the dark deeds you’ve done.

Direct references to Biblical scripture can be found in the books as well, etched on the tombs of the dead: the headstones of Dumbledore’s sister and mother have an inscription taken from chapter 6 of the Gospel of Matthew: “For where your treasure is, there your heart will be also,” (NIV). Rowling uses this quote as a means to express that Dumbledore’s heart lies with his family; taken in the context of Voldemort, however, we see that the same scripture becomes perverted. He chooses to store what he considers to be valuable—his own soul—in earthly possessions—the Horcruxes—that could rust or be stolen. And etched on the gravestone of Harry’s parents is 1 Corinthians 15:26 which reads,
“The last enemy that shall be destroyed is death,” (NIV). What Rowling doesn’t say in the books is that this verse is from the passage in the Bible where the Apostle Paul is discussing the resurrection of Jesus Christ.

In the article “Life and Death in Harry Potter: The Immortality of Love and Soul” the author compares the doubts and trepidation that Harry feels after realizing he’s a Horcrux to the same fear that Christ felt in the Garden of Gethsemane (Stojilkov 139). This Garden in Jerusalem is where Jesus prayed and his disciples slept the night before his crucifixion. Likewise, this is where Harry experiences a similar internal battle about what is to come in the days ahead. As to his fate, Rowling leaves us a clue in the very name that every witch and wizard (with the notable exceptions of Harry and Dumbledore) fears to speak. The name Voldemort has French roots, translated as ‘will to death’ or ‘one who flees death.’ This knowledge offers the reader insight into the Dark Lord’s true nature and ultimate aim: that in fearing his own mortality, Voldemort will be the wizard defeated and Harry, accepting his death as a necessary sacrifice for the greater good, would be the one to survive, harkening back to the title of the first chapter of the first book, in which Harry is once again The Boy Who Lived.

Near the end of their lives, before the idea of resurrection comes into play, the theme of martyrdom hangs heavy in both stories. In
the case of Harry, it would be prudent to note that each time he escapes death (and there are plenty of times), it happens in the presence of a symbol of Christ: the phoenix (for rebirth), the Philosopher’s Stone (for eternal life), the stag Patronus (for Jesus himself). The list goes on.

In Lisa Miller’s 2007 article “Christ-like” she makes the connection between chapter 35 in Deathly Hallows titled King’s Cross and the obviously Christian meaning behind it. In the chapter, Harry looks up to see a “great domed glass roof [that] glittered high above him in the sunlight’ (Rowling 706) where he talks to a father figure with ‘long silver hair and a beard’ whose supernatural powers are accompanied by a profound message of love,” (Miller 12). To Christians, this should sound familiar.

Why some parents and teachers think Harry Potter bears a negative influence on its readers, that it puts ideas about the occult into their heads, but they don’t think twice about the magic presented in classic fairytales like Cinderella in which the protagonist is delighted to have a spell put on her by a fairy, animals are transfigured, and objects are bewitched isn’t perplexing when one considers the way in which each story is presented. Harry Potter is different from most, which is why it’s had such lasting power. Through Harry, Rowling does something amazingly ambitious for a children’s series that other stories do not—she exposes the darkness within us all, the true nature of the human condition in all its slimy wickedness.

Ultimately, it’s the novels’ nonreligious themes that drive the story forward, showing great heroes fighting for what they believe in, struggling against bigotry and oppression. It’s
Rowling’s talent at weaving these universal themes into a vivid coming-of-age tale filled with wonder and mystery and adventure and compelling characters who readers can see reflected in themselves that makes the books what they are. Regardless of readers’ cultural and religious upbringings, the theme that is constant, that permeates every continent, every country, every creed, and every culture... is love. There’s a verse in the Bible, 1 Corinthians 13:13, one of the most famous of all, that reads, “And now these three remain: faith, hope and love. But the greatest of these is love,” (NIV). And with love, all is well.
Bibliography


Throughout history, gender roles have significantly impacted both men and women in their life choices as they have attempted to conform to or rebel from societal expectations. This phenomenon becomes apparent throughout Euripides’ Medea, as stereotypes for men and women factor heavily into the story’s plot. Medea is expected to be dependent on her husband, who betrays her. Jason, the man of the house, feels social pressure to be the provider and increase his social standing through connections to more respected citizens. According to him, these pressures caused his attempt to secure the affections of the princess. Medea and Jason are not entirely at fault for the outcome of their story because their choices reflect attempts to conform to or rebel from the societal standards of their time. The gender roles presented in Medea by Euripides contribute to the conflict between Medea and Jason as the two struggle to understand themselves and each other in a culture of gender stereotypes. The pressure of social expectations prevents their reconciliation and ultimately leads to Medea’s murderous plans. Although Medea’s actions in killing her children, the princess, and the king cannot be justified, the obvious disadvantage of her position as a non-Greek female in Greek society cannot be underestimated. By embodying stereotypically masculine traits to accomplish her objectives, Medea breaks free of gender norms and has become a symbol of the danger of an oppressed woman with nothing to lose.

Stereotypes for women in Medea become apparent from the exposition of the play. In the nurse’s opening, she claims “life is most secure and safe, when woman and her husband stand as one” (19-20). Immediately, the expectation that women need their husbands for security becomes apparent. Medea expresses her frustrations about the role of women in her society. “We women
are the most unfortunate. First, we need a husband, someone we get for an excessive price. He then become the ruler of our bodies” (264-268). As women depend so completely on their husbands’ merit to maintain good standing in society, Medea’s situation is particularly upsetting to her. Jason not only left her to marry the princess, but felt justified in doing so because it helped his social standing. Medea laments that “a divorce loses women all respect, yet we can't refuse to take a husband” (271-272). Without divorce as a viable option, and living as a foreigner with no family in Greece, Medea desperately lacks good options for her future. She chooses to voice her unconventional opinions about women and her role as the scorned wife out of extreme frustration.

Medea’s inability to cope with circumstances in a socially acceptable way ultimately worsens her situation. After Medea excessively bemoans her situation and curses Jason publicly, Creon decides to take action. He tells Medea “I'm ordering you out of Corinth. You must go into exile” (315-316). Since Medea refused to silently accept Jason’s betrayal, Creon chooses to exile her. Discontent women are dangerous to society, and Creon does not want trouble. Medea clearly expresses her opinion about how others judge her. “There's no justice in the eyes of mortal men. Before they know someone's deep character, they hate her on sight, though she's not hurt them” (249-251). Medea, a woman with no power in society, vigilantly uses language to represent her position and frustrations.

Laura McClure, in an analysis of Medea’s language, suggests that, unlike other women of her time, Medea uses blame discourse, a stereotypically male form of communication, in combination with more feminine means of persuasion. Beginning in the prologue of the play, Medea uses “angry and condemnatory speech even as it attributes the tragic chain of events to Jason’s unsettling abuse of language” (McClure 379). Medea utters curses, threats, reproaches, name-calling, and other abusive language throughout the play. These stereotypically male methods of discourse contrast with the more traditionally female means of persuasion she employs, such as supplication. Medea’s language “suggests a transgression of normative gender roles that prefigures her elevation to semi-divine status at the end of the play” (McClure
Through the combination of stereotypically male discourse and female persuasion, Medea paints herself as the victim, enabling herself to accomplish her vengeful objectives.

Like Medea, Jason too is influenced by gender expectations in society. Men in Greek society have rigidly defined gender roles in Euripides’ *Medea*. The tutor first exposes what a typical man is expected to be. “Don't you know yet all men love themselves more than their neighbors” (107-108). In addition to being self-obsessed, Medea describes men as arrogant. “Many men, I know, become too arrogant both in the public eye and in their homes” (244-245). With these attributes as the expectation for men, Jason’s actions seem to be in line with the role of men in society. Furthermore, Jason feels pressured by society to be well-off. He justifies his actions by claiming, “The most important thing for us to do is to live well and not in poverty, knowing that everyone avoids a friend once he's a pauper” (664-667). Marrying the princess helps Jason’s social standing considerably, leading to significant upward mobility for himself and his children. The expectations of society and the incentive of riches lead Jason to betray Medea, his wife, for the princess. He repeatedly justifies this decision, saying “I didn't marry her because of any woman. As I told you, I wanted to save you and have children, royal princes, with the same blood as my sons. That way my house has more security” (706-710). While Jason seems to believe his actions can be morally justified, he also recognizes the dangerousness of Medea’s situation. Jason understands Medea’s anger and acknowledges it directly. “In other things a woman may be timid—in watching battles or seeing steel, but when she's hurt in love, her marriage violated, there's no heart more desperate for blood than hers” (304-307). In explaining how dangerous a woman scorned is, Jason recognizes that he has caused a potentially dangerous situation. Instead of regretting his actions, he claims “There should be no female sex. With that, men would be rid of all their troubles” (683-684). Jason ultimately condemns women as a sex and rejects an awareness of his own role in causing Medea’s anger.

As Jason fails to take accountability or work towards a solution, Medea’s situation becomes apparently desperate. The chorus leader acknowledges the hopelessness of her situation.
'Where will you turn? Where will you find someone to take you in? What country, what home will you find yourself to save you from misfortunes?’ (424-428). Medea lives as a foreigner in Greek society after moving to Greece with her husband, Jason. She comes from a barbaric nation and has already acted barbarically before the play by causing the death of her brother. In Medea, her otherness maintains an importance to the plot. Medea’s position as a non-Greek female leads the audience to the expectation that she may act more barbarically or less properly than Greek females. Other characters, including the Athenian chorus and the nurse, attempt to persuade Medea to adhere to Greek standards as any Athenian female would, but she comes from a less refined culture, and one that enables her to act out in ways Athenian women would not. Perhaps Medea’s otherness contributes to her capacity to form murderous plans. She views the gender stereotypes in Greek society as an outsider and rejects conformity to the repressive norms as she increasingly recognizes her limited autonomy and opportunity within the social structure.

Although Medea kills the princess, Creon, and her own children, her actions do not occur independently of outside influence. Societal gender roles initially influence Jason in his decision to leave Medea for the princess. His arrogance and pride prevent him from seeing the fault of his decisions and he justifies his actions by claiming he was only aiming for a better social standing. The societal roles for women leave Medea without the ability to be truly self-sufficient and Jason’s betrayal forces her into the role a scorned woman. Society does not punish Jason in any way for his actions and Medea desperately wants revenge. Independent-minded and frustrated with society’s oppression, Medea choses to take the situation into her own hands, committing the murders that define her story. Medea may be forever condemned, but a better understanding of the social structure and gender roles of her time can lead to a more holistic approach in understanding the causes of her madness.

Euripides seemed revolutionary in his time for his nonconformist representations and his cynicism. Medea’s story embodies both attributes. Medea ultimately succeeds in her goals by taking on apparently male attributes, a testimony to the power
of nonconformity. As a result, she kills both her children, the princess, and the king, a reflection of Euripides’ cynicism in regards to the effects of nonconformity. From the start of Medea, Euripides presents gendered language about men and women. The stereotypes become deeply imbedded into the text. In her actions and language, however, Medea takes on stereotypically male traits to accomplish her objectives. According to Abou-samra, Euripides “suggests that females, specifically Medea, must take on stereotypically masculine qualities in order to succeed” (1). If Medea had adhered to the gender roles for women of her time, she could not have accomplished her plans for retribution. Brad Levett clarifies that although Medea’s use of deceptive language seems to be stereotypically female, her masculine ability with words conflicts with the norm for females. Medea demonstrates “the ability to resist the persuasive power of others (verbal autonomy) and the ability to maintain control of one’s own language (verbal self-restraint)” (55). Medea demonstrates verbal autonomy as she pursues her intended course despite pleading by the chorus and Jason. Medea exhibits verbal self-restraint by hiding her murderous plans from other characters of the play. Women in Medea’s time had a reputation for being terrible gossips and for being particularly suited to lamentation (Levett 57). Medea, however, represses the stereotypically female urges to share her intentions and to lament her losses. Levett expresses “Medea, by pursuing such epic (and male) values, comes into conflict with that part of herself that would have been viewed as more feminine, most obviously her love for her children” (54). In abandoning her love for her children, Medea uses her complete autonomy to create murderous plans, rejecting the stereotypes for her sex in her acts of infanticide.

