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"I live my life in widening circles that reach out across the world."
— Rainer Maria Rilke, Rilke's Book of Hours: Love Poems to God

Committing to a research topic can be joyful and painful. Some scholars struggle with finding the perfect topic without realizing that perfection is an unattainable goal. Others find so many intriguing topics that they struggle to settle on a single project. And, of course, the struggle continues as theories and hypotheses are chosen and then discarded, analysis plans are developed and found lacking, and results lead down paths not found on any known map. The results of those struggles of our 2016 McNair Scholars are found in the pages of this journal. In each case, scholars learned more than they set out to learn and accomplished more than they may have thought possible—or perhaps desirable. Our hope is that the research process served to hone scholars' skills and broaden their knowledge in a manner that will positively affect their future endeavors and the world that awaits them.

Dr. Jennifer Zwahr-Castro
McNair Scholars Program Director
Fall 2016

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The Role of 11β-Hydroxysteriod Dehydrogenases in Non-Melanoma Skin Cancer

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The high incidences of non-melanoma skin cancer and the development of resistance to common treatments make understanding the mechanisms of glucocorticoid regulation important. Glucocorticoids (GCs) are steroid hormones that are commonly used as treatments for non-melanoma skin cancer (NMSC) due to their negative effects on cancerous cells such as triggering cell cycle arrest and apoptosis. An important regulatory mechanism for GCs is the activity of 11β-hydroxysteriod dehydrogenase (11βHSDs) isozymes 1 and 2. The role of 11βHSD1 is to activate GCs from their inactive forms while the role of 11βHSD2 is to inactivate GCs. Previous studies in colon cancer and small-cell lung cancer have shown that 11βHSD2 may play a role in tumorigenesis. The purpose of this investigation is to characterize 11βHSD2 expression and evaluate its possible role in transformation within a well-established in vitro mouse model of squamous cell carcinoma. Understanding the role of 11βHSD2 in malignant transformation may lead to new and effective treatment regimens that could target the expression of 11βHSD2 within NMSC.

Introduction

It is estimated that 20% of the United States population will develop some type of skin cancer in their lifetime and that

there is over one million new cases diagnosed each year (Robertson 2005 and Rogers 2010). Glucocorticoids (GCs) are steroid hormones involved in important biological processes such as: growth and development, metabolism, immune responses, and apoptosis (Schlossmacher 2010). The anti-inflammatory and anti-proliferative properties of GCs make them some of the most effective therapeutic and anti-cancer agents for non-melanoma skin cancer (NMSC) (Banciu M, Schiffelers R, and Metselaar 2008). Their negative effects on cancerous cells through glucocorticoid receptor-mediated processes, such as altering the signaling of vital pathways, triggering cell cycle arrest, and inducing apoptosis, make the use of GCs in cancer treatment essential, although its effectiveness varies depending on the type of cancer (Schlossmacher 2010). Furthermore, GCs are used in combination with therapies for solid tumors in order to decrease the side effects of the cancer itself and/or common chemotherapeutic agents such as nausea, edema, and an imbalance of electrolytes (Schlossmacher 2010). Unfortunately, it has been shown that skin cancer patients often develop GC resistance, especially in cells that are derived from solid, malignant tumors, thus allowing the anti-cancer effects of this hormone to be nullified (Schlossmacher 2010).

At the cellular level, the effect of glucocorticoids is not only regulated by the concentration of ligands and glucocorticoid receptors (GRs) available in the body but also by isozymes called 11β-hydroxysteriod dehydrogenases (11βHSDs). The role of the isozyme 11βHSD1 is to catalyze the conversion of inactive forms of GCs to active GCs (Rabbitt, Lavery, and Walker 2002). On the other hand, the key role of the isozyme 11βHSD2 is to convert active GCs to inactive forms of GCs (Rabbitt, Lavery, and Walker 2002). These enzymes regulate the availability of active forms in comparison to inactive forms of GCs, thus 11βHSDs ultimately determine the actions of GCs in the body. Although incidences of non-melanoma skin cancer are on the rise and topically administered GCs are common in NMSC treatments, the role of 11βHSDs in GC regulation within skin cancer has yet to be assessed. Despite the knowledge gap, it has been shown that

11βHSD2 may play a role in tumorigenesis in other cancers such as colon cancer and small-cell lung carcinoma, as 11βHSD2 is expressed to a higher degree in cancerous cells than their normal counterparts (Rabbit 2002, Krozowski 1999, Sai 2011, and Zhang 2009). Other studies have suggested that the anti-cancer effects of GCs can be inhibited as a result of a decrease in the concentration of GR ligands due to an increase of 11βHSD2 expression. While 11βHSD2 may play a role in the transformation of skin cancer, it is important to note that cancer development is the result of many different environmental and biological factors but it is suggested one aspect of this process may be linked to the activity of 11βHSD2. The purpose of this study is to characterize the expression of 11βHSD2 in the development of the well-established in vitro mouse model of squamous cell carcinoma. We hypothesized that 11βHSD2 is expressed to a greater degree in cells that have already underwent transformation in respect to their normal, noncancerous counterparts. Understanding the role of 11βHSD2 in NMSC can lead to the development of treatments that target this enzyme in cancer patients. As the demand for new and effective treatments increases, determining the roles of 11βHSD2 in the regulation of GCs during the transformation and progression of NMSC becomes critical.

Approach

For the purposes of this study, to grow and characterize 11βHSD2 expression, three different cell lines will be cultured: 3PC, MT ½, and Ca 3/7. These cell lines were chosen as they show a molecular progression of squamous cell carcinoma such that if the cells were injected into a nude mouse, they would exhibit different stages of skin cancer. The 3PC cells are abnormal but are non-tumor forming, MT ½ cells will form papillomas (which are found only in mice not in humans), and Ca 3/7 cells will form squamous cell carcinoma. If our hypothesis, stating that 11βHSD2 is a necessary tool for the transformation of cancer, is correct, we expect to see the lowest 11βHSD2 expression in 3PC cells and the highest 11βHSD2 expression in Ca 3/7, the fully malignant squamous cell carcinoma.

Methodology

Cell culture

- Cells will be started-up from 1mL freeze-downs located in a -80°C fridge and will be placed in an incubator.

- Each cell line has a different growth rate and are very sensitive (temperature, trypsin, etc) so they must be checked <u>daily</u>.

- Cells will be passaged into 2-4 new plates at a 1:10 or 1:5 cell to media ratio.

    - 2-5 mL of the remaining cells from the passage will be used to make freeze-downs for future use.
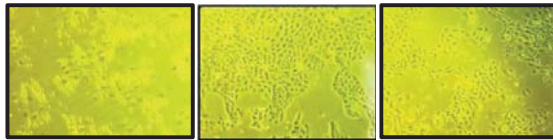
Figure 1: Images of 3PC, MT ½, and Ca 3/7 cell lines in order. The cell lines show a molecular progression of squamous cell carcinoma. The 3PC cells are normal skin cells. The MT ½ cells and Ca 3/7 cells are cancerous cells.

Protein extraction and quantification

In order to use the western blot procedure to compare the amounts of 11βHSD2 expressed in each cell line, protein from the cells had to be extracted and quantified. Cells were seeded at approximately 500,000 cells per dish and lysed after 24 hours. Lysates were collected and stored in a -80°C fridge until ready for the BCA assay, which is used to quantify the protein. After calculating the concentration of protein, the data was entered into an Excel spreadsheet to calculate the volume of Ripa buffer, loading dye, and sample that is required to standardize the amount of protein to be loaded in each well so that the results of each cell line can be compared to each other. After adding the various solutions accordingly, the samples were vortexed, boiled, and then placed in a -20°C freezer until ready to perform the western blot.