Euripides’ representation of Medea has “penetrated to parts of modernity most mythical figures have not reached” (Hall 42). What about Medea’s story remains relevant through centuries? Part of the historical success of the story depends on the fact that Medea “enacts a primal terror universal to human beings: that the mother figure should intentionally destroy her own children” (Hall 42). Directors and writers throughout history have consistently adapted Medea. In the 18th century particularly, writers prevented
Medea from killing her children or exculpated her by a fit of madness. “Medea was considered too morally repulsive to be impersonated in person” (Hall 47). Not limited to Euripides’ space and time, Medea has become a historical symbol for feminism. For example, Medea’s popularity on the British stage dominated in the 19th century when women sought more equal divorce legislation and at the turn of the 20th century with the women’s suffrage movement (Hall 43, 51-56). The image of a vengeful and powerful women determined to enact her revenge inadvertently reveals the importance of equality. When one group feels consistently oppressed, acts of violence result, Medea’s actions being a particularly drastic example. Euripides’ nonconformist representation of a woman has resounded throughout history as women have rebelled from social expectations, using Medea as warning about the dangers of oppression. In Medea, Euripides illustrates the perils of a scorned woman with nothing to lose; he suggests that women must be treated more fairly or the consequences will be fatal.

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Bombs Not Food:  
The Role of Women in Religious Terrorism

Rebecca LaVictoire

In 2010, Colleen La Rose, “Jihad Jane,” sparked a media sensation when she was accused of recruiting and radicalizing Islamists and plotting to kill an artist who depicted the prophet Mohammed in a satirical cartoon. This was not the first incident of a woman participating in terrorist activities or political violence; however, violent women never seem to stop catching us by surprise. Women have a long history of participation in political violence and terrorism, from Amazonian warrior tribes of Ancient Greece to female suicide bombers of contemporary terrorist movements. In modern terrorism, female participation is varied. Women participate in all aspects of political conflict, from traditional feminine tasks such as marriage and reproduction to active militancy (Vogel, et. al. 2014). However, women are not proportionally represented in terrorist organizations, and are particularly underrepresented in religious, right wing terrorism. Due to an ideology that typically advocates for equality of the sexes as a secondary goal, across the world, women are more frequently seen in left-wing organizations (Cunningham 2003). Right-wing groups have historically been unlikely to include women in leadership and combat roles, because of a patriarchal, traditional belief system. The importance of understanding the motivations behind women in religious terrorism lies in the fact that female participation in this type of terrorism, especially suicide bombing, is growing (Davis 2013), and fundamentalist religiosity is the primary cause of contemporary terrorism.

Women are seen as an anomaly in terrorism studies because they violate traditional conceptions of masculinity and femininity. Violence is the male arena, while women are supposed to remain passive. This idea also centers on the masculine role in
public, where the female belongs in the private arena. Thus, women participating in political violence are violating traditional gender roles. These roles are often reinforced or heavily propagated by the major religions. Women participating in intentionally public acts of religious terrorism create a contradiction within the ideology of religious terrorism groups. The religious doctrine of most traditional societies states that women are to remain in the private sphere, yet women are often very useful strategically for terrorist operations. I intend to address the role of gender in religious terrorism generally, and specifically study this contradiction. Generally, I intend to look at motivations specific to gender in religious terrorism: why do men dominate religious terrorism? Why and under what circumstances do women participate? Specifically, why do right-wing terrorist organizations actively recruit women and use them in operations when it potentially puts them in a public relations nightmare? How do religious terrorist groups then justify the use of women doctrinally? This article makes the case that men dominate religious terrorism predominately because of their patriarchal ideology. Female participation in religious terrorism is growing, and their role and reasons for joining are primarily non-gendered. Women participate in political violence under many of the same circumstances and in many of the same roles as men, despite attempts to undermine their roles and their ideological, political, or religious motivations. Fundamentalist-religious terrorist groups have shifted their ideology to include active female terrorists for strategic advantage, due to the necessity of tactical innovation, and due to the publicity that female terrorists generate.

First, it is important to understand that if women participating are an anomaly, men dominating religious terrorism are also an anomaly that should be looked at. Male participation in general terrorism is disproportionately large. This is commonly accepted at face value, and is not given serious academic scrutiny. While terrorism is male dominated, the role of gender is not often dissected as a major factor, and the question of why terrorism is male dominated is often overlooked. Religious terrorism is especially male-dominated when compared with left wing or secular groups. Juergensmeyer (2003) addresses this important
question and hypothesizes that the male domination of religious terrorism represents a kind of frustrated sexuality projected upon society. Terrorism is about power, political or otherwise. Gender for Juergensmeyer is inherently related to sexuality. Thus, almost exclusive male participation in these acts of religious terrorism indicates some perception of failed sexuality through the loss of control, identity, or power. This “sexual despair” leads to acts that are a symbolic reassertion of dominance and empowerment. Women’s liberation and gender equality (as well as homosexuality) are seen as much of the cause of the loss of male domination. Religious terrorist groups often wish to return society to a more traditional (read: patriarchal) organization through violence and indoctrination. One can easily see how this would lead to a lack of women in leadership positions and an extreme unwillingness to allow women to flout traditional gender roles.

Women are most frequently portrayed as victims of political violence. They are seen as lacking agency. Thus the motivations of women participating in terrorist violence are often heavily scrutinized, because they do not commonly participate, and because they violate our traditional gender norms of where and how a woman participates in society. Academics often fall prey to these gender norms and search for other less “authentic” justifications for female participation (Cunningham 2003). Surely women do not participate due simply to a passion for the cause in and of itself (Cunningham 2003; see Gonzalez-Perez 2011). Academic studies of terrorism seek a reason for female participation that corresponds to the author’s notions of gender, and often apply more personal, less public, motivations to women participating in terrorism. These gendered motivations have been described as the “4 R’s plus one”: personal redemption from sins, revenge of a lost loved one, respect, coercion or influence due to a relationship, and/or rape (Bloom 2011). Vogel et. al. (2014) argue that these justifications are problematic because they take agency away from women that commit acts of terrorism, and thus further the idea that female terrorists are less authentic by denying their political, ideological, or religious motivations.

Often the reasons women participate in religious terrorism are non-gendered. After Wafa Idris blew herself up for the
Palestinian cause, many Islamic Palestinian women lined up to become martyrs for many of the same reasons men were willing to become martyrs- the Palestinian occupation (Cunningham 2003). Women likely became more enthusiastic after Idris’s actions due to a perceived shift in the willingness of Islamist terrorist organizations to allow women to become martyrs. The High Islamic Council in Saudi Arabia issuing a fatwa in 2001 that encouraged women to become martyrs and join the fight evidences this. Once a woman saw Idris’s success it is likely she could identify with Idris and imagine sacrificing herself for the cause as well. These factors could explain the increase in participation by women in suicide bombings over the past thirty years (Davis 2013). This idealization of the female martyrs was encouraged by the religious terrorist organizations as a means of justifying the movement away from traditional gender roles, as I will discuss in more depth later. It is difficult to study actual personal motivations for female participation in religious terrorism due to a lack of data.

Despite skewed academic and media portrayals of why women participate in terrorism, demographic factors are easily studied, and do not differ significantly from men. Social and economic opportunity seem to be driving factors in participation in terrorism no matter an individuals gender (Cunningham 2005; Dalton and Asal 2011). Poverty and frustrated upward mobility, especially in less developed countries (LDCs), plays an undeniable role in the participation of individuals in political violence. Dalton and Asal (2011) found that higher education is positively correlated with female participation in terrorism; while increased social rights of women are negatively correlated with female participation in violent terrorist attacks. Increased education as a driving force behind participation in violent acts of terrorism problematizes the belief that male counterparts often coerce women into violence. More educated individuals are also more likely to be wealthy, and again demonstrates that economics cannot be overlooked or overstated in its importance as a factor predicting violent political activity.

When describing the role of women in terrorism, women are often relegated to support roles by academics, which is problematic for several reasons. This disregards the historical
evidence of female participation in extremely diverse roles within violent political organizations (Cunningham 2003). It also ignores the increasing participation of women in suicide attacks for secular and religious causes (Davis 2013). The Tamil Tigers were the first to use female suicide bombers in significant numbers; however, religious- particularly Islamist- groups have dramatically increased their use of female suicide bombers in the last fifteen years as well (Davis 2013). Finally, men in support roles are considered soldiers or combatants without hesitation; however, women participating in support roles are often seen as lesser, non-active participants (Vogel, et. al. 2014). Further, this undermines the importance of support to the survival of an organization.

More women are committing suicide attacks, and more women are participating in acts of violence on behalf of a religious terrorist organization. With very few exceptions, religion plays an important role in dictating patriarchal gender norms. Thus religious groups that sanction female violence depart from the doctrine and ideology that determines the nature of the group. Islam and Christianity are characterized by a strict dichotomy of the sexes. Yet within societies where these religions dominate, particularly in Islam, radical fundamentalist groups actively recruit and deploy women in violent acts. How do these religious-fundamentalist groups justify their departure from the traditional social roles that relegate women to the private non-violent arena?

Terrorist organizations depend on public support for their survival. They need a constant supply of new recruits (especially those organizations that frequently use suicide bombing), as well as support from the local populations who can provide housing, food, and other supplies (Sanchez-Cuenca 2007). Terrorist groups depend on popular support for legitimacy as well. If a terrorist organization loses a significant amount of public support they are likely to be easily arrested and their activities thwarted (Sanchez-Cuenca 2007). For example, radical Islamist groups believe that society as a whole has entered a state of takfīr, or non-belief, thus justifying the use of violence against civilians. However, even these groups must moderate somewhat in order to maintain popular support. This is evidenced by the failure of Gamaa al Islamiyya in Egypt. After losing significant popular support by accidentally
killing a 12-year-old girl, the organization was forced to negotiate a cease-fire (Brooke 2008). Fundamentalist-religious terrorist organizations risk losing popular support by putting women on the front lines of battle, especially if this decision seems purely tactical— as it often is. These organizations rely on a shared set of strict beliefs to shape their worldview and generate action within their members, suddenly altering or shifting these beliefs could make the groups seem inconsistent or incoherent, and thus lose essential popular support.

Ness (2005) describes the mechanisms utilized by conservative terrorist organizations for legitimizing the use of women in nontraditional violent roles. First, these groups deviate from traditional gender roles under the premise that they do not advocate for the revision of these norms under normal circumstance. Essentially, desperate times call for desperate measures. Only serious warfare for an essential cause can justify this change. The traditional understanding of gender roles in normal times is left intact. In every other way these women were expected to still maintain their traditional femininity. They only stepped outside of their role because it was desperately needed and purely situational.

Second, terrorist groups based on religious extremism create a historical myth around the women participating in violence. For example, female suicide bombing is justified by “acts of female jihad” during the time of the Prophet Muhammad (Ness 2005). The violence and the flagrance of gender roles are put in a historical context. It is seen as a continuation of history and tradition. Ness (2005) points out that while the historical narrative may not be necessarily accurate, its power lies in the collective identity it exploits. Lastly, these groups elevate the female militant to a status transcendent of her femininity. She becomes so awe-inspiring that her lesser status due to her femininity is situated in the background. Her beauty or brilliance or piety becomes an ideal that other women hope to achieve. The group elevates the female suicide bomber and also takes steps to reinforce her femininity in other realms.

It is also important to note that religious groups suggest similar gendered motivations for female participation in acts of
violence. For instance, Wafa Idris, the first female suicide bomber in the name of the Palestinian cause, was divorced and unable to have children (Ness 2005). Thus the narrative describes her as redeeming herself through sacrifice for society, since she can no longer contribute to society in the traditional ways—by having kids and taking care of them and a husband. This is much more palatable for a traditional society than the notion that Wafa Idris was so passionate about the Palestinian occupation that she would blow herself up only for that. However, these constructed justifications contradict themselves. One of the eight female Palestinian suicide missions was by a woman who was the mother of two young children. Palestinians voiced disapproval. Her selflessness for the cause was diminished by the fact that two children were left behind without a mother. Ness (2005) notes that female suicide bombers in traditional societies must be selected with their acceptability to the public in mind.

Why then, when it causes such a public relations dilemma, do religious terrorist groups recruit women for their missions? The answer is somewhat paradoxical. Under pressure, terrorist groups use the stereotype of a terrorist (male and young) to their advantage (Cunningham 2003). By using a woman as a suicide bomber or in other violent missions, terrorists often suffer less scrutiny and have more success (Dalton and Asal 2011; Cunningham 2003; Malvern and Koureas 2014). Essentially, terrorist organizations recognize the traditional gender norms, flout them for success in a mission, and then reinforce them through framing for public opinion. Malvern and Koureas (2014) also note that the female anatomy, due to the ability to get pregnant, can also work in terrorists favor. A fake pregnancy can easily disguise bombs and other weaponry. In conservative Islamic societies, a burqa, which is meant to disguise a woman’s body, can hide bumps due to bombs as well as boobs. Davis (2013) states that female suicide bombers are marginally more lethal than male suicide bombers. This is perhaps owed to the perception that women are not combatants. Thus, they have a higher chance of surprise and lower chance of detection.

Dearing (2010) looks at why women are conspicuously absent from terrorist activities in Afghanistan. He lays out three
specific reasons. First, there is no shortage of recruits or lack of room to maneuver for the Taliban in Afghanistan. That is, there is not significant pressure on the organization. Second, the fiercely conservative culture of the Taliban limits female participation and third, the lack of historical precedent for female martyrdom. These reasons for a lack of participation provide insight into the groups in which women are used in terrorist acts. As stated above, the second factor in the Taliban’s lack of female operatives— the conservative culture—persists throughout religious-fundamentalist terrorist groups. Thus, the other two factors must be able to override this conservatism. In particular, it seems that external pressure on the organizations operational capabilities likely has the greatest impact. In the example of female Palestinian suicide bombers, the state of Israel has an extremely heightened security apparatus that severely restricts Palestinian terrorist operations, which exerts significant pressure on the terrorist organizations in Palestine to innovate new mechanisms for avoiding detection and deterrence. Cunningham describes this as an important factor for the inclusion of women in terrorist operations as well (2003). Dalton and Asal (2011) positively correlate the age and size of a terrorist organization with the likelihood of female participation in violence. They suggest that this could be due to increased pressure as the group ages, as well as increased resources available for diverse recruitment and the necessity of tactical innovation.

Besides the tactical advantages that female operatives provide terrorist organizations, women committing acts of violence get more publicity. Terrorist actions are transgressive in nature and suicide bombing especially violates expected norms of behavior. Thus female terrorism is a “double act of transgression” by breaking traditional gender norms as well (Malvern and Koureas 2014). It makes sense then that a terrorist act generates a significant amount of publicity, and an act of terrorism by a woman nearly doubles that amount of publicity (Conway and McInerney 2012). For example, the suicide bombing of Wafa Idris generated a firestorm of publicity. In the introduction, the case of JihadJane was described. Conway and McInerney (2012) studied JihadJane’s portrayal in the US press, and found that not only was she portrayed significantly more in the media than comparable
male terrorists, she was portrayed significantly differently as well. The media plays into the shock of a female terrorist by giving it more airtime (or inches). At the same time, the media reinforces the traditional gender norms associated with political violence (especially religious extremist terrorism) by framing the female terrorist very differently than the male. The framing of the female terrorist focuses on appearance, family connections, love as a motivation, women’s liberation or gender equality, toughness in reference to male toughness, and the mental state of the woman (Conway and McInerney 2012). These characteristics of portrayal are used much less frequently when male terrorists are in the media. Overall, terrorist organizations seek publicity for their acts in order to instill fear in a wider audience to achieve their aims. Women as terrorists seem to have more success in gaining publicity (Cunningham 2003). It seems that this success will last as long as the media and right-wing terrorist organizations themselves play into the idea that female combatants are a novelty.

Female participation in political violence, despite still being viewed as unusual or unnatural, has existed for centuries. What is somewhat novel is the participation of women in fundamentalist-religious terrorism. This is a subset of terrorism whose ideology is rooted in patriarchy and the return to a more traditional society, thus is less likely than left-wing groups to attract women and include them in leadership and combat roles, although this is changing. Women are used in fundamentalist-religious terrorist actions despite the difficulty of shifting a fundamentalist-religious ideology to accommodate them because of their strategic advantage, the necessity for tactical innovation, the necessity to utilize more participants, and the publicity that female terrorists receive. Women desire to participate in religious terrorism for many of the same reasons as males, excepting a feeling of frustrated dominance. Women are and will continue to be extremely effective participants in the religious extremist fight as long as security forces, the media, terrorist organizations, and society in general continue to perpetrate traditional gender stereotypes.
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Social Media and Patient Confidentiality in Nursing

Dixie L. Cook

Social media in particular, and technology in general, has created a multitude of resources that have advanced the nursing profession in a positive direction. Social media is constantly changing and expanding, but it can generally be defined as “Internet-based tools that allow individuals and communities to gather and communicate and to share information, ideas, personal messages, images, and other content” (Ventola, 2014, p. 491). Social media offers nurses many opportunities for networking, education, and remaining informed of current healthcare events and advances. However, despite the numerous benefits, the rapid development and expansion of social media has not been without issues.

In many ways, social media has progressed faster than laws and policies can keep up. For example, from 2005-2014, the amount of adults using social media grew from 8% to 72%, and, in 2012, the number of Facebook users equaled one-seventh of the world’s population (Ventola, 2014). Furthermore, searching for healthcare information was the third most popular use of the Internet, and one in three Americans looked up information about their condition online (Lachman, 2013). Despite millions of users, including nurses and other healthcare professionals, guidelines about social media were only recently produced. In 2011, the American Nurses Association (ANA) published ANA’s Principles for Social Networking and the Nurse (ANA, 2011). Also in 2011, the National Council of State Boards of Nursing (NCSBN) published the White Paper: A Nurse’s Guide to the Use of Social Media (NCSBN, 2011). One particular concern that social media poses is the ability to maintain patient privacy.

Assessment
At this time, social media is everywhere, and it is second nature for people to post pictures or thoughts about a meaningful experience. It is a common misconception that social media accounts are private, despite often having an audience of thousands of “friends.” Instead of telling one person something, a post on social media can reach millions in a matter of seconds. With little effort, posts can be found by others and take on a life of their own. Although most do not intend to harm others with social media posts, they are often unaware of the consequences until it is too late. While attending a safety education course before a labor and delivery clinical rotation, I was told a moving story. The instructor gave an example of a nursing student that had been attending a clinical in a rural hospital. She had a great experience caring for a newborn baby, and decided to take a picture with him before leaving her shift. Out of pure excitement, she posted the picture on her Facebook page, and raved to her friends about how great her day was caring for the cute little baby. Although there were no identifying labels placed on the patient, it was relatively easy to figure out who he was based on the hospital and it being located in a small town. The nursing school ended up finding out about the post, and the student was found to be in violation of patient confidentiality. Although she had no malicious intentions, she was expelled from the program and no longer able to continue her nursing journey. It was eye opening to hear this story, because I had never thought about the extreme consequences that social media posts could have on my future career in nursing. I was obviously aware not to post malicious remarks or inappropriate behavior that would make one look bad to potential educators and employers, but I had not realized how posting a positive comment about a great day could breach patient confidentiality and land you in trouble.

The Quality and Safety Education for Nurses (QSEN) project has identified six core competencies that should be addressed in pre-licensure nursing programs, including patient-centered care, teamwork and collaboration, evidence-based practice, quality improvement, safety, and informatics (Yoder-Wise, 2015). Patient confidentiality, a fundamental principle that nursing is built upon, falls under the QSEN core competency of
patient-centered care (Yoder-Wise, 2015). Establishing trust is the foundation of the nurse-patient relationship. Violation of confidentiality, such as through social media posting, can degrade this relationship, preventing quality care when the patient no longer feels comfortable sharing pertinent information (Henderson & Dahnke, 2015).

With the emergence of smart phones, ever expanding technology in the healthcare setting, and more social media platforms than one can count, it is no wonder that guidelines and regulations have been slow to catch up. The Health Insurance Portability and Accountability Act (HIPPA) Privacy Rule of 2003 is something that all healthcare professionals should be aware of, and outlines the guidelines for protecting patient information, whether it be in written, spoken, or electronic form (Lachman, 2013). A patient must either provide consent to share his or her information, or patient information must be “de-identified” (Lachman, 2013). Unfortunately, it is with this de-identification process where problems arise. For example, the Safe Harbor Method of De-Identification provides 18 identifiers that must be removed in order for patient information to be safe (Henderson & Dahnke, 2015). Therefore, protecting patient information on social media is more of a challenge than most nurses may think. A study of 271 medical blogs written by health professionals found that 42% of the blogs described patient information (Chretien & Kind, 2013). Of those, 17% provided enough information to identify the providers or patients, and 3 even included recognizable patient photos (Chretien & Kind, 2013). A 2010 survey of 46 boards of nursing conducted by the National Council of State Boards of Nursing found that 72% of them had received complaints of nurses violating patient confidentiality by posting photos or patient information on social media accounts. It is evident that, although guidelines exist and are being developed, they are not adequate to cut down on patient confidentiality breaches through social media.

Planning
A literature review was conducted using the EBSCO host databases. Key words used in the search were social media, patient confidentiality, registered nurses, and healthcare. Additional key words that were discovered during the search include ethics, privacy, professionalism, and communication. A limitation was set to include only articles published in nursing journals within the last five years. Several articles were discovered that met these standards. The following literature review is an exploration of current suggestions for maintaining patient confidentiality despite the use of social media.

One common factor that arose when researching patient confidentiality in relation to social media was the proper “de-identification” of patient information, as stated in the HIPAA Privacy Rule of 2003 (Chretien & Kind, 2013). When medical educators were questioned about inappropriate use of social media, 61% stated that discussing patient situations on social media was never or rarely acceptable, even when the information is de-identified (Chretien & Kind, 2013). However, Chretien and Kind (2013) believe that, if certain identifying markers are removed, including “omitting or changing key patient details, avoiding description of rare medical problems, and not including a specific time frame or location when and where the encounter occurred,” then writing about patients on social media can be ethically justified (p. 1416). Similarly, Lachman (2013) states that in order to de-identify patient information, nurses must not include patient nicknames, room numbers, diagnoses, or conditions. However, one concern with demanding that patient information must be de-identified is that this process can be harder than one might think. Many factors, such as a small town or a rare condition, can make a patient more identifiable despite using the same de-identification tactics.

Another factor that may contribute to protecting patient confidentiality while using social media is developing a standardized set of questions one could ask before making a post. Denecke et al. (2015) pointed out that, due to the vast and ever changing nature of social media, it would be impossible to create guidelines that would apply to every scenario encountered. Instead, they propose a universal model for systematically
evaluating a particular situation before making a post on the Internet (Denecke et al., 2015). The answers would help nurses and other healthcare providers judge the ethical issues before making a potential breach in patient confidentiality. Stevenson and Peck (2011) have created such a model that takes into consideration doing good and avoiding harm, the person’s intent, and the foreseen and unforeseen consequences of the post. Based on these parameters, one must ask three questions before posting patient information on social media. However, one concern over using a model of questions for debating a social media post is that, much like debating other ethical issues, the answer to these questions may be debated, and are often subjective.

A third factor that may help protect patient confidentiality despite the use of social media is for employers, educators, and regulatory bodies to establish policies for the use of social media among healthcare providers. Many authors suggest adapting the guidelines proposed in the ANA’s Principles for Social Networking and the Nurse (2011) and the White Paper: A Nurse’s Guide to the Use of Social Media (2011) in order to create their own policies for their nurses (Cronquist & Spector, 2011; Ventola, 2014). These standardized guidelines lay out a rather abstinence based approach, such as do not take a photo of a patient and do not post identifiable patient information (ANA, 2011; NCSBN, 2011). These standardized policies also allow employers, educators, and boards of nursing to create consequences for breaching patient confidentiality in social media. However, all or nothing approaches tend to be hard for people to follow, and there are many grey areas when it comes to social media. Despite these guidelines being in place since 2011, boards of nursing have continually received more and more complaints of breaches in patient confidentiality through social media posts (NCSBN, 2011). It is likely not enough to tell nurses what not to do without giving them the tools to make this a reality in day-to-day life in the digital age.