Gel Electrophoresis, Western Blotting, and Developing
      The protein lysates that were collected and prepared previously were thawed on ice. While the samples were being defrosted, the running buffer was prepared at a ratio of 1ml concentrated running buffer to 100ml of deionized water. The running buffer is vital because it will determine how well the proteins will separate during gel electrophoresis. The pre-cast gel is prepared and loaded into the basin of the gel apparatus and it is filled and washed with running buffer. The wells are then carefully loaded with 47μL of protein into a 50μL total volume well, two of the wells are loaded with the Kaleidoscope Protein Standard as a marker. The marker is used to identify the proteins based on their size in kDaltons. The purpose of running the gel is to separate the proteins in the sample by size and charge so that we can probe for specific proteins such as 11βHSD2.
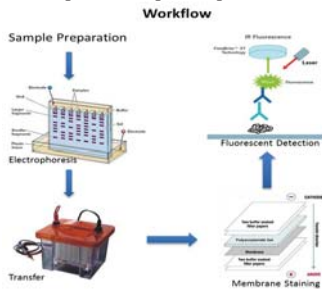
Figure 2: A simplified diagram of the process of running a gel and transferring proteins during a western blot procedure. It is important to note that for the purposes of this study, the protein is probed using antibodies and developing reagent, not immunofluorescent imaging was used (Western 2010).

      After the proteins are separated on the gel, we create a sandwich of thick whatman paper, a membrane, the gel, and another whatman paper on the transfer apparatus (See Figure 2). The sandwich is soaked with transfer buffer and rolled out to remove the air bubbles. The purpose of doing this is ensure that the protein from the gel is properly transferred to the membrane paper. Any air bubbles will block the protein from being

transferred and make it impossible to determine amount of 11βHSD2 in the cells, forcing us to start from the beginning. After the transfer is complete, the membrane is cut just under 75 kD and 20 kD, which is where the 11βHSD2 proteins are located. The membrane must be washed and blocked before being probed for glucocorticoid receptor (GR) and 11βHSD2 using their respective antibodies overnight. Next, the membrane is washed and probed using anti-mouse antibodies for one hour. Then the membrane is exposed to ECL developing reagent and developed in a dark room. The bigger the band, the more protein that was being expressed.

Results

The density of the bands corresponds the amount of protein that was being expressed in the cells after a 24 hour period. Due to time constraints, the protein from MT ½ cells have not yet been analyzed. The results were normalized to a β-actin control. As expected, the Ca 3/7 cells have a greater expression of 11βHSD2 than the 3PC as shown by the results of the western blots (See Figures 3 and 4).
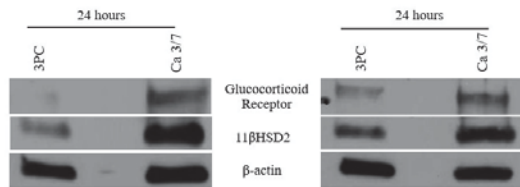
Conclusion

The purpose of this study was to characterize the expression of 11βHSD2 in a well-established in vitro model of mouse-derived cells of squamous cell carcinoma in order to determine whether 11βHSD2 is a necessary mechanism for the transformation of NMSC. It was shown that 11βHSD2 is indeed expressed to a larger extent in squamous cell carcinoma cells (Ca 3/7) than in normal skin cells (3PC). According to the western blot, that there was a higher concentration of GR in the Ca 3/7 cells than the 3PC cells which could suggest that there were more

glucocorticoids present in the cells. Currently, animal studies are underway to investigate the findings we have thus for in the in vivo model using well-established two-stage carcinogenesis approach to NMSC development and progression. When the study is completed, we expect to see 11βHSD2 expression in the mice treated with a carcinogen to be greater than the mice treated with only the vehicle, which does not induce cancer. In future in vitro studies, we plan to perform a genetic knockdown of 11βHSD2 through transient transfection of siRNA in order to destroy the 11βHSD2 mRNA so that the protein will not be expressed in the cells and analyze the transformation using soft agar assays. Soft agar assays are the closet we can come to testing whether the cells will form solid tumors in the body. It is expected that the cells that are genetically knockdown of 11βHSD2 will not form tumors or will have less tumor formation compared to cells that contain fully functioning 11βHSD2.

References

Banciu M, Schiffelers R, Metselaar J, et al. Utility of targeted glucocorticoids in cancer therapy. Journ of Lipo Research. 2008:18:47-57.

Krozowski Z, Li K, Koyama K, et al. (1999). The type I and type II 11ß-hydroxysteroid dehydrogenase enzymes. Journ of Ster Biochem and Molec Bio. 1999:69:391-401.

Rabbitt E, Lavery G, Walker E, et al. Pre-receptor regulation of glucocorticoid action by 11ß-hydroxysteroid dehydrogenase: a novel determinant of cell proliferation. The FASEB Journ. 2002:16:36-44

Robertson, J. Sun exposure, sun protection, and vitamin D. Journ of the Am Med Assoc. 2005:294:1541-1543.

Rogers HW, Weinstock MA, Harris AR. Incidence estimate of non-melanoma skin cancer in the United States. Arch of Derm. 2010:3: 283-7

Sai S, Kakagawa Y, Yamaguchi R, et al. Expression of 11ß-hydroxysteroid dehydrogenase 2 contributes to glucocorticoid resistance in lymphoblastic leukemia cells. Leuk Rese. 2011:35:1644-1648.

Schlossmacher G, Stevens A, White A, et al. Glucocorticoid receptor-mediated apoptosis: mechanisms of resistance in cancer cells. Journ of Endoc. 2010:211:17-25.

Western blot workflow. Case Wes Res Univ. 2010. June 23, 2016, http://proteomics.case.edu/proteomics/westernblot.html

Zhang M, Xu J, Yao B, et al. Inhibition of 11ß-hydroxysteroid dehydrogenase type II selectively blocks the tumor COX-2

pathway and suppresses colon carcinogenesis in mice and humans. The Journ of Clin Inves. 2009:119:876-885.

Combination Therapy for Ovarian Cancer: Estrogen Receptor Beta Agonist LY500307 and Epigenetic Drugs

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Research Objective

To enhance the tumor suppressive functions of estrogen receptor beta using ERβ agonist LY500307, KDM1A inhibitor NCD-38 (2-(N-4-Phenylbenzenecarbonyl)amino-6-(trans-2-phenylcyclopropane-1-amino-N-(3-chlorobenzyl)hexaneamide trifluoroacetate), and DNMTs inhibitor decitabine (5-aza-2-deoxycytidine) alone and in combination to treat ovarian cancer.

Introduction

Ovarian cancer (OC) is the deadliest of all gynecological malignancies. It is the 5th leading cause of cancer death among women. Because OC is difficult to diagnose, the majority of cases are advanced (stages III and IV). Despite therapeutic advances, survival rates remain poor for OC, with the 5-year survival rate below 30%. Tumor recurrence and resistance is also a barrier in effective treatment as 70% of tumors will recur and the 5-year survival rate for recurrent tumors is less than 10% (Omura, 1991; Berek, 2003; Koukoura, 2014; American Cancer Society, 2015). Standard treatment including surgical resurrection, chemotherapy, and radiation are not effective. Further, investigative therapies have not achieved significant therapeutic benefit. Current methods fail to effectively target key aberrations in OC development including: 1. The loss of tumor suppressor estrogen receptor beta (ERβ) 2.

Epigenetic alterations via lysine-specific demethylase 1A (KDM1A) and DNA methyltransferases (DNMTs). Together, these epigenetic changes are vital to tumorigenesis (Weberpals, 2011; Koukoura, 2014; Bhattacharjee, 2016). ERβ, downregulated in OC, plays an essential role in cell growth, differentiation and development, and possesses anti-proliferative and anti-inflammatory actions (Paterni, 2014; Sareddy, 2015; Ioannis, 2016). KDM1A, overexpressed in OC, is crucial to embryogenesis, differentiation, and stem cell maintenance. DNMTs, responsible for the balance of methylation patterns involving gene activation and inactivation, acquire aberrant methylation patterns in OC (Konovalov, 2013). Targeting these reversible changes in DNA and histone structure, thereby restoring tumor suppressing functions, may enhance OC treatment.

Abstract

Over 140,000 women die from OC each year. Advances in standard treatment have not improved survival statistics (American Cancer Society, 2015). However, recent studies have revealed the significance of estrogen receptor beta in OC progression and its therapeutic potential for this deadly cancer (Shanle, 2010; Younes, 2011; Paterni, 2014; Sareddy, 2015); the biological effects of estrogen are mediated through the action of estrogen receptor alpha (ERα) and estrogen receptor beta (ERβ). Though similar in structure, ERα acts as a tumor promoter and ERβ acts as a tissue-specific tumor suppressor. Research indicates the expression of ERβ is reduced due to hypermethylation of its promoter (Konovalow, 2013). The loss of ERβ expression is associated with poor prognosis. Additionally, the use of standard treatment has a negative effect on the expression of ERβ—chemotherapeutic agents reduce tumor suppression by disrupting the expression, localization, and functions of ERβ (Shanle, 2010; Ioannis, 2015). In the present study, we aim to enhance the tumor suppressive functions of ERβ by upregulation using ERβ agonist LY500307, KDM1A inhibitor NCD-38, and DNMTs inhibitor decitabine alone and in combination. The in vitro models in the present study demonstrate that LY500307, NCD-38, and decitabine reduce cell viability, increase the expression of ERβ, and induce apoptosis in

OC cells; additionally, ERβ-specific agonist LY500307 and epigenetic drugs have the potential to maximize treatment when used in combination.

Materials: Model cells: human OC cell lines ES2 and SKOV3 Media: McCoy's 5a medium containing 10% Fetal Bovine Serum (FBS) Drugs: LY500307 (LY), NCD-38 (NCD), and decitabine (DEC).

Methods: Cell culture, MTT assay, drug treatment, qRT-PCR, Annexin V apoptosis assay, and Caspase-Glo 3/7 assay.

Results

LY500307, NCD-38, and decitabine reduce cell viability. To determine whether LY (Fig. 1a), NCD (Fig. 1b), and DEC (Fig. 1c) reduce cell viability, an MTT assay was performed using ES2 cells; it was determined that all drugs effectively reduce cell viability in a dose-dependent manner.

Decitabine and NCD-38 increase the expression of ERβ. To confirm that epigenetic drugs NCD and DEC enhance the expression of ERβ RT-PCR was performed using SKOV3 cells. A significant increase of gene expression was observed with continued exposure to treatment and NCD and DEC resulted in a greater expression of ERβ when used in combination. (Fig 2.)

LY500307 induces apoptosis. The apoptotic effect of LY on ES2 and SKOV3 cells was examined using an Annexin V Apoptosis assay. LY significantly induced apoptosis in Fig. 3a-c between both cell lines. Additionally, a Caspase-Glo 3/7 assay was performed (Fig. 3d-e) to include early and late apoptotic events. Both figures 1 and 3 suggest that LY is successfully able to reduce cell viability and induce apoptosis of OC cells.

Combination therapy using LY500307, NCD-38, and decitabine increases apoptotic effect in ES2 cells. The efficacy of using of LY, NCD, and DEC in combination was explored using an Annexin V Apoptosis assay using ES2 cells. It was determined that combination of these drugs resulted in an increase of apoptosis (Fig. 4).

LY500307, NCD-38, and decitabine reduce cell viability.

A.
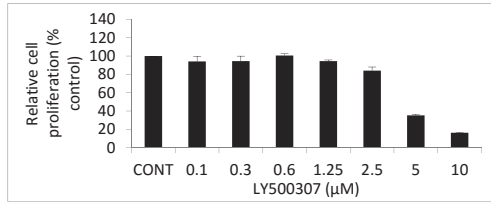
B.
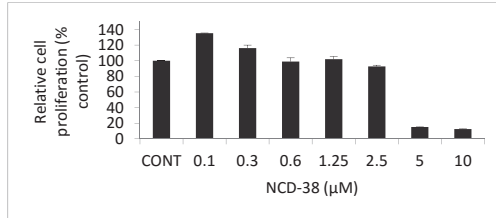
C.
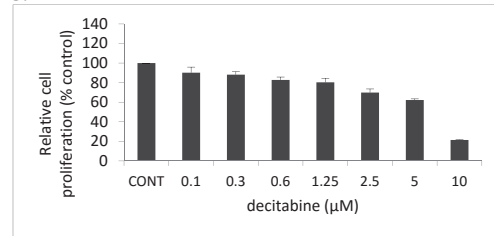
Figure 1. ES2 cells were treated with LY, NCD, or DEC for 5 days and the cell viability was measured using an MTT assay.

Decitabine and NCD-38 increase the expression of ERβ.
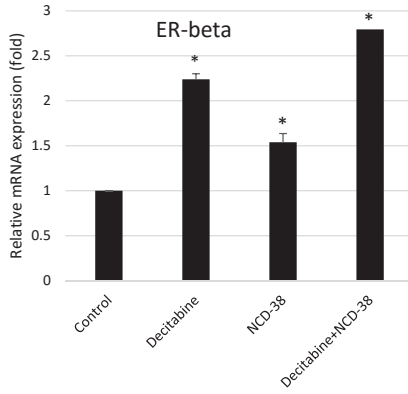
Figure 2. SKOV3 cells were treated with decitabine or NCD-38 for 72 hours; combination of decitabine and NCD-38 treatment concluded after 5 days. RT-PCR was performed using human estrogen receptor beta primers and beta-actin was used as an internal control. *P <0.05.

LY500307 induces apoptosis.

A.
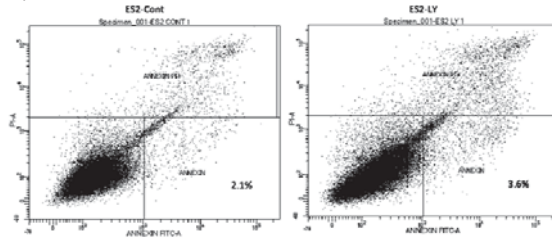
B.
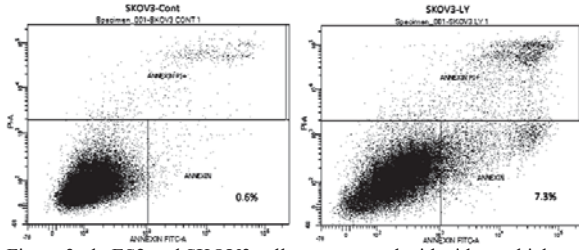
Figure 3a-b. ES2 and SKOV3 cells were treated with either vehicle or LY500307 for a total of 48 hours followed by Annexin V and Propidium Iodide staining for 15 minutes. Cells positive for Annexin V were determined using flow cytometry.

C.
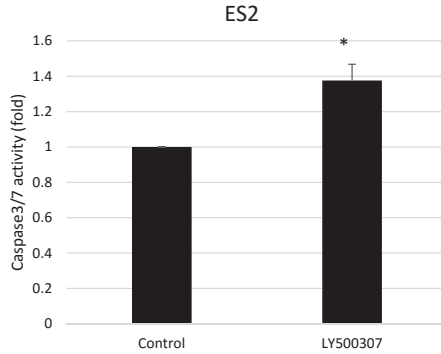
D.
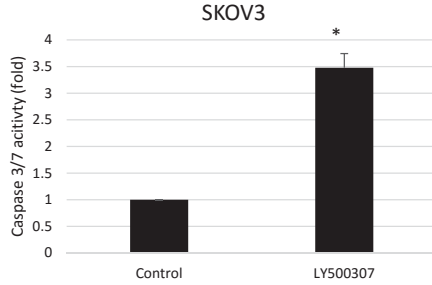
Figure 3c-d. ES2 and SKOV3 cells were treated with LY500307 for a total of 48 hours followed by Caspase-Glo 3/7 assay with incubation of 1 hour using luciferase substrate. Luminescence in terms of caspase 3/7 activity was measured using a luminometer. *P <0.05.

Combination using LY500307, NCD-38, and decitabine increases apoptotic effect in ES2 cells.
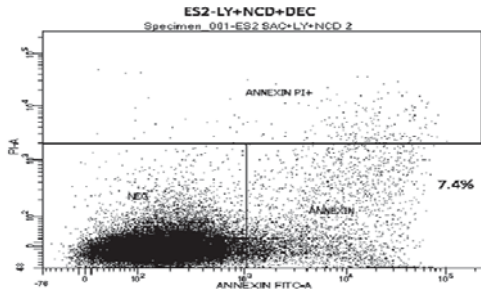
Figure 4. ES2 cells were treated with LY, NCD, and DEC for a total of 48 hours followed by Annexin V and Propidium Iodide staining for 15 min. Cells positive for Annexin V were determined using flow cytometry.