**Interventions**

Based on this literature review, patient confidentiality in social media is a multifaceted problem that occurs across all health care settings. Since breaches can significantly disrupt the quality
of nursing care, it is important to develop measures to prevent and manage the incidences. Arguably, the most important measure to maintain patient confidentiality despite the use of social media would be to implement prevention education in nursing pre-licensure programs. Patient confidentiality is a fundamental principle taught from day one of nursing school. However, most information is based on documenting and maintaining this confidentiality within the professional sphere, and not in the nurse’s personal life at home. In my experience, I have seen countless social media posts about difficult patients in the hospital or great days that made a difference. Knowing the hospitals and units these people work in, it would take little effort to identify some of these patients, and then patient confidentiality would be lost. Education in schools needs to focus on the discoverability and permanence of social media posts, and the consequences despite great intentions. The majority of disciplinary actions by boards of nursing are against nurses that did not intend harm (NCSBN, 2011). This education would need to include quizzes to test nursing students’ comprehension. It would also be helpful to include open discussions in order to consider personal experiences and brainstorm solutions. In this way, new nurses would be armed with the tools to make smart decisions about social media when entering their professional career.

Another intervention to maintain patient confidentiality in the world of social media is to implement extensive education in the professional setting. The first part of orientation to any new job in nursing includes going over and learning facility wide policies and regulations. It would be important during this time to go over guidelines on use of social media so that nurses could be clear about expectations and consequences. During this time, it would be helpful for the educators to provide examples of occurrences in the facility and consequences that ensued. This way, the stories would be relatable and not just a scenario of something that would never happen to them. Educators could also provide resources to new employees and allow time for questions and discussion. If new employees are aware of the policies and consequences, they will be less likely to make a mistake in social media posting. They can learn from past fellow employees in
order to prevent the same thing from happening again. Furthermore, it will open up the discussion and allow new employees to feel comfortable discussing the matter with their managers if they ever have a situation of their own.

A final suggestion for an intervention to maintain patient confidentiality in social media is to implement a social media committee within facilities. Although the first two interventions focus on primary prevention, a committee could handle secondary and tertiary prevention as well. This committee could function much like an ethics committee, including an interdisciplinary team of nurses and other healthcare professionals. Since social media and Internet concerns are so numerous, this committee could be immersed and educated in the policies, resources, and consequences of using social media as a healthcare professional. They could be in charge of the education offered to employees, screening for issues within the facility, and handling complaints. This would provide a resource for employees to discuss issues and report instances that they have witnessed. Over time, social media will continue to evolve, and it will be a challenge to remain updated and informed. Policies and guidelines that nurses learn in school and facility orientation will not withstand the test of time, and within a few years may be obsolete. The social media committee could offer continuing education within the facility and be in charge of developing and implementing new policies.

**Evaluation**

In order to be successful in implementing social media interventions to protect patient confidentiality, one must also consider the evaluation stage to make sure they are working. The social media committees could play a role in evaluation, as they could survey employees’ opinions on the effectiveness of education and monitor the number of complaints received. The main way success would be measured is to collaborate with boards of nursing and keep track of the amount of reports and disciplinary actions they are handling for breaches in patient confidentiality related to social media. If interventions are successful, one would expect these reports to significantly decline. If a decline is not
evident, more research would be needed to develop effective, evidence-based interventions that can be successful.

As stated by Prasad (2013), “social media is where the future is, and more importantly, that’s where our patients are going to be.” Social media, when used properly, can be an invaluable tool for public health and patient education, as well as collaboration among healthcare professionals. By implementing comprehensive social media interventions to protect patient confidentiality, nurses can be proactive leaders in quality, patient-centered care.
References


Heuristic Learning: The Nature of Knowledge 0-3

Hope Wiggs

Heuristic learning shows the, often passed over, intelligence of young children. It proves they can be imaginative, and have long attention spans, if given the proper environment. Heuristic learning is not well known, although coined by Elinor Goldschmied and Sonia Jackson in their book, *People under Three* in 1994. Heuristic learning can open up an entirely new and effective approach for adults to use in childcare centers, schools, and at home. Heuristic learning needs to be further studied and expressed to early childhood educators to help the children of today.

I began learning about heuristic learning in my human development class. As a result of that experience I created a treasure basket. A treasure basket is a basket filled with safe, natural, developmentally appropriate materials for a child 6 months to three years old to explore. Then I observed my six-month old neighbor play with it. He played with it for almost an hour. His mother and I were in wonder at his concentration and curiosity as he went through the basket. His mother made the comment, “He has never focused on one thing for so long!” She, like many parents, had never heard of heuristic learning or treasure baskets, but was open to this new approach. This encounter sparked my interest even further in heuristic learning as a subject that needs to be incorporated into curriculum and everyday practices with young children. As my interest grew I read many books and articles to prepare for this research study.

**Review of Literature**

Daly and Beloglovsky in Loose *Parts: Inspiring Play in Young Children* represents exactly what this study is working to demonstrate. Each chapter and page show how children can thrive and learn in a non-structured environment. It encourages creativity
in children and educators like few books do today. This book defies the cultural belief that if something is old or broken, but still safe, children will not appreciate it. *Loose Parts* helped me collect ideas and inspired me while preparing for this research. Goldschmied in *People Under Three* is exploring the same ideas our research discovered. Goldschmied has an entire chapter on heuristic play with children. It also gives detailed instructions on how to build an effective treasure basket. In addition, it explains what the role of an adult should be in heuristic play sessions.

Another insightful book was, *Serious Players in the Primary Classroom: Empowering Children through Active Learning Experiences* by Wassermann. While this book is targeting primary school aged children it also has many relevant points pertaining to our research. It addresses the problem of adults thinking they must do everything for children because they perceive the young children as incapable. It also combats the myth that young children have short attention spans. Further it explains children often seem uninterested when they are being forced to do something, but not, when creatively playing and learning.

Treasure baskets are a key component of this approach to learning. Another article I found exploring this concept was by RNIB, Royal National Institute of Blind People. This article gives a wonderful overview of treasure baskets. They also demonstrate how they can be used for special populations, such as children with sight problems because they offer other sensory experiences besides seeing (RNIB). All of these books supported and assisted in our research and results.

**Research Question**

This phenomenological research aims to answer the questions, “What is the lived experience of the children in the classroom?” and “What is the impact of the heuristic learning lessons on the caregivers understanding of the child?” Through these questions we hoped to be able to demonstrate a young child’s mental process to his caregivers. Therefore, it could serve to transform the understanding of childcare teachers and positively improve their curriculum planning.
Our current study observed heuristic learning of infants and toddlers examining its impact on the teacher and planned curriculum when implemented in a childcare center. Our mixed-methods design incorporated both a hermeneutic phenomenological approach and quantitative data. Hermeneutic phenomenology seeks to understand and interpret the lived experience of those being studied.

Three points of data were triangulated, searching for consistent and unique themes. The primary source of data were teachers of infants and toddlers, located through a “snowball” approach in which administrators are contacted and asked to recommend teachers, who then were asked to recommend other teachers. Researchers informally interviewed the teachers. The researchers directly observed heuristic learning activities at least twice in each classroom. Finally, a reflective questionnaire was given to the teachers using a Likert-like scale through Survey Monkey to gather final thoughts. Teachers wondered, “Why aren’t classrooms using this instructional approach?”

We observed children ages 6 months to 3 years. Each observation lasted from 45 minutes to an hour, depending on how the students were doing during the session. We had materials for 18 different stations, which we interchanged throughout the observation, not all stations were present at each observation. The stations were different types of items for the children to explore. For example, one station was strings of pearls, while another had metal spoons and measuring cups. The stations were set out in different parts of the room, but children did not have to keep the items within the specified space of each station. We discovered that we needed to limit the stations to reduce the clutter in the room and therefore increase the safety and comfort for the children.

The stations included materials the children could manipulate like: beads, pinecones, metal measuring cups, wooden spoons, wooden blocks, bracelets and a mug tree, old remotes, hair curlers, pvc pipes, seashells, metal pans, baskets, scarves, zipper bags, sea sponges, pot rests, spare parts in a toolbox and golf balls. The purpose of this study is to inform and explain heuristic
learning. Then to utilize the insights gained to be able to transform how parents and teachers think about the knowledge of children 0-3 years of age.

During the first observation we did not take notes because we wanted to be present with the children. We simply observed intending to notice the children’s behavior and then take notes after each observation session. This made it hard to remember everything that had happened, rather than the activities at the end. I then began the process of taking note of everything, which was a bit excessive and distracting from the actual observing. By the end I was taking notes periodically. I recorded what was happening during the observation every few minutes. This illustrates that qualitative research evolves during the process. Qualitative Research, has a non-linear nature, so observations were essential. As the researcher, I was the instrument measuring different results and outcomes.

**Making Decisions**

The children observed were ages 0-3, attending childcare during the month of June, one at an extended day and one at a part day part week center. The researchers were an undergraduate student and a professor. This gives us two perspectives to pull from when analyzing data. The focus of our observation was how the students interact with the new materials we provide, but also looking at how the students interact with each other and their teacher. The observation took place in the students’ usual classroom setting, but their usual toys were put to the side and our materials were set out. Ten classrooms at the two different childcare centers were observed to get a variety of data. We administered a survey before and after the study to all of the teachers in the classrooms observed. We conducted an interview with both directors at the conclusion of the study. We recorded observations of the classrooms as we observed each day.

After concluding the observation portion it was time to sift through all of the data and find emergent themes. Certain stations stood out as popular with every age group, while some seemed popular with certain ages. The strings of beads were popular with every age group, but not used the same way within each classroom.
The younger students loved to put the strings of beads in their mouths. The children one and younger loved to suck and chew on the objects, but while observing the two year olds the children were no longer relying on their oral sense to discover new objects.

The older ones used the beads in a variety of ways. Many of the older male and female students put the beads on as necklaces. Students also put the beads in zipper bags to carry around. Other students picked the beads up and dropped them and squealed with joy when they made a loud sound when hitting the ground. The beads were stirred in metal pans also making a loud pleasing noise. Other students also hung the beads on the mug tree. The beads were moved and intermingled with objects from other stations. This single station shows the wide range of ideas children can explore, if given a time to simply test their ideas, and further their cognitive development in their own time.

While the younger children used oral sensation as the major form of exploration the older children were developing a new skill to express their new findings, speech. The older children loved expressing their new findings using their words. Many of the objects were new and vocabulary was not always known. Some children called the pinecones, pineapples. Others could describe the object by its function, but not its actual name. One girl called a remote control a "commercial" and pointed it at a pretend TV, while saying, “There now it’s better.” While the point of heuristic learning is not language development it does give children a time to freely practice their speech with new objects.

Hair curlers were also a very popular item. The students found a plethora of ways to use them. They would put them together to make “monsters” and a “plane” and “sticks”. Some carefully put them on the mug tree, while some haphazardly threw out the entire basket. Teachers and parents can learn about a child’s personality by simply sitting back and watching a child play. The babies really enjoyed mouthing on the curlers to explore their unusual texture. We observed one child stop playing when directly questioned by the teacher, “What did you make?” There is amazing variety in what children can use an item for, when not constantly given strict guidelines on how an item must be used.
Young children were also sorting and organizing items. They are growing the seeds of mathematics in a fun free environment without being pressured. One child took wood pieces out of a basket, one by one, and then put them back in, organizing similar pieces together. Another child organized bracelets by shape and color. Children show impressive competence when given the time and freedom to sort and explore without adult hindrance.

There were themes we found to be consistent throughout the ages and classes. All children displayed creative new ideas for the materials. This was especially prevalent in the two and three-year-old classrooms. For example, one child created a “dinosaur” by putting together different sized hair curlers. All children seemed to gravitate to familiar and natural items. All of the classes liked exploring the pinecones and sea sponges. Many students also displayed problem-solving characteristics. The younger students did this through exploring cause and effect, while the older children showed knowledge in categorizing and beginning math concepts.

There were also themes we saw that were unique to only some children. A few children wanted to play with familiar toys that were in their classroom all the time. Other students wanted to use the items, but in a less crowded part of the room away from others. A few other students wanted to explore the materials, but only in the comfort of a caretaker’s lap. These themes were unique to a small portion of the children observed.