Discussion

The need for novel treatment of OC is clear. These results provide evidence that using ERβ-agonist LY500307, KDM1A inhibitor NCD-38, and DNMTs inhibitor decitabine, alone or in combination, as a potential viable therapy for OC by inhibiting cell
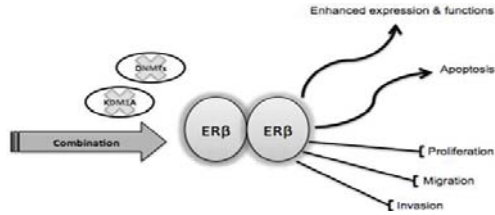
growth and inducing apoptosis through the activation of ERβ. These drugs are safe and readily transferable for clinical use as LY500307 is presently in phase II clinical trial for the management of schizophrenia, NCD-38 has a proven safety profile, and decitabine is FDA approved. Restoring the function of ERβ by targeting the aberrant changes in chromatin and histone structure vital to the tumorigenesis provides a tissue-specific therapy. Though continued investigation is needed to confirm the efficacy of combination therapy, it holds great potential. This method would permit lower drug concentration and maximize OC patient therapy by breaking the barriers associated with poor treatment response. Finally, applying selective, anti-tumor ligand LY500307 in combination with epigenetic drugs would maximize standard treatment and has the potential to provide a more effective, and targeted treatment for OC patients in the future.

References

American Cancer Society. *Cancer Facts & Figures 2015* [PDF document]. Retrieved from American Cancer Society Online Website: http://www.cancer.org/research/cancerfactsstatistics/cancerfactsfigures2015/index

Berek, J.S., Bast, R.C. Jr., (2003). Epithelial ovarian cancer. *Holland-Frei Cancer Medicine*. *6*. Retrieved from: http://www.ncbi.nlm.nih.gov/books/NBK12433/

Bhattacharjee, D., Shenoy, S., & Bairy, K. L. (2016). DNA methylation and chromatin remodeling: The blueprint of cancer epigenetics. *Scientifica*, *2016*. doi: 10.1155/2016/6072357

Ioannis, I., & Papaioannidou, P. (2016). Estrogen receptor beta and ovarian cancer: A key to pathogenesis and response to therapy. *Archives of Gynecology and Obstetrics*, *293*(6), 1161-1168. doi: 10.1007/s00404-016-4027-8

Konovalov, S., & Garcia-Bassets, I. (2013). Analysis of the levels of lysine-specific demethylase 1 (*LSD1*) mRNA in human ovarian tumors and the effects of chemical LSD1 inhibitors in ovarian cancer cell lines. *Journal of Ovarian Research*, *6*, 75. doi: 10.1186/1757-2215-6-75

Koukoura, O., Spandidos, D. A., Daponte, A., & Sifakis, S. (2014). DNA methylation profiles in ovarian cancer: Implication in diagnosis and therapy (review). *Molecular Medicine Reports*, *10*(1), 3-9. doi: 10.3892/mmr.2014.2221

Omura, G.A., Brady M.F., Homesley H.D., Yordan, E., Major, F.J., Buchsbaum, H.J., Park, R.C. (1991). Long-term follow-up and prognostic factor analysis in advanced ovarian carcinoma: The gynecologic oncology group experience. *Journal of Clinical Oncology, 9*(7), 1138-50.

Paterni, I., Granchi, C., Katzenellenbogen. J. A., & Minutolo. F.
      (2014). Estrogen receptors alpha (ERα) and beta (ERβ):
      Subtype-selective ligands and clinical potential. *Steroids*,
      3, 13-29. doi:10.1016/j.steroids.2014.06.012

Sareddy, G. R., & Vadlamudi, R. K. (2015). Cancer therapy using
      natural ligands that target estrogen receptor beta. *Chinese
      Journal of Natural Medicines, 13*(11), 801-807. doi:
      0.1016/S1875-5364(15)30083-2

Shanle, E. K., & Xu, W. (2010). Selectively targeting estrogen
      receptors for cancer treatment. *Advanced Drug Delivery
      Reviews*, *62*(13), 1265-1276. doi:
      10.1016/j.addr.2010.08.001

Weberpals, J., Koti, M., & Squire, A. (2011). Targeting genetic
      and epigenetic alterations in the treatment of serous
      ovarian cancer. *Cancer Genetics*, *204*(10), 525-535. doi:
      10.1016/j.cancergen.2011.09.004

Younes, M., & Honma, N. (2011). Estrogen receptor β. *Archives
      of Pathology and Laboratory Medicine*, *135*(1), 63-6. doi:
      10.1043/2010-0448-RAR.1

Boundary Issues: Is what my therapist doing appropriate or inappropriate?
Christa Herrera

Mentor: Patricia Owen, PhD
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The public holds misconceptions about the process of psychotherapy and what constitutes professional conduct in therapy. Yet little research has examined the public's awareness about boundary issues that could occur in psychotherapy and could potentially compromise effectiveness of psychotherapy and harm clients. The purpose of this study is to assess laypersons' awareness of boundary issues psychotherapy through the construction of new methodology, which requires participants to judge the appropriateness or inappropriateness of therapist conduct in scenes of psychotherapy edited from popular movies. A total of 10 undergraduate students judged the appropriateness of 7 scenes of therapist-client psychotherapy interactions and provided rationale for their judgment. Results showed that participants were unable to identify breaches of confidentiality but able to identify an inappropriate dual relationship, inappropriate use of touch, appropriate out-of-office contact, and unprofessional psychotherapy. Conclusions were drawn about the potential of popular movies to correct misconceptions about psychotherapy and psychotherapists.

Psychotherapy or "talk therapy" is a process in which emotional and/or behavioral problems are treated through psychological techniques. Psychotherapy entails a professional relationship between a client and a helping professional who has

received education and training in any number of diverse therapeutic modalities. Regardless of therapeutic model espoused, there are professional and ethical standards in place to ensure client well-being within a professional therapeutic relationship (Lott, 1999). In the United States, the American Psychological Association (2010) delineates the following five general ethical principles to which all psychologists who practice psychotherapy must adhere: beneficence and non-maleficence, fidelity and responsibility, integrity, justice, and respect for people's rights and dignity. Within these general principles, specific therapeutic practices termed boundary violations and boundary crossings have been identified which could potentially violate ethical and professional codes and jeopardize effective client-therapist interaction (Lott, 1999; Pope, Tabachnick & Kieth-Spiegel, 1987; Zur & Nordmarken, 2011).

A boundary violation is defined as a transgression of the psychotherapeutic framework resulting in the exploitation of the client (DeMijolla, 2005). The boundary violations that are codified in most helping professional organizations include failure to protect a client's confidential information, engagement in an additional type of relationship with a client other than the therapeutic one, and sexual misconduct with a client (DeMijolla, 2005; Zur & Nordmarken, 2004; Texas State Board of Examiners of Psychologists, 2016). Boundary crossings are defined as deviations from the psychotherapeutic framework that have the potential to exploit the client and the integrity of therapeutic relationship. Examples of boundary crossings include non-sexual physical contact with clients (touch intervention), therapist self-disclosure, out-of-office contact with a client, and unprofessional therapist conduct during therapy sessions. Boundary crossings may or may not be included in professional standards of helping organizations as many can be subject to interpretation as a function of the context of a therapeutic encounter. For example, touch intervention (e.g., a pat on the shoulder from the therapist) can convey different meanings as a client could perceive the touch as a supportive gesture or as an aggressive or sexual gesture (Zur & Nordmarken, 2004). Hence, the use of touch in

psychotherapy is controversial with some arguing it should be avoided as the "symbolic weight of touch is too ambiguous for both client and therapist" (Lott, 1999, p. 2) and others arguing that therapeutic touch when used appropriately could promote empathy and comfort and could facilitate effective therapy (Zur & Nordmarken, 2004). However, most psychologists would agree that touch used unexpectedly or without client consent might cross a boundary constituting inappropriate psychotherapy. In a similar fashion, therapist self-disclosure can be appropriate or inappropriate. When used appropriately therapist self-disclosure can facilitate a line of conversation between client and therapist, while inappropriate self-disclosure – when excessive or too personal - can burden the client with the therapist's issues (Lott, 1999; Zur & Nordmarken, 2004). Above all self-disclosure should be done for the benefit of the client, and not for the benefit of the therapist such as ego needs.

Depending on context, out-of-office therapeutic contacts could be viewed as appropriate when used as part of the therapeutic plan or inappropriate when out-of-office therapeutic contact occurs spontaneously. For example, a therapeutic session at a restaurant could be deemed to serve a therapeutic purpose, if the client experienced an eating disorder and the therapist modeled appropriate eating behaviors. A therapeutic contact at a restaurant with a client who experiences issues unrelated to eating or to restaurants might not serve a therapeutic purpose and would be an inappropriate boundary crossing. Unprofessional conduct on the part of the therapist provides another means by which client progress can be impeded and may constitute a boundary issue. Unprofessional conduct can range from the therapist engaging in illegal or morally questionable activities such as consuming drugs with a client, falling asleep during a therapy session, or eating lunch during a therapy session.

Given that boundary violations and boundary crossing may occur in the psychotherapeutic setting and compromise treatment effectiveness, it is important that current or future consumers of psychotherapy develop an awareness of what constitutes appropriate therapist conduct. Unfortunately, the

public appears to holds several misconceptions about therapy and therapists. Mitchell (2013) points to five misconceptions people hold about therapists, such that they cannot be trusted, are incompetent, will fix the client's problems, will become extremely involved in their client's life, and will be romantically involved with their client. People also possess misconceptions about the psychotherapeutic process and outcome as Furnham (2009) states that the general public believes in the existence of a total cure and holds unrealistic expectations about psychotherapy.

Research Question

As there are numerous professional and ethical standards which govern the practice of psychotherapy to protect client welfare, a key question concerns whether the general public is knowledgeable of these standards. It is the purpose of this study to assess layperson's awareness of appropriate and inappropriate boundary issues that could compromise effective psychotherapy and carry the potential of harm to the client.

Method

Participants

Participants consisted of undergraduate students who were attending a small private university in the Southwest region of the United States. Participants were sent a link via email to an online test, the Psychotherapy Assessment Test. Participants were informed that the test assesses awareness of appropriate and inappropriate therapist- client interactions and that they would be asked to judge the appropriateness of different psychotherapy scenes taken from popular movies. Participants were informed that the test would last about 30 min and that their responses would be anonymous.

Psychotherapy Assessment Test

The Psychotherapy Assessment Test (PAT) consisted of scenes from popular movies that depicted appropriate and inappropriate therapist-client interactions in an outpatient setting. The scenes were selected from contemporary (1990 to present day) full feature length English language movies that featured outpatient psychotherapy scenes. Movies were identified from internet data bases using the search words of "psychotherapy",

"psychologist", "therapy", and "therapist". All movies were available for viewing in the United States. Two judges (clinical psychologist and psychology undergraduate student) independently viewed the movies' psychotherapy scene(s) and categorized them as either appropriate or inappropriate therapist-client interactions. A psychotherapy scene was judged as appropriate, if the therapist implemented effective psychotherapeutic techniques for the benefit of the client and did not engage in boundary issues that could potentially harm the client or negatively impact the therapeutic process. A total of three scenes each lasting 2 to 3 min were selected as appropriate. These scenes and their descriptions are found in Appendix A. Psychotherapy scenes were judged as inappropriate, if the scene depicted a boundary issue that could potentially harm the client or compromise effective psychotherapy. Inappropriate therapist-client interaction scenes included boundary issues related to breaches of confidentiality, dual relationships, inappropriate touch, and inappropriate self-disclosure. A total of six scenes each lasting 2 to 3 min were judged to meet criteria for inappropriate psychotherapy. These scenes and their descriptions are found in Appendix B.

Procedure

After reviewing and agreeing to the consent form, participants completed a demographic questionnaire which included questions about gender, age, and major. Participants then completed the PAT which contained a background section, an instruction page, seven randomly ordered appropriate and inappropriate psychotherapy scenes, and an optional feedback page. The background section included a definition of psychotherapy accompanied by text and video examples of appropriate and inappropriate therapist-client interaction in psychotherapy. The instruction page informed participants that they would view seven psychotherapy scenes and decide whether therapist conduct was appropriate or inappropriate. They would additionally provide rationale for their decision. Participants were informed that each of the video scenes is preceded by a background text slide, an explanatory video, or both to provide

background information about the characters and plot. The optional feedback page consisted of stills from the video scenes accompanied with the correct answers. A clinical psychologist and psychology undergraduate student constructed the correct and incorrect answers for each video scene which was provided in the feedback page (see Appendix C). Scoring consisted of comparing the participant's response to the correct and incorrect answers.

Results

Due to sample size ($N = 10$), frequencies were calculated for correct and incorrect answers for all inappropriate and appropriate psychotherapy scenes (See Table 1). The majority of participants correctly judged as inappropriate the scenes of psychotherapy exhibiting an inappropriate dual relationship (90%, $N = 9$) an inappropriate touch (70%, $N = 7$), unprofessional psychotherapy (60%, $N = 6$), and judged correctly as appropriate the out-of-office contact (80%, $N = 8$). The scene exhibiting a confidentiality breach was incorrectly judged as appropriate (80%, $N = 8$), while scenes showing professional psychotherapy and inappropriate self-disclosure had equal incorrect and correct answers (50%, $N = 5$). The majority of participants (80%, $N = 8$) proceeded to the feedback section of the PAT to obtain the correct answers after the test completion.

Table 1

Frequency of Incorrect and Correct Answers for Appropriate and Inappropriate Psychotherapy

	Correct		Incorrect	
Boundary Issue	*N*	%	*N*	%
Inappropriate Dual Relationship	9	90	1	*10*
Inappropriate Touch	7	70	3	30
Inappropriate Self-Disclosure	5	50	5	50
Inappropriate Psychotherapy	6	60	4	40

Inappropriate Confidentiality	2	20	8	80
Appropriate Out-of-Office Contact	8	80	2	20
Appropriate Psychotherapy	5	50	5	50

Note. N = 10

Discussion

This study found that the majority of participants were aware of three of the boundary issues that could negatively impact therapy. Participants correctly judged as inappropriate the psychotherapy scenes showing an inappropriate dual relationship, inappropriate use of touch, and unprofessional therapist conduct. The majority of participants were also correct in their judgement of the out-of-office therapist-client contact as appropriate given the context in which the therapeutic contract occurred. However, the majority of participants were unaware that the scene depicting a breach of confidentiality was inappropriate. With reference to the boundary crossing of self-disclosure, half of the participants failed to note that the therapist's self-disclosure was excessive and too personal. Half of the participants also failed to identify as appropriate the scene where the therapist implemented an effective technique in therapy.

The result that majority of participants failed to note a confidentiality breach as inappropriate could be explained by their unawareness that this is a boundary issue or could be explained by the nature of the relevant video scene. For example, in the confidentiality video scene, the open door between the therapist's office and his waiting room could have been too subtle for participants to notice. Similarly, failing to detect therapist self-disclosure as inappropriate may be due to lack of awareness of this boundary crossing or lack of understanding from the brief video scene that a therapy session was being held. Lack of background information such that a sound therapeutic relationship was already established in the scene exhibiting professional psychotherapy could explain why half of the participants were not

aware that the therapist's technique was appropriate. It was interesting to note that the majority of participants in this study opted for receiving feedback about their answers showing perhaps a desire to be educated on this topic.