**Limitations**

While this research has many positive findings it is not without its limitations. It is a relatively small sample size, which limits generalizing this study to other populations. The sample was also mostly Caucasian children. This makes it more difficult to generalize across ethnic groups who may have different cultures. A third limitation to this study is that it was only one month of observation. A longer time would give the children more time to adjust to the outside observers and the new creative freedom.

**Glossary**
**Heuristic:** “to discover or learn by trial and error” (Wilhelm)

**Treasure basket:** a compilation of common, non-plastic, infant safe items in a basket, chosen to stimulate a young child’s senses. (RNIB)

**Phenomenological research:** the study of phenomena highlighting persons lived experience (Kafle)

**Qualitative research:** Research that focuses on the importance of looking at variables in the ordinary setting in which they are found, in this case children in a classroom.

**Recursive:** research that uses repetition and previous knowledge to come to new conclusions in a study.

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**Works Cited**


Prions: Understanding Proteins Role in Neurodegenerative Diseases

Angela Clifton

Abstract

Neurodegenerative diseases have long been a curiosity for scientists. Prions have been discovered as the primary means for causing such diseases and are now widely accepted. It is known that both infectious and inherited NGDs are caused by the malformation of cellular proteins. Understanding their transformation mechanisms, neurotoxicity, and health implications have led to huge discoveries in how to treat such illnesses. Each of these topics is unpacked and looked at further, referencing original scientific literature. Mechanisms include both a seed/cofactor mechanism and a sporadic mechanism. Neurotoxicity has determined to be caused by a buildup of the prions due to their adhering qualities, and health implications are looked at in terms of balance between molecules present in each host specimen.

The central nervous system and peripheral nervous system are complex and obscure components of physiology. Understanding their normal functions and mechanisms can be challenging enough. As diseases that degrade these systems are becoming more prominent though, investigation of the deviant mechanisms is crucial for full understanding of neural health. It was discovered by researcher Stanley Prusiner in 1997 that the malformation of certain proteins could be causing neurodegenerative diseases (NGD). These malformed proteins are referred to as prions and are at the forefront of the majority of the neurological disease research of today. However, as prions have been explored further, it has also come to light that a lack of function from the cells that derive prions could also be contributing to the diseases. The discovery, formation, and effects of prions will
be investigated through research that has been conducted using various mammals as models. Also, alterations of normal mechanisms caused by prions will be examined by observing which pathways are changed in diseased cases. A deeper comprehension of what roles prions play in different forms of neurodegenerative diseases is a key aspect in helping one deduce what the best methods for combating such diseases may be.

Stanley Prusiner coined the term “prions” in his first writing of significance published in the journal *Science* in the year 1982. The research was a huge breakthrough because up until this point, proteins had never been considered a transmissible agent for disease. He performed his work on the scrapie agent, which is a molecule known to cause brain damage in animals. With another astonishing unearthing he managed to identify a protein in healthy brains that appeared to be identical to the scrapie causing prion. This new mechanism of disease was actually rejected by the majority of scientists, who claimed that Prusiner was simply missing a viral component of the microbe.

However, once the normal analogous protein was found, there was no denying the breakthrough. Shortly after, it was identified that the scrapie prion protein (PrPsc) is actually a derivative of the “normal” cellular prion protein (PrPc). The PrPsc is the same agent present in Bovine Spongiform Encephalopathies (Mad Cow Disease) and the human form of Creutzfeldt-Jakob disease (CJD). All mammals contain PrPc and synthesize it like any other regularly produced protein. By some still somewhat unclear events though, the protein changes shape making the infectious particle an isoform of the standard common animal protein. This means that the host cells themselves are responsible for their own deterioration and eventually the entire organism’s death. This concept is the central jumping off point for research on this topic. (Prusiner 1997)

An interesting archetype about the converted isoform (PrPsc) is that it does not actually contain pathogen-encoded nucleic acids (like viruses do). How then are they known to be infectious? Koch’s postulates (Fig. 1) were applied to prions and discovered that in the form listed they are indeed transmissible, disease causing microbes. They are present in the specific group of
NGD cases called transmissible spongiform encephalopathies or TSEs, which are a fatal class (and include the scrapies of sheep and mice, bovine spongiform encephalopathy, and CJD discussed earlier). When harvested from these TSE animals, prions then have the ability to grow in a pure culture and cause the same diseases when inoculated into healthy animals. Lastly, to follow Koch’s postulates and be considered infectious, the prions must have the ability to be re-cultivated in an identical form to the original, and indeed this is possible.

Prusiner (1998) and Pradines et al (2013) conducted research in an attempt to deduce exactly why the conversion of PrPc to PrPsc causes toxicity. Continuing to look at scrapies in goats, it was observed that large amyloid deposits (which are simply abnormal aggregates of a substance) form in the brain of diseased specimens. Prusiner (1998) confirmed the amyloids to be of PrPsc. According to the Pradines et al (2013) research, these deposits are due to the fact that prions trigger an increase in A-beta folding levels, which renders the proteins to adhere to one another and form clumps. Because of the increased number of helical beta sheets, various forms of tissue deficits occur (Fig 2). The deposits may be small and soluble at first, but as accumulation of molecules ensues, they gain a strong affinity for binding to the receptors on nerve cells. This induces the erosion of synapses. The buildup of anything in the body also has other general factors, such as the fact that cells are hindered from obtaining oxygen and nutrients.

Interestingly, amyloids are also observed in the non-contagious but inheritable human diseases of Alzheimer’s and Parkinson’s. These plaques are made of tau proteins and cause the degradation of neural cells as well. Prusiner (2014) examined similarities between the tau protein and PrPsc to determine if there was a relation to the variations of NGDs and if the presence of PrPsc has an effect on the tauopathies. It was published in his review paper “Biology and Genetics of Prions Causing Neurodegeneration” that patterns of tau protein accumulation produce different phenotypes of diseases and that it is indeed altering forms of the original protein in each illness. This indicates that a type of prion causes the toxicity of heritable NGDs as well (Fig 2). This explains why the typical appearance of brains with
TSEs and heritable NDGs look very similar, as they are now confirmed through research to be of similar origins. (Table 1) lists other diseases and their corresponding prions.

Noble et al (2015) has shed a small amount of light on how PrPc can spontaneously change conformations into its infectious counterpart. Now that it is known that there are acquired and inherited types of prions, both must be examined for full insight into how they work. This complicates the mechanism to a great extent. Noble et al (2015) used wild-type (WT) PrP to indicate the origin of infectious prion formation and mutant PrP to label inherited prion origins. For the WT, it was discovered that a cofactor and seed-facilitated mechanism are responsible for the shape change, but the mutant type can misfold directly and bypass these mechanisms (Fig. 3). This is suspected to be due to the fact that the genetic mutant prion is less stable than the WT. However, the wild type PrP antagonizes the mutant from changing conformations, depending on dosage applied. Alternatively, the cofactor not only increases WT PrP misfolding, but it also relieves the inhibition that WT has on mutant misfiling. This creates a cascade effect once these mechanisms are underway. It would then be plausible to deduce that the amount of certain substances in one’s body can determine the severity that a disease will be displayed. Noble et al (2015) noted that maintaining balance then becomes the key to health. If WT is in the body but not many cofactors and/or seeds are present, their effect will not be very evident, as they will not conform into their infectious prion very often. Also, the spontaneous conversion of the mutant PrP will be less likely. If the seed and cofactors are both present in abundance however, the WT is more susceptible to transforming into its neurotoxic form, also allowing the mutant to convert more frequently as well. The interplay of these molecules influences to what degree the nervous cells are affected.

This has the implication that for infectious diseases to appear, there must be some exposure to “pre-existing infectious prions”. They cannot occur sporadically, but must be by some ingestion, inoculation, or other exposure. Alternatively, inherited prion diseases can still occur spontaneously and with a higher
penetrance if the host encodes specifically for the mutant PrP allele.

Since PrPsc was discovered, it has taken the spotlight in the research of NDG, but just recently, a new approach was added to the quest. The normal functions of PrPc are now being considered as an alternative route to the symptoms seen in such neurological illnesses. Pradines et al (2013) concluded that a wide variety of mechanisms are actually interfered when the original PrPc does not function as normal. We already know that prions cause a rise in A-beta plaques, which causes the “toxicity” to the animal. However, prion infection also causes the regulation of signaling targets that are normally coupled to PrPc to change. One specific enzyme is the matrix metalloprotease, which catalyzes the degradation of the amyloid proteins. Since PrPc is unavailable, this enzymatic pathway is incomplete, and the clearance of the a-beta proteins are impaired and allowed to aggregate. To strengthen this point, the researchers also found that this is true for both in vitro and in vivo situations. Many other possible PrPc hindrances are still under study to identify if they lead to disease causing mechanism as well and include: a reactive-oxygen generating enzyme, NADPH oxidase, transcription factors of CREB, and the effects of matric remodeling (digging deeper into the matrix metalloprotease protein). This abundance of possibilities further clarifies that PrPsc also employs its neurotoxicity through the corruption of PrPc normal function.

Prusiner (2014) also reports numerous factors that may increase the risk for attaining or inheriting all types of NGDs (Table 2). Age is the biggest hitch. It is known that the body wears down and as this transpires mechanisms become less efficient. This vindicates why gene mutations come out later in life and why spontaneous conversion of prions begins to emerge. Also the body’s immune system is not as capable to fight off infectious diseases. Abuse of alcohol and drugs can cause these problems to generate earlier in life, and also create stress on the body that again suppressed the immune system. Other acute entities include temperature of inoculation, change in the optimal pH for such mechanisms, and concentration of molecules.
In conclusion, the exposure of proteins having infectious qualities has transformed the way the scientific community looks at certain illnesses. From knowing their role in scrapies and this disease’s various forms, prions have been translated into the human research realm. This is imparting valuable knowledge of how our nervous system works, and what can be done to prevent illnesses from setting in. It is still a fairly new field with many loose ends, and as more information is acquired on the topic, I believe that science will continue to be astounded by proteins and their colossal role in neurodegenerative diseases.

**Koch’s Postulates:**

1. The microorganism must be found in abundance in all organisms suffering from the disease, but should not be found in healthy organisms.

2. The microorganism must be isolated from a diseased organism and grown in pure culture.

3. The cultured microorganism should cause disease when introduced into a healthy organism.

4. The microorganism must be reisolated from the inoculated, diseased experimental host and identified as being identical to the original specific causative agent.

Figure 9 – The microbe of interest in the investigation of an infectious disease is always considered to be a “suspected pathogen” until it has been tested, and has fulfilled the requirements of the four postulates, in order, one through four. Koch’s postulates work so well that they are still the scientific method used in infectious disease research to this day. (Koch’s 2014)
Figure 2- the amyloid fibrils produced by the two-prion synthesizing mechanisms (explained later) are the focus of this figure. Because prions contain an increased number of helical beta sheets they “stick” together and aggregate. This causes various forms of tissue deficits as seen on the right. AB plaques, Tau tangels, and Lewy bodies are all protein aggregates in different phenotypic forms. (Prusiner 2014)
Figure 3- Depicted is a prion propagation system showing the misfolding of the pathogenic PrP mutant D177N in vitro. This mutation causes PrP to misfold spontaneously in the absence of cofactor molecules in a process dependent on time, temperature, pH, and intermittent sonication. Wild-type PrPc inhibits mutant PrPc misfolding in a dose-dependent manner, and cofactor molecules can antagonize this effect. These studies suggest that interaction between mutant PrPc, wild-type PrPc, and other cellular factors may control the rate of PrPc misfolding in inherited prion diseases. (Noble 2013)
<table>
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Table 1- Neurodegenerative diseases caused by prions. (Prusiner 2014)
Table 2: Possible explanations for late-onset neurodegeneration. (Prusiner 2014)

1. Mitochondrial DNA mutations (26, 125)
2. Oxidative modifications of DNA, lipids, or proteins (87, 100)
3. Impaired autophagy (133)
4. Altered apoptosis (201)
5. Posttranslational chemical modification (201)
6. Modified innate immunity (186)
7. Accumulation of exogenous toxins, such as heavy metals, alcohol, drugs, and hormones (19)
8. Concomitant conditions, such as atherosclerosis (96)
9. RNA-DNA differences (107)
10. Chaperone malfunction (111)
11. Somatic mutations (109)
12. Altered regulation of transcription (8)
13. Haploinsufficiency (30, 153)
14. Postinfectious syndromes of the central nervous system, including late polio, subacute sclerosing leukoencephalitis, postencephalitic Parkinson’s disease, and Lyme disease (59, 89, 203)
15. Modifier genes, such as apolipoprotein E and LRRK2 (17, 25)
16. Polyglutamine expansions (101, 196)
17. Dipeptide repeat proteins (127)
18. Cu²⁺ binding to expanded PrP octarepeat region (177)
19. Prion formation and accumulation (134, 146)


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TAKEUCHI, ATSUKO, ATSUSHI KOBAYASHI, JAMES W. IRONSIDE, SHIROU MOHRI, AND TETSUYUKI
The Concept of Freedom: Post-Emancipation Proclamation

How this newly-found freedom fails to remove the veil separating blacks from it

Patience Williams

W. E. B. DuBois’ *The Souls of Black Folk* is first published in 1903: about six decades after the Emancipation Proclamation, and about six decades before the elimination of segregation. On January 1st, 1863, President Lincoln declares “that all persons held as slaves are, and henceforth shall be free” (“Emancipation Proclamation”). However, this newly-found freedom is granted at a cost that is, unfortunately, involving much of the slave. It is also important to speculate what this ‘freedom’ means. It might release a slave from being property, but what about being a slave to the superiority of white men? What about being a slave to the world that has been built without considering black lives to be human lives? In President Lincoln’s speech, he speaks of freedom as though it is an image. Black people can see it, and now that they are allowed to incorporate themselves within it, they are trying to figure out how to get inside of it. In *The Souls of Black Folk*, DuBois alludes this boundary between freedom as a veil.

… I have sketched in swift outline the two worlds within and without the Veil, and thus have come to the central problem of training men for life... Leaving, then, the world of the white man, I have stepped within the Veil, raising it that you may view faintly its deeper recesses, the meaning of its religion, the passion of its human sorrow, and the struggle of its greater souls. (DuBois 3)
Du Bois emphasizes the sacredness of the veil when he mentions having to leave the world of white men to reveal it. This is because the issues of black people are segregated, naturally; although they were caused by the doings of white men, they are not of the concerns of white men. Blacks live in two worlds: one of reality, which is intermingled with the lives of white people, and an inner life, which is much more reflective and emphasized with our own race. To see the pure, raw souls of black lives, one must enter the world of which they dominate and are the most powerful. Only here will one see the more vulnerable and less defensive sides of black people, and only when trusted will more be revealed. Du Bois trusts his readers to believe his words, and not to manipulate them; he speaks as “bone of the bone and flesh of the flesh of them that live within the Veil,” and he does so with justice (Du Bois 4). By analyzing the symbolism of the veil, comparing Washington’s and Douglass’s works with Du Bois’s work, and acknowledging the tone of Du Bois as essential evidence for his claims, one is able to explore the concept of freedom and what it means for black souls.

Beginning with the first chapter of *The Souls of Black Folk*, Du Bois introduces the origin of the veil and how it hinders freedom.

After the Egyptian and Indian, the Greek and Roman, the Teuton and Mongolian, the Negro is a sort of seventh son, born with a veil, and gifted with second-sight in this American world—a world which yields him no true self-consciousness, but only lets him see himself through the revelation of the other world. It is a peculiar sensation, this double-consciousness, this sense of always looking at one’s self through the eyes of others, of measuring one’s soul by the tape of a world that looks on in amused contempt and pity. (Du Bois 8)

Here, Du Bois addresses two concepts: one of a veil, and another of double-consciousness. Firstly, veils are often delicate, transparent coverings that decorate the face; they can be lifted and removed, and are not meant to be worn for long. Du Bois’ choosing of this symbol signifies his belief (and hints at his hope)
that the veil will be taken off, because it is meant to be; however, that is not his aim right here. His aim is to address its existence, whether previously known or not. When he writes of the ‘peculiar sensation’ that the veil brings, he addresses it gently. He does not state that this sensation as an uncomfortable one, and very much undesired; he leaves it up to the reader to decipher what he means by this. Secondly, Du Bois mentions black folks having a ‘second sight.’ It forces people of color to recognize that their world is little recognized and little cared for by the majority of society. Du Bois aims for blacks to recognize that their world and this other world are, in fact, segregated. They also must realize that this second world is attributed entirely to the color of their skin, and there is no escaping their bodies or this inner realization to free themselves from the negativity associated with their appearance that his been looked down upon for centuries. However, Du Bois’ usage of the word ‘gifted’ makes one think that this ‘second-sight’ is a blessing, and not a curse; that, since one is able to distinguish two different worlds within himself, he is able to do better with a broader sense of awareness than most.

In relations to freedom, the above quote gives in to the assumption that this gnawing self-consciousness is an obstacle in the way of freedom. After all, if one allows someone else’s opinion to dominate his own, how is he supposed to know his self-worth so he can progress in the best way for himself? This exploits the haunting truth that black people know that what other people perceive of them—most specifically, white people—is more powerful than anything they perceive of themselves, because whites maintain a greater power. This truth is an imprisonment to black folk, for they cannot escape the dominating perception of how the world sees them; that even if they change, and this perception does not, then this change will barely shift their situation. In chapter eight of the book, Du Bois records the conversation between the Judge of the town and John, an educated black man who has recently returned home regarding the oppressed relations between whites and blacks.

Well John, I want to speak to you plainly. You know I’m a friend of your people. I’ve helped you and your family, and would have done more if you
hadn’t got the notion of going off. Now I like the colored people, and sympathize with all their reasonable aspirations; but you and I both know, John, that in this country the Negro must remain subordinate, and can never expect to be the equal of white men. (Du Bois 162)

This mindset was common among many men like the Judge, and many other men, such as John, could sense it. There is no shock reaction from John, and no honest sympathy from the Judge, either. Right as he speaks the first sentence, he addresses John and his family as though they are charity when he says, ‘You know I’m a friend of your people.’ He states this as if to show himself as a good man in the eyes of John, and suggests that John should have no hard feelings or negative perceptions of him. He also makes it known that he does not consider himself at having any fault whatsoever, but considers himself to be victimized (“Now I like colored people; but…”) while remaining ignorant and inconsiderate of John’s own position as a black man. Even in the communication between the two men, a deeper communication fails to be articulated directly, but subconsciously instead: and that is the dialogue of John saying to the Judge that it is because of his way of thinking that hinders John from achieving freedom.

In the first chapter of the book, Du Bois introduces the concept of the veil and of second sight. From his explanation, one can decipher why this symbolism hinders the freedom of black souls. In chapter ten, Du Bois writes a deeper analysis of the veil by explaining how it not only embeds itself into the minds of black folk, but into their conduct as well. Below, Du Bois states how a Black boy must act to be considered a progressive youth.

To-day the young Negro of the South who would succeed cannot be frank and outspoken, honest and self-assertive, but rather he is daily tempted to be silent and wary, politic and sly; he must flatter and be pleasant, endure petty insults with a smile, shut his eyes to wrong; in too many cases he sees positive personal advantage in deception and lying. His real thoughts, his real aspirations, must be guarded in whispers; he must not criticize, he must
not complain. Patience, humility, and adroitness must, in these growing black youth, replace impulse, manliness, and courage. (Du Bois 138)

In 1901, before *The Souls of Black Folk*, Booker T. Washington published his autobiography detailing his experiences as a black soul who begins his life as a slave, and ends it as one of the biggest leaders of his generation. Washington’s *Up from Slavery* contains a similar passage to Du Bois’ mentioned above, but with a different perspective.

I almost reach the conclusion that often the Negro boy’s birth and connection with an unpopular race is an advantage, so far as real life is concerned. With few exceptions, the Negro youth must work harder and must perform his task even better than a white youth in order to secure recognition. But out of the hard and unusual struggle through which he is compelled to pass, he gets a strength, a confidence, that one misses whose pathway is comparatively smooth by reason of birth and race. (Washington 23)

While Du Bois views this behavior as submissive and lacking in masculine quality, Washington views it as disciplinary and good for adjusting more comfortably within society. These oppositions appear to be separate, but they are not quite completely unrelated. In fact, there is some intermingling between the two. In Du Bois’ passage, ‘patience, humility, and adroitness must replace impulse, manliness, and courage,’ but in Washington’s passage, he proves that this very behavior makes the second set of qualities stronger, and put to better use: it fuels the black soul’s inspiration to learn more, and to be better.

Now that we have analyzed how the conduct of black youth must be in accordance with a preconceived, societal idea of how they should behave, we can analyze another alteration in behavior: the one of freemen striving to be addressed with a more dignified title than ‘Negroes.’ They would like to be called ‘people of color’ instead, because too many degrading connotations are attached to that word. Unlike the adolescence that Du Bois referred to earlier, these established men already know how to act within society that
refuses to accept them as equals. Here, Du Bois speaks of these freemen having other concerns aside from their behavior. They realize that how the world views them is still more influential than how they behave.

The free Negroes of the North, inspired by the Mulatto immigrants from the West Indies, began to change the basis of their demands; they recognized the slavery of slaves, but insisted that they themselves were freemen, and sought assimilation and amalgamation with the nation on the same terms with other men. The trend of times, however… considered them as one with all the despised blacks, and they soon found themselves striving to keep even the rights they formerly had of voting and working and moving as freemen. (Du Bois 37)

Their hope to free themselves of the negative connotation of the word—and their rejection of this wish—shows that whites did not care of their contribution to the betterment of their interrelated society. Du Bois shines a light upon the fact that Black souls are trying to flee the oppressive beliefs of their superiors, but also of the flogging poverty and degenerative stereotypes that are too often associated with themselves. In this case, the symbolism of the veil signifies the lack of acknowledgment of black folk’s efforts to be free; it gives white people the advantage of not having to witness it, if they choose not to, and also not having it to affect their prejudices.

In chapter ten, Du Bois further analyzes the conduct of black youth acting accordingly with the veil. He also writes about how freed men still lack a sense of respect and influence in society. To further his claim regarding how blacks view themselves and how the world views them, Du Bois adds, “One ever feels his twoness,— an American, a Negro; two souls, two thoughts, two unreconciled strivings; two warring ideals in one dark body, whose dogged strength alone keeps it from being torn asunder” (Du Bois 8). In the introduction of Frederick Douglass’ autobiography, Narrative of Frederick Douglass, Deborah E. Dowell touches on
this belief of divide. She applies it to the slave era of Frederick Douglass.

As is frequently noted, that singular and reverently quoted ideal of American revolution— that ‘all men are created equal’— did not extend to the slave. More to the point, within the logic of that ideal, ‘American’ and ‘slave’ were mutually contradictory. (Douglass xix)

In Du Bois’ case, ‘slave’ can easily be substituted for ‘black,’ and the claim that ‘all men are created equal’ is the equivalent of all men possessing equal rights. Black people knew this law was inapplicable to them, and created without them in mind. It makes it harder for them to figure out which freedoms are possible to attain on their own.

There is an underlying tone of frustration and anger throughout The Souls of Black Folk that cannot help but be detected. These emotions make the book a powerful and intense read; and, by comparing the works of Washington and Douglass with Du Bois, readers can tell how the symbolism of the veil and the concept of freedom is a universal struggle among African Americans. From the concluding paragraph on page 139, Du Bois expresses a feeling of hopelessness and of a crushed spirit.