These results partially confirm findings from other researchers (Furnham, 2009; Mitchell, 2013) stating that the public holds misconceptions about appropriate psychotherapeutic techniques and professional issues. Of the many factors contributing to these misconceptions, the distorted portrayals of psychotherapy and therapists in popular movies may have influenced the participant's incorrect answers. Several studies corroborate this by revealing that 50% of therapists committed a boundary violation and of those 25% committed a sexual boundary violation in movies. The prevalence of boundary violations in movies featuring psychotherapy can desensitize the public and lead them to expect the presence of boundary violations and/or crossings in therapy. With that in mind, cinema's frequent use of inaccurate simplified cures such as the "cathartic cure" can also lead the public to hold idealized expectations of the psychotherapeutic process and unrealistic ideas about therapeutic techniques (Gharaibeh, 2005; Gabbard, 2001; Orchowski, Spickard, & McNamara, 2006).

Movies, however, can be useful to correct misconceptions. Young (2012) purposed that the people use cinema as a source for information about psychotherapy dynamics because in real life confidentially agreements between therapist and client leave others unaware of what happens in the psychotherapy room. Owen (2007) found that viewing accurate videos depicting people with schizophrenia has the potential to counteract negative stereotypes about mental disorders. Hence, a methodology such as the PAT which feature both appropriate and inappropriate video scenes of psychotherapy could as well counteract negative beliefs about therapist conduct and correct misconceptions that the majority of the public holds. The majority of therapists do not become social friends with a former client, discuss clients with their friends, become sexually involved with a client, or interact

with clients in non-therapy related out-of-office events (Pope, Tabachnick, & Keith-Spiegel, 1987).

       Limitations of this study include the small sample size and reliance on undergraduate students as participants. Future research can increase sample size to include individuals with different educational levels to validate and evaluate whether the methodology of providing video scenes of psychotherapeutic professional standards is an effective method to correct misconceptions about therapist conduct and appropriate psychotherapy.

References

American Psychological Association. (2010). Ethical principles of psychologists and code of conduct: Including 2010 amendments. *American Psychological Association,* Retrieved from http://www.apa.org/ethics/code/index.aspx

Black, T., Haines, R., Washington, D. (Producers), & Washington, D. (Director). (2002).   *Antwone Fisher* [motion picture]. United States: Fox Searchlight Pictures

Calder, K., Marino, F., Neurauter, J. (Producers), & Levine, J. (Director). (2008). *Wackness* [motion picture]. United States: Sony Pictures

Casady, V., Black, T. (Producers), & Frankel, D. (Director). (2012). *Hope Springs* [motion picture]. United States: Mandate Pictures

DeMijolla, A. (Ed.). (2005). *International dictionary of psychoanalysis.* Farmington Hills, MI: Thomson Gale

Foster, G. (Producer), & Shelton, R. (Director). (1996). *Tin Cup* [motion picture]. United States: Regency Enterprises

Furnahm, A. (2009). Psychiatric and Psychotherapeutic Literacy: Attitudes to, and knowledge of, psychotherapy. *International Journal of Social Psychiatry, 55,* 525-537. DOI:10.1177/0020764008094428

Gabbard, G. O. (2001). Psychotherapy in Hollywood cinema. *Australasian Psychiatry*, *9*, 365-369. DOI: 10.1046/j.1440-1665.2001.00365.x

Gharaibeh, N. M. (2005). The psychiatrist's image in commercially available American movies. *Acta Psychiatrica Scandinavica*, *111*, 316-319. DOI:10.1111/j.1600-0447.2004.00489.x

Komrad, M. S. (2013). Hope springs: A new spring in depicting therapists and treatment by Hollywood? *Journal of the American Academy of Psychiatry and the Law, 41,* 152-153. Retrieved from http://www.jaapl.org/content/41/1/152.full.pdf+html

LeBeau, R. (2011, October). New movie portrays cancer perceptively but psychology offensively. *Psychology in Action,* Retrieved from http://www.psychologyinaction.org/2011/10/24/new-movie-portrays-cancer-perceptively-but-psychology-offensively/

Lott, D. A. (1999, May). Drawing boundaries: Forget sex. It's the smaller intimacies, sometimes even commonplace courtesies that present the biggest dilemmas between clients and therapists. *Psychology Today,* Retrieved from https://www.psychologytoday.com/articles/199905/drawing-boundaries

Macfarlane, S. (2004). Antwone Fisher: How dangerous is 'Dr. Wonderful'? *Australasian Psychiatry*, *12*, 176-178. doi:10.1111/j.1039-8562.2004.02080.x

Milchan, A. (Producer), & Forster, M. (Director). (2005). *Stay* [motion picture]. United States: Regency

Mitchell, D. (2013, May). Five lies people learn from the media about therapy. *Good Therapy,* Retrieved from http://www.goodtherapy.org/blog/five-lies-clients-learn-from-media-about-therapy-0508134

Orchowski, L. M., Spickard, B. A., & McNamara, J. R. (2006). Cinema and the valuing of psychotherapy: Implications for clinical practice. *Professional Psychology: Research and Practice*, *37*, 506-514. doi:10.1037/0735-7028.37.5.506

Owen, P. (2007). Dispelling myths about schizophrenia using film. *Journal of Applied Social Psychology, 37,* 60-75. DOI:10.1111/j.0021-9029.2007.00147.x

Pope, K. S., Tabachnick, B. G., & Kieth-Spiegel, P. (1987). Ethics of practice: The beliefs and behaviors of psychologists as therapists. *American Psychologist, 72,* 993-1006 doi/10.1037/0003-066X.42.11.993

Rogen, S., Goldberg, E., Karlin, B. (Producers), & Levine, J. (Director). (2011). *50-50* [motion picture]. United States: Summit Entertainment

Schwary, R. (Producer), & Redford, R (Director). (1980). *Ordinary People* [motion picture]. United States: Paramount Studios

Shaw, K. (Producer), & Goldberg, H. (Director). (2007). *Numb* [motion picture]. United States: Image Entertainment

Streisand, B., Karsch, A. S. (Producers), & Streisand, B. (Director). (1991). *Prince of Tides* [motion picture]. United States: Columbia Pictures

Thomason, T. (2013). Recommended movies and television programs featuring psychotherapy and people with mental disorders. *Counseling and Wellness, 4,* 1-24 Retrieved from https://works.bepress.com/timothy_thomason/90/

Young, S. D. (2012). Psychopathology, psychotherapy and psycho – psychologists and their patient in the movies. *Psychology at the Movies* (pp. 43-60). West Suxxex, United Kingdom: John Wiley

Young, S. D. (2013, February). Accuracy, distortion and truth in Silver Linings Playbook: The power of love in movies, all audience members included. *Psychology Today,* Retrieved from

https://www.psychologytoday.com/blog/movies-and-the-mind/201302/accuracy-distortion-and-truth-in-silver-linings-playbook

Zur, O. & Nordmarken, N. (2011). To touch or not to touch: Rethinking the prohibition on touch   in psychotherapy and counseling: Clinical, ethical & legal considerations. Retrieved from   http://www.zurinstitute.com/touchintherapy.html

Appendix A

Appropriate Psychotherapy Movie Scenes and Descriptions

The video scene used to exemplify appropriate psychotherapy was an outpatient therapy session from *Hope Springs* in which the therapist succinctly explained the goals of couple's therapy to the clients. Video scenes from the movies *Ordinary People* (Schwary & Redford, 1980) and *Numb* (Shaw & Goldberg, 2007) were selected to be test items. In *Ordinary People* (Schwary & Redford, 1980), as an appropriate example, the therapist effectively utilized a therapeutic technique after establishing a sound therapeutic relationship with the client. This occurred after the client revealed feeling unaffected by the cold relationship with his mother. *Numb* (Shaw & Goldberg, 2007) was judged as appropriate psychotherapy in that the out-of-office contact between therapist and client was part of the therapist's treatment plan. In this scene the therapist holds a therapy session at a cemetery, in order to ease his anxiety towards death.