Some day the Awakening will come, when the pent-up vigor of ten million souls shall sweep irresistibly toward the Goal, out of the Valley of the Shadow of Death, where all that makes life worth living—Liberty, Justice, and Right—is marked “For White People Only.” (DuBois 139)

It is one thing to address the issues of black folk; it is another thing to realize the hopelessness of their situation. Although Du Bois had one of the most successful lives of his generation, this book makes it clear that there is no ‘fix’ to these problems. There is no way for blacks to remove their veils, for they are not the ones who placed it upon themselves. They can change how they perceive what, and who, is on the other side of it; they can weep, laugh, tremble on their side of it, without the others knowing. However, one of the biggest suffocations of these veils is that they do not allow blacks to be delicate. They do not allow them to be vulnerable. In Du
Bois’ texts above and throughout the entirety of his book, he writes with defensiveness for the rights of his people. Like many black folk—especially the ‘Negro youth’—his veil has forced him to change his demeanor so that others do not see him as weak, and so that he does not see himself as weak, either. Blacks, as a people, have inherited this second-sight and incorporated it into how they perceive ourselves. To this day, many believe they ‘aren’t allowed to be feeble, or gentle, or vulnerable,’ although they are. This fight of not allowing to be something that they already are is exhausting. There is not just the defensiveness towards white people, but also to the stereotypes and poisonous opinions they have of themselves. When one reads The Souls of Black Folk, one feels the undeniable pressure Du Bois was certain to have felt during the time period in which he wrote it. One also must face the truth about the veil. As long as it remains, the delicacy will not be acceptable, and freedoms for blacks will remain hidden and out of reach.

By analyzing the symbolism of the veil, comparing Washington’s and Douglass’s works with Du Bois’s work, and acknowledging the tone of Du Bois as essential evidence for his claims, one is able to explore the concept of freedom and what it means to black souls. “Du Bois used language and ideas to hammer out a strategy for the political equality, and to sound the depths of the black experience in the aftermath of slavery” (Young 14). By retaining a sense of purpose and reflection, Du Bois has created “a personal and intimate tone of self-revelation. In each essay I sought to speak from within—to depict a world as we see it who dwell therein” (25).


QSEN Problem: Antibiotic-Resistant Organisms and Infection in Nursing Practice

Holly N. McCabe

Assessment

Antibiotics have been a major contribution to the control of infectious diseases in public health. There are, however, many organisms causing infections that have developed resistance to antibiotics. This resistance makes it hard to treat and control these organisms causing infection. These infections can be contracted in the community, contributing to a significant public health concern, or in the hospital, contributing to a large amount of cost, poor patient outcomes, and deaths. There are numerous antibiotic-resistant organisms and presumably many that have not yet been identified. Examples include methicillin-resistant Staphylococcus aureus (MRSA), vancomycin-resistant Enterococcus (VRE), Klebsiella pneumoniae-carbapenemase-producing bacteria (KPC), and multidrug-resistant Mycobacterium tuberculosis (MDR-TB). The Center for Disease Control (CDC) names Clostridium difficile (C. diff), carbapenem-resistant Enterobacteriaceae (CRE), and drug-resistant Neisseria gonorrhoeae as urgent microorganisms causing significant concern to public health because of the difficulty in treating and preventing spread (CDC, 2010). According to the World Health Organization (WHO) (2015), infections such as urinary tract infections, pneumonia, and bloodstream infections are often due to antibiotic-resistant bacteria.

Infections that are caused by antibiotic-resistant organisms are a topic in Quality and Safety Education for Nurses (QSEN) related to evidence-based practice. Nurses are seeing these patients in all settings, including the community, acute care hospitals, and long-term care facilities. The problem is not confined to the patient population and can affect nursing and other medical and hospital staff, which increases the chance of spreading
the infection. Patients are of particular importance because nurses have the opportunity to help prevent and treat those affected by this problem and contribute to the solution of this increasingly problematic public health issue. These infections are costly not only monetarily but also in terms of patients’ health status. “Cost to care for patients with MRSA infections was higher than cost for other hospitalized patients, with length of stay nearly twice that of patients without MRSA. The mortality rate was much higher...older adults were more likely to be hospitalized” (Upshaw-Owens & Bailey, 2012). The CDC (2010) and the WHO (2015) agree that these infections contribute to cost through lengthy hospital stays because the patients are more critically ill, require more extensive and costly medications and treatment, and have a higher rate of prolonged illness and risk of death. The elderly population is a particularly vulnerable one and important to consider in this issue, especially because the size of the elderly population is increasing steadily. Patients who are identified as having these resistant infections are likely to be in a single-occupancy room and require special precautions. This also drives up the cost of stay. Hospitals are often not reimbursed for the cost of stay when patients acquire certain infections during their hospital stay, and because these patients will be staying longer than other noninfected patients, that further complicates the problem. The treatment of these infections is timely and, therefore, patients have more time to possibly infect others whether in the hospital or community setting contributing to the problem (WHO, 2015). This is also a societal problem, limiting the success of medical advancements, including “organ transplantation, cancer chemotherapy, and major surgery” (WHO, 2015).

Planning

There are many contributions to this problem. Ness, Price, Currie, and Reilly list “poor infection prevention and control practices, insufficient diagnostic, prevention, and therapeutic tools, increased travel, inappropriate prescribing, poor adherence to regimens, weak or absent surveillance and monitoring, and inadequate systems to ensure quality and uninterrupted supply of medicines” (2014). These authors note the implications for nurse
practitioners in particular and state that there are two main ways in which they contribute to this problem: inappropriate prescribing of antibiotics and insufficient education to patients and staff (Ness et. al., 2014). They advise that nurse practitioners take caution when prescribing antibiotics because there is evidence suggesting over-prescription. Some suggestions for improved nursing care include emphasizing the educational aspect of nursing and informing their patients about appropriate medication use, pathophysiology of their illness, and expected signs and symptoms and management of such (Ness et al., 2014).

A prospective study was done on hospital staff in critical care areas such as intensive care units and postoperative surgical units tested for the prevalence of MRSA infection. They used nasal, throat, and finger swabs and noted, “The doctors and nurses were the dominant carriers” (Malini, Shruti, Padmavathy, Umapathy, Navaneeth, Keerthi, & Girish, 2012). They performed a thorough statistical analysis on each employee to determine which antibiotics were resistant to which organisms (Malini, et al., 2012). Their conclusion from the study was that hospital staff is largely affected by antibiotic-resistant organisms and could be a major contributor to the spread of antibiotic-resistant organisms, especially in these critical care areas (Malini et al., 2012). There is obvious importance in preventing the spread from staff to critical care patients, as they are more sensitive to infection and subsequent poor prognosis. Malini et al. (2012) suggest stressing to the hospital staff the importance of infection control and the use of standard precautions (hand hygiene, gloves, gowns, masks, safe injection protocols, etc.) to prevent the spread of MRSA to their patients. They also state that hospital staff should not be overlooked as potential contributors to this problem (Malini et al., 2012).

Similarly, a study was done on 560 nursing home residents located in 9 different homes and 67 different wards to examine the prevalence of antibiotic-resistant infections, including MRSA, but also VRE and extended-spectrum beta-lactamase (ESBL)-producing Enterobacteriaceae (Andersson, Lindholm, Iversen, Giske, Ortqvist, Kalin, & Fossum, 2012). The study showed increased antibiotic use in those who were found to be infected
with ESBL and infection in residents who were living in adjacent rooms (Andersson et al., 2012). It was concluded that infection could have spread between rooms from the use of medical equipment. The authors agree with Malini et al. that infection could have spread from staff members, specifically through inadequate hand hygiene or contaminated clothing, when caring for residents (Andersson et al., 2012). Adherence to strict hand-washing before and after each patient contact, taking care to use gowns with potential contact between clothing and bodily fluids, and disinfection of medical equipment between each patient use could help prevent this problem.

Another important topic of concern is the use of invasive lines in the hospital and their high risk for infection. Centrally and peripherally inserted catheters for distribution of medications and treatments are a common source for bloodstream infection by antibiotic-resistant organisms. Several different types of catheters can be inserted in different blood vessels for critical care monitoring. Infections can also enter the body through urinary catheters that drain the bladder. There are copious reasons a patient may have a urinary catheter; some might be due to urinary incontinence, loss of neurological control of the bladder, or the need for close monitoring of output. A study done on 15 skilled nursing facilities throughout Michigan assessed residents for antibiotic-resistant infections who had indwelling devices (Wang, Lansing, Symons, Flannery, Fisch, Cherian, McNamara, & Mody, 2012). These residents were cultured monthly for infection and, overall, those who had indwelling devices had a higher rate of antibiotic-resistant organism presence (Wang et al., 2012). The most common devices were urinary catheters and nasogastric tubes, and the most common infections found were urinary tract infections and pneumonia (Wang et al., 2012). The authors “suggest that 50% of infections in the device group can be prevented by removing the device” (Wang et al., 2012). This is important to consider as a potential implication for nursing practice. Nurses could advocate for removal of indwelling devices, namely urinary catheters and nasogastric tubes, if their assessments led them to believe they could maintain their health status without it. Nursing staff should be astutely aware that these
indwelling devices carry a high risk of antibiotic-resistant infection and maintain aseptic technique at all times. This could reduce infection rates.

**Implementation**

Of utmost importance to improve this issue is prevention of infection. The easiest and most effective way to do so would be through appropriate hand washing. Hospitals and other nursing facilities in the community should make this intervention easily accessible by placing sinks with antimicrobial soap in every room and/or antimicrobial hand sanitizers. Signs should be placed throughout the facility reminding staff and visitors to wash their hands. During staff meetings or continuing education opportunities, staff should be reminded of the importance of this seemingly simple task in reducing the spread of infection and remediation of proper hand washing given as appropriate. The CDC website identifies appropriate hand-washing technique as wetting your hands with warm water, applying soap, lathering all surfaces for at least 20 seconds, and then drying (2015). Staff can remind visitors to wash their hands before coming in contact with their loved ones. Patients who require special isolation and infection precautions should have proper signage outside their room stating what precautions are necessary and the equipment should be available with which to comply. Nurse managers need to be assessing the need for equipment on their units and advocating for appropriate amount of supplies to implement these precautions during every patient contact. Nurse managers may need to assess their staffing ratios and consider if they have enough staffing to ensure adequate time is allowed for patient care so that staff does not feel the need to cut corners and refrain from following these guidelines. Nurses who are in areas such as surgery or critical care that predispose their patients to a high risk of infection need to be especially cautious of using aseptic technique in caring for their patients. Nurses should be reminded that tremendous costs to the hospital would be saved if infection were reduced.

Nurses in all areas should also focus on education to their patients and their families. If patients are taking an antibiotic, they
need education on the importance of finishing the entire prescription. Evidence shows that resistance develops when the full treatment is not finished (WHO, 2015). Nurses should also tell their patients that they should never take an antibiotic medication that is not prescribed to them, and they should always consult with their doctor on the need for a prescription. Education to the public from community health nurses about the nature of antibiotic-resistant organisms should be initiated. The public should be aware that it is a problem and that they should be trying to limit their need for antibiotics through infection control in their homes. Nurses can guide individuals to credible sources of information about the issue and ways of prevention.

Nurses can advocate to the physicians they work with about avoiding overprescription of antibiotics to patients. Research correlates the abundance of antibiotic use over recent history to the prevalence of antibiotic-resistant infections (WHO, 2015). Hospitals should provide education to their physicians and nurse practitioners about the appropriate prescribing of antibiotics. Nurses and all medical staff should be proactive and keep up with the latest research on the topic and advocate for policies in their hospitals that mimic evidence-based practice in relation to prescribing practices.

Also of importance is the need for nurses to be assessing their patients with invasive lines. Nurses who have patients with invasive lines need to assess their integrity and necessity. If these lines are no longer necessary, then they should be removed. Nurses should remind unlicensed assistant personnel working under their delegation about the need to be using aseptic technique when dealing with any of these invasive lines and the importance of performing thorough hygiene on the patients.

**Evaluation**

In order to determine if these interventions have been successful in improving this issue, evaluation will need to be done. Data should be trended over time for each hospital or long-term care facility about the prevalence of antibiotic-resistant infections. Hospitals need to be sure they are screening for a history of
antibiotic-resistant infection in patients when they are admitted. Nurses can identify those who have a history of infection or who acquire infection while in the hospital and document this. In this way, it allows evaluation of any patterns to see where the infections are most commonly in the hospital setting and if the frequency is decreasing. Nurses should also make sure they are communicating to other staff the infection status of their patients when transferring them to other units.

To be certain nurses and other medical staff at each health care facility understand the implementations to improve antibiotic-resistant infection, nurse managers of each particular unit can periodically test their knowledge and have staff demonstrate proper technique for hand washing, disinfecting work areas, donning and doffing personal protective equipment, aseptic technique, and inserting, caring for, and removing invasive lines in patients. Nurse managers can do this quarterly.