Appendix B

Inappropriate Psychotherapy Movie Scenes and Descriptions

A video scene from *Wackness* (Calder, Marino, Neurauter, & Levine, 2008) was used to exemplify inappropriate psychotherapy. In this scene, the therapist engaged in illegal buying and selling of drugs with his client. Inappropriate boundary issues (viz., breach of confidentiality, dual-relationship, self-disclosure, and touch) were presented in scenes from *Stay* (Milchan & Forster, 2005), *Tin Cup* (Foster & Shelton, 1996), *Prince of Tides* (Streisand & Karsch, 1991), and *Antwone* (Black, Haines, & Washington, 2002). A scene from *Stay* (Milchan & Forster, 2005) showed a therapist who risked client confidentiality by not closing the door during a therapy session. A dual relationship was exemplified in a scene from *Tin Cup* (Foster & Shelton, 1996) whereby a therapist offered to barter services (therapy for golf lessons) with the consequence of creating a business relationship with the client. A scene from *Antwone* (Black, Haines, & Washington, 2002) portrayed inappropriate psychotherapy in that the therapist engaged in self-

disclosure about his marital problems to his client. Inappropriate psychotherapy was exhibited in a scene from *Prince of Tides* (Streisand & Karsch, 1991) in which a therapist engaged in inappropriate touch by embracing a client without consideration for the potential of the client's misinterpretation. A scene from *50-50* (Goldberg, Rogen, Karlin & Levine, 2011) exemplified unprofessional behavior in that the therapist adopted a less than serious demeanor, compromised client confidentiality, and appeared unsure of her professional competence

Appendix C

Correct and Incorrect Answers to Psychotherapy Scenes
Stay
Dr. Foster did not close the door when his client, Henry, entered the office and ran the risk of someone overhearing or interrupting the session. Dr. Foster's conduct qualifies as a boundary violation, more specifically a breach of confidentiality. A boundary violation is therapist conduct that exploits or harms the client. A therapist's failure to protect client information in any circumstance harms the client and is considered a breach of confidentiality. In the event that the client threatened to seriously harm others or themselves, breaking confidentiality would be necessary.
Tin Cup
Dr. Griswold purposed to exchange therapy sessions for golf lessons from her client, Roy, because he did not have the means to pay for therapy. Dr. Griswold's conduct qualifies as a boundary violation, more specifically a dual relationship. A boundary violation is therapist conduct that exploits or harms the client. Dr. Griswold engaged in the barter of services that created a non-therapeutic relationship, while she was still engaged as his therapist. The presence of a non-therapy relationship that occurs during psychotherapy contaminates the therapeutic process and confuses the client about his/her role in therapy.
Ordinary People
Dr. Berger's conduct when addressing Conrad's inability to express his emotions is considered appropriate therapy in that

after establishing a sound therapeutic relationship with Conrad, he engaged in an effective technique to challenge Conrad's inability to express a deep-seated feeling.

Antwone

Dr. Davenport shared personal information about his marriage to his client, Antwone, during a therapy session. Dr. Davenport's conduct could be considered a boundary crossing as he engaged in inappropriate self-disclosure. A boundary crossing is a deviation from the standard therapeutic framework. While self-disclosure can be appropriately used to facilitate therapist efforts in opening a line of communication with the client, excessive self-disclosure or revealing personal problems can create a role reversal between client and therapist and is thus, considered inappropriate.

Prince of Tides

Dr. Lowenstein's decision to hug Tom, after he revealed the rape and started crying could be considered a boundary crossing. A boundary crossing is a deviation from the standard therapeutic framework. While touch can be appropriately used with consent to foster trust and empathy, touch present in therapy without consent is inappropriate and may result in undesired or harmful reactions. Dr. Lowenstein initiated the touch with her client without his consent and may have well triggered an angry, depressive, or attachment reaction.

50-50

Katherine, the young therapist in training, is unprofessional in her conduct. She was unprepared for her session with Adam, she appeared unsure of herself as a therapist in her less than serious demeanor, and she compromised client confidentiality by not obtaining Adam's consent to be included in her dissertation. Her behavior could be viewed as unprofessional because it appeared to undermine her professional authority which could detract from effective therapy.

Seasonal variation of sexual assaults in Texas: An analysis of reported crime from 1995 to 2014

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The purpose of this study is to examine the correlation between seasons of the year and rape in Texas over a 19 year period. We analyze data from the Index Crime Report Analysis, a database that compiles monthly reports from police agencies in Texas that contribute to the Texas Uniform Crime Report (UCR). This study demonstrates that a relationship exist between seasons of the year and the incidence of rape. Additionally, the results of this study supports the theory that summer is the season when rapes are the most likely to take place.

Introduction

The incidence of violent crime in a community usually receives a significant amount of media attention. Sexual assault, or rape, is a serious violent crime directly impacting women, men, children, and the elderly. No one is immune from being victimized. It could be noted too that the crime of rape has a history of victim blaming. It has long been a theory that environmental factors such as hotter temperatures and/or day light savings are significant contributors to the increasing numbers of violent crimes during the summer months. In this study we will be analyzing the Uniform Crime Reports (UCR) to compare the incidence and rate of violent crime in summer months (June-August) to the other seasons (months) of the year to identify any

correlations between rapes in Texas and seasons of the year. What season(s) of the year are the reported incidence and rates of rape the highest? Do the summer months of June, July or August have the highest incidence and rate of rape compared to the other months and season of the year? Or as some writers suggest do the fall months of September, October and November have the highest incidence and rates of rape?

Literature Review

Violent crimes consist of murder and non-negligent manslaughter, robbery, aggravated assault, and forcible rape. Offenses that involve force or threat of force are considered a violent crime (FBI, 2014). While the details of murders and robberies are covered in the news, rape has only recently been discussed more openly. Rape is not merely about sex but the expression of violence, aggression, and domination of another human being. As of 2013, rape has received an updated definition in the UCR to read "Penetration no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim (Hagan, 2017, p.221)." The new definition has made it inclusive to men and boys and has since allowed more cases to be prosecuted under state law.

There are multiple scenarios of rape incidents and a very common example is acquaintance rape in which the victim knows the perpetrator personally in the form of a date, classmates, neighbors, friends, and family. About 70% of rape victims knew their attackers compared to about half of all violent crime victims. (Rape, Abuse, and Incest National Network {RAINN}, 2015). Films such as the *Invisible War* have been created to reveal the U.S. military's secret rape epidemic and the attempt to cover up these crimes. In 2011 there were an estimated 22,800 violent sex crimes in the military. Among all active-duty female soldiers, 20 percent report that they have been sexually assaulted. Female soldiers age 18 to 21 accounted for more than half of the victims (Department of Defense, 2011).

Historically, there have been thousands of victims of sexual assault in the military who have been pushed out of active

duty service and blacklisted by the U.S. Armed Forces. Often times they are dishonorably discharged which can leave them with no or reduced benefits, poor job prospects, and a lifetime of stigma. These backlashes often follow for speaking out and seeking justice yet it has been shown repeatedly that the military wants to put as much distance between itself and victims of rape (Thompson, 2016).

College campuses are another environment susceptible to acquaintance rape, and 1 in 5 women say they were sexually assaulted during the past 4 years they attended college. Nearly two-thirds of victims say they had been drinking alcohol just before the incident rendering them incapable of consent (Washington Post Kaiser Poll, 2015) [Texas laws on consent].

In 1986 the Clery Act was enacted after Jeanne Clery was raped and murdered in her residence hall room by a fellow student. The Clery Act is mandated by law for all colleges and universities, private and public, to disclose campus safety information and basic follow guidelines for handling incidents of sexual violence and emergency situations (Clery Act).

The importance of rape awareness & prevention is crucial for the security of citizens and students alike. Victims of sexual assault are three times more likely to suffer from depression, four times more likely to contemplate suicide, and six times more likely to suffer from post traumatic stress disorder (RAINN, 2015). In the last three years rape has been pushed to the top of the Educators Administration's agenda on college campuses. With the help of victims coming forward it has received attention from the White House with President Obama's administration taking steps to provide guidance to every school district, college, and university that receives federal funding. The White House Task Force was established to recommend ways to protect students from sexual assault and to work with colleges and universities on developing better practices on how to respond to and prevent sexual assault (Somander, 2014).