The expectation is that the prevalence of new infection rates in patients will decrease over time. It is also the expectation that physicians and/or nurse practitioners will be cautious when prescribing antibiotics and only do so when necessary. Nurses and staff will have increased knowledge of the importance of following these guidelines. If the data stays stagnant or continues to show worsening of the problem, then staff, in collaboration with infection control services at the facility, will know to conduct research and investigation to establish new ways to combat the issue. Hopefully, with the above implementations, less patients will be infected.

References


A New Challenger Approaches: Video Games Being Used as an Educational Tool

Dustin Bielich

**Introduction**

Since video games were first created back in 1950 with the tic-tac-toe arcade game Bernie the Brain, they were just simple games of enjoyment for your entertainment. As years went on, however, they began to upgrade and improve, as most technology has, and in the present time things have gotten a lot more complicated than just simple games of enjoyment. An example of this is E-sports which is becoming more and more prominent in the world. But that’s beside the point, what we now have is grand, beautiful games, with delightful stories and graphics that really brings you into the world that the team that made the game created and with this emersion comes many different factors. With stories we now have a plot, characters with emotions and motives, symbolism, metaphor, and so on, and with everything that is now in play when it comes to games, I believe that video games should be used in the educational system as an educational tool. And I’m not talking about literal educational games like Mavis Beacon or Reader Rabbit, I’m talking about real games like Silent Hill, The Legend of Zelda, Life is Strange, and many others that could be used in the class room to help educate students in the digital age.

Now before I get into this whole mess where I will blow your mind more than once, I have to address that I do realize not everyone likes video games, and there is a common misconception that video games promote and cause violence and aggression issues in kids. To the people that don’t necessarily enjoy video games, I don’t really have an answer for you. There are just some things that people do not like. Me, I don’t like soccer and a large part of the world enjoys watching soccer. We all have our preferences. Now to the people that believe that video games cause
violence and aggression, I’d have to say that this simply isn’t the case. Violence has been around since day one and we have cave drawings to prove this. The top selling book of all time has tons of violent stories within it, and that’s the Bible. So I feel pretty confident when I say that violence is nothing new in the world, and you can villainize video game all you want but if video games were never invented, there would still be violence in children and teens worldwide.

**Why We Play and Are Drawn To Video Games**

Enough with the dramatics now, let’s get on with the show. To be able to do this properly let’s start off with what makes games fun and why people love them so much. We can all agree that we love to play, a great game. There’s nothing better than being fully immersed in something. You know that feeling when you get into the flow and hours pass without you knowing until the sun is gone and you’re surprisingly hungry. There’s an actual term for this and that is “cognitive flow”. According to Csikszentmihályi, the doctor who gave this an official name, cognitive flow is a totally focused motivation. It is a single-minded immersion and represents perhaps the ultimate experience in harnessing the emotions in the service of performing and learning. In flow, the emotions are not just contained and channeled, but positive, energized, and aligned with the task at hand. In modern day terms, cognitive flow is parallel to being “in the zone”. But how does a game draw us in, and why do we play? Well, there are basically three categories for this and that is competence, autonomy, and relatability.

According to Scott Rigby, the first thing is a need for competence.

“Competence is a desire to seek out control or to feel mastery over a situation. People like to feel successful, and we like to feel like we’re growing and progressing in our knowledge and accomplishments. This need plays out in real life when people decide to switch careers or go back to school because their current job isn’t rewarding or challenging enough. It’s also easy to see how video games make us feel more accomplished.”
That basically means that every time you defeat a boss or successfully solve a puzzle just in the nick of time the game is satisfying our need and desire for competence.

The second is autonomy. Autonomy is the need of control over some sort of action and independence as well. “This need pervades nearly every facet of our culture. The drive toward autonomy is why people instinctively dislike being manipulated; it’s why imprisonment is a punishment, and why we feel an innate urge to rebel against slavery.” (Reeves) Autonomy is why Role Playing Games like The Elder Scrolls and Bloodborne are so popular. Rigby relates this with his example of raising children.

“The terrible twos are a great example of the need for autonomy. It’s not terrible for the kid. It’s terrible for the parent who has to listen to their kid say ‘No’ all the time. What is that kid doing? The kid is showing their autonomy. They want to be in control of their destiny, and they’re verbally flexing that muscle for the first time.”

The final part of this triangle is relatability. We need to feel like we are contributing and that we, as a player, are making a difference in the world. This is often found through multiplayer games where you can collaborate with people across the country or even across the world. You don’t even need real people to achieve this feeling though. Game developers often give you a mission or quest where you help other civilians in this world. That creates the same feeling.

As humans we are drawn to these experiences that give us all three of those categories because they all make us feel good and keep us mentally healthy. Video games aren’t the only way to get this feeling, they can be found through work, school, friends, sports, and hobbies. However, sociologists are beginning to find that video games are one of the most seductive of all of these activities because they fulfill our psychological needs more efficiently than almost any of those other options. Though you don’t want to be just some shut-in. The perks of achieving these in real life is that they will promote real life cause and effects as opposed to some program in a game. Like a lot of things in life you just need to find the right balance of the two for optimal outcomes.
**Basic Human Improvements**

Video games help expand the brain as well as other skills that we do in everyday life. Since I throw a lot of time in fighting games they will be the example I give throughout. One thing that playing fighting games does to our mind is exercise patience, and patience is a virtue. They teach you that jumping in as fast as you can to pound on your opponent is generally not the best idea. It is a lot easier to wait it out, and play a game of footsies (like in chess) and capitalize off of your opponent’s mistakes. Another thing that fighting games teach is quick decision making while also thinking on your next move. This is a lot like chess or checkers on steroids. In chess or checkers you make a move, your opponent has to move according to what you did and then capitalize or set themselves up for moves ahead. This is paralleled in fighting games as your character has an arsenal of moves that can be used against your opponent and it’s your input that decides whether you succeed or get blown out. Yet even if your plan is spotless and perfect in your mind’s eye and has been working for six matches in a row, you will eventually find a player that recognizes what you are doing and counter. When you get countered, what do you have to do? Readjust and adapt to the situation at hand which is something that happens in all aspects of life, but in real life they generally don’t have a cause and effect in less than a minute. This is that quickness training I was talking about. Now if you were a business man and you are in the pool to get this big promotion, who is the guy that will get the promotion. The guy who can think on his feet and make a quick decision or the guy that has to mull it over for a while? My money is on the guy that is quick and efficient in a pinch. Play a fighting game for a couple of hours and you will understand what I mean by all of this. Now there are varying difficulties to fighting games based on their input. If you are new to video games, I would suggest a fighter like Super Smash Bros. which is one of the easiest set up out there as opposed to Marvel vs. Capcom which is for crazy people. These games are also a great place to blow off some steam and relax if you’ve had a long day. You come home from work or school and things just haven’t gone your way slap in Street Fighter or Mortal Kombat, pick your favorite player, and just blow off steam against any computer.
opponent or work on some combos in training mode, and you’ll feel a sense of satisfaction or maybe even a bit of competence.

**Video Games Being Used As an Educational Tool**

Video Games are already being used in the classroom when it comes to nursing schools. They find that it is a lot easier and safer to practice with a simulation than on a real patient. But those aren’t really what I’m talking about. There’s obviously a large difference between a game and a simulation. For example, video games have stories, well most of them have stories, and there are some games whose stories can be used within an English class. In my Composition Two class, one of our first assignments was to read a book titled *Between the World and Me* by Ta-Nahisi Coates. This book is essentially Coates writing a letter to his son about the world, feelings, racial violence, and racial discrimination. These are all real world problems that we deal with or hear about every day. Since this is the most recent book related assignment I have done, I thought it would be perfect to parallel it with a game called Life Is Strange by the French studio, DONTNOD Entertainment. Life Is Strange, is a decision based game that gives us a coming of age story centered on Max Caulfield, a very generic high school girl who obtains the ability to go back in time to fix a situation. This game is wonderful in my opinion because of the level of realism that is used, the themes, topics, and events that occur in this game are not sugar-coated one bit a lot like “Between the World and Me”.

But how does this relate to Coates’ book? Well, let’s start off with the real world discussions. Life Is Strange gives us real world issues to deal with like cyber bullying, domestic violence, drug abuse, and handicaps. Now this is where book and game split. When reading Coates’ book, I felt like I was just being talked at. I didn’t really feel anything more than I had to, I sympathized when I needed to, I disagreed other times, but as a whole I felt like I was just getting lectured about the subject. With Life Is Strange since it is a decision based game, not only are you witnessing the problems unfold, you also play a role in how things play out. I’ll use cyber bullying as the example. At the very beginning of the game we are introduced to Kate Marsh, who already from the get go looks quite
sad. We find out that an embarrassing video of Kate has been spread around the internet by a stereotypical mean group of girls that call themselves The Vortex Club. Kate’s life is essentially falling apart because of this and in response to all of this she decides to commit suicide, but whether or not her attempt is successful is completely up to you, the player. The way you interact with Kate, the other students, and even the world around you all comes in to play when you find yourself up on top of the roof trying to talk Kate down. When I first played this I’m not going to lie, I completely failed, and Kate jumped. The emotion I felt after that was very strong, I had to put down the controller and take a minute to myself, and as I thought I realized that this all is very real. This stuff happens every day, and it really connected with me. It shed light with how cyber bullying really affects others rather than just being. This is the difference; with a book you might receive the message but it might not stick. However, with a game you experience the message which makes it so much more real and easier to write about and discuss.

Don’t get me wrong, books are still an essential in an English class and they always will be. There are somethings that books teach us and show that a game can’t emulate. Also I don’t think a game about *The Great Gatsby*, *The Crucible*, or *Brave New World* would be very entertaining or stimulating at all and because of that the whole point and message of the book would be ruined. I’ll use J.K. Rowling’s *Harry Potter* series as an example. These books are great, and the movies are well done as well, but have you ever put your hands on a Harry Potter game? They’re pretty terrible except for the one where you play Quittich, that one is great. The transition from book, to movie, to game means that there is a great loss in detail. Also, the character of Harry Potter becomes a more heroic, action based protagonist and less interestingly conflicted, and his friends become less important to his success and personal development. These things are hard to get into a game unless it is super long and that just isn’t practical in a classroom setting. Books are very necessary to the classroom and it’s also my opinion that kids shouldn’t be introduced to reading or educational things like math through technology.
Video games could also be used in other classes like art, music, psychology, and philosophy. Art and music are pretty easy to understand as most people that are in art class know video games and create things digitally. You can also critique the different styles of art used in a game, but again, that’s pretty obvious. Music is a little less obvious because it’s generally just in the background. Yet, there are some really great games that have great music, and they can be used as a way to show how music affects something. Good music can make a bad game bearable and a good game great, while bad music just makes anything “meh”. My example for a psychology class would be the entire section of why we are drawn to games. Kind of blows your mind right?

Then philosophy, well I’ve been reading a book by Luke Cuddy titled, *The Legend of Zelda and Philosophy*, and I thought it would fit in here quite nicely. This book asks all sorts of questions related to the very popular Legend of Zelda franchise. Cuddy takes some of the following questions into examination throughout this book like: Does Link (the protagonist of the franchise) have a will or does the player project their will onto Link? Do the rules of logic apply in Hyrule? Can Hyrule be seen as an ideal society? Is the Legend of Zelda art? This book has already put video games on the philosophical map as a serious area of study, and since the Legend of Zelda started in 1986 and has continued to 2016, students would be able to understand and relate to it for we were born in it, molded by it. I didn’t see a 3-D Zelda game till I was already a man.

**Conclusion**

Video games are here and now. There’s no denying it and they will only get bigger and better as time goes on. I mean we are on the very edge of virtual reality quite literally. So why not use them for something more than a waste of time, because a good game should never be a waste of time. It needs to have a message, or a challenge that grabs you and never lets go. This is what video
games can bring to the classroom: A way to spice up the educational experience as well as subconsciously improving them as well. Essentially killing two birds with one stone, I mean look at this paper. The whole section of why we like games is just a giant lesson on how the brain works and basic human desires. There’s so much to offer that most people don’t often see because the common opinion of video games to adults is that they are a waste of time and violent. If you never try to taste your new recipe, how will you know if it works or doesn’t.
Works Cited


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