In the majority of rape cases alcohol seems to be a main contributor to the problem (Bliss, 2013). Alcohol can be bought just about anywhere from a grocery store to a gas station and, as

any high school or underage college student knows, it is easily accessible. While alcohol's relationship with rape has been well documented, some writers are drawing the association between college football games and the incidence of rape (Lindo, Siminski &, Swensen, 2015). It is no secret that drinking alcohol and college football go hand in hand. During the fall (months of September, October and November) tail gate parties and alcohol are a prominent part of any campus hosting a college football game. This leads to the question, are the reported incidences of rape higher during the fall season than in other seasons or months of the year?

Hypotheses

For this study the following hypotheses has been developed:

Hypotheses 1: The fall months of September, October, and November will have the highest incidence and rate of rapes than other months of the year.

Hypotheses 2: The winter months of December, January, and February will have the lowest incidence and rate of rapes than the other season of the year.

For this study the independent variable will be season of the year and the dependent variable is sexual assault rates and numbers of reported rapes.

The fall months are defined as September, October, and November.

The winter months consist of December, January, and February.

The spring months consist of March, April, and May.

The summer months consist of June, July, and August.

Prior to 2013 the definition of rape was "The carnal knowledge of a female forcibly and against her will" (FBI, 2012). Beginning in 2013 the revised UCR definition of rape is, "Penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim. Attempts or assaults to commit rape are also included; however, statutory rape and incest are excluded" (FBI, 2013).

Methodology

The Uniform Crime Reports (UCR) provides a reliable set of criminal justice statistics for law enforcement administration, operation, and management. It compiles data from monthly law enforcement reports of individual crime incident records f oomver 18,000 law enforcement agencies in the United States. The UCR includes data on murder, robbery, rape, aggravated assault, burglary, arson, larceny theft, and motor vehicle theft. The UCR examines each report it receives from a police agency to ensure accuracy and identifies any unusual fluctuations in an agency's crime counts comparing monthly reports to previous submissions with similar agencies. The UCR program presents crime counts for the nation, regions, states, counties, cities, towns, tribal law enforcement, colleges, and universities. Overall, the UCR contains data on actual counts of offenses reported by law enforcement agencies. As of 2013 the definition of rape has changed now to include males. This study will focus on UCR data from the state of Texas. The Uniform Crime Reports for sexual assaults from 1995 to 2014 will be analyzed for this study and categorized into four seasons. This will allow a 19 year overview of each individual season and a compilation of yearly sexual assault reports. Analyzing the crime rate data includes obtaining the number of reported rapes and dividing that number in to the estimated population for the state of Texas for that year. After calculating the number it is then multiplied by 100,000 to establish the crime rate. The Texas population was estimated from the US Census Bureau that reports the estimated population every year.

Data Analysis

The data shows that from 1995 to 2012 there is a gradual decrease in reported rapes from 38.1 in 1995 to 28.6 per 100,000 population in 2013. With the new rape definition implemented in 2013 reported rapes in 2014 increased to 42.5 per 100,000 population. The difference from 2013 to 2014 is a total of 4,023 cases. From 2014 onward the number of reported rapes should be higher than in previous years since the definition of rape has

become more inclusive. In Table 1 below the annual number of
reported rapes and crime rate per 100,000 population is displayed.

Table 1 Number and rates of reported rapes by year		
Year	Number of rapes reported in Texas	Crime rate per 100,000 population
1995	7,119	38.1
1996	7,902	41.6
1997	7,789	40.2
1998	7,837	39.8
1999	7,629	38.0
2000	7,851	37.7
2001	8,191	38.2
2002	8,541	39.1
2003	7,986	36.3
2004	8,401	37.3
2005	8,505	37.1
2006	8,406	35.9
2007	8,430	35.4
2008	8,004	33.1
2009	8,286	33.5
2010	7,626	30.2

2011	7,445	29.2
2012	7,692	29.6
2013	7,443	28.6
2014	11,466	42.5

All reported rape cases from 1995 to 2014 in the state of Texas are reflected in Table 2 which were collected by month of the year and by seasons. Summer overall has the highest rape case with 44,371 reported, spring's rape reports in total were 42,968, while fall is 40,599 are extremely close in range. The winter consisting of December of the previous year and January, February of the next year. The data starts in Spring of 1995 and continues to Fall 2014. With winter missing January and February of 2015 and winter of 1995 it has accumulated the lowest rate of 34, 827 total reported rapes. When looking at the data it clearly shows that summer and spring are the highest in total, with the summer seasons having the most reported rapes. In Table 2 provided below one can observe how close each season is to the other

Table 2 Reported rapes by season	
1995- 2014 seasonal distribution	Rape reports
Spring	42,968
Summer	44,371

Fall	40,599
Winter	34,827

The Graphs A, B, and C listed in Appendix A displays the crime rate by year and season. Starting from spring 1995 to fall 2014. (Note that because of the lack of data from December 1994, data for winter 1995 is unavailable in Graph A.) The graphs allows for a visual guide to show how many rapes per 100,000 population are reported by season and year. As one can see from this data summer usually is the season of the year with the most reported rapes rivaled closely by the spring months.

It was hypothesized that the fall months would have the highest rate and incidence of rape. This hypothesis was not supported by the data. It was also hypothesized that the winter months would have the lowest rate of reported rapes and this was supported by the data.

Limitations and Recommendations

Limitation of this study include that, while some crimes such as murder or theft are reported to the police, we do not know how many rapes go unreported. In 2014 a national survey suggests that nearly 64% of all rapes were not reported to the police. According to this report rape is the most under reported violent crime, the lack of reporting can affect the accuracy of data (Truman and Langton, 2015). The current study is an analysis of a 15 year trend. Going back 20 to 25 years would provide for a longer trend analysis. The Texas Uniform Crime Report bases its data from different agencies from the state of Texas. We do not know which agencies did not report their data.

The optimal database, compared to the UCR, is the National Victimization Survey (NCVS). The NCVS is the nations primary source of information on criminal victimization in the United States. Each year data is collected from 90,000

households collecting nearly 160,000 persons, this is larger then the UCR which collects data from a 100,000 scale. Each household is interviewed twice to collect frequency, characteristics, and consequences of criminal victimization. The NCVS contains data on nonfatal personal crime, such as sexual assault and robbery. The NVCS can also describe impact and characteristics of violent offenders, this includes age, sex, race, education level and income (Bureau of Justice Statistics, 2014).

The hierarchy rule is still implemented by the UCR, the hierarchy rule is when the UCR database counts only the most serious offense and ignores the others offenses. A criminal charged with multiple crimes during a single incident, for example a person commits a rape and a murder this will be documented in the UCR as murder. It applies only to the crime reporting process and does not have an effect on the prosecutorial charges (UCR, 2004).

Future studies could focus on a longer trend analysis for 20 to 25 years, victimization studies that include the month of the year the crime occurred and the circumstances surrounding the crime would be helpful.

Conclusion

The data show that the summer season is the leading season for sexual assault incidences, further corroborating previous evidence that indicated that violent crimes are more prominent in hotter seasons. The fall season did not exhibit a greater rate of sexual assaults incidences when compared to the summer season. However, it should be noted that sexual assault rates in the spring approximate but do not equal sexual assaults in the summer season. Additionally, we find a gradual decrease of sexual assault incidences in the fall season. Unsurprisingly, the theory stating that environmental factors such as temperature change can contribute to sexual assault seems viable. Awareness about seasonal effects on sexual assault rates can improve rape prevention strategies and prepare authorities for the increased influx of reports

Discussion

The data from 2013 has shifted the accuracy of UCR database, future research should focus on the incidence of rape on college campuses. Many rape cases go unreported. Creating and disseminating a survey tailored to the millennial age group, within colleges and universities, could help generate more specific research on this subject. It can include questions pertaining to how college campuses handle rape cases and awareness of victim's rights. Recording data from NCVS one can also obtain information about a broader demographic of victims in terms of age, race, gender and experience with the criminal justice system. Focusing on members of the millennial generation will allow for an accessible target group to launch focus group studies and provide support to rape victims. With the predicted increase in rape reports this allows for a possible solution to reduce the rape epidemic. From creating task forces and promoting awareness communities can help reduce rapes and sexual assaults.

References

Abney, A.J., Trevino, C, & Cohen, J. (2016). The Effect of Alcohol Sales and Seasonal Variations on the Incidence of Violent Crime in Texas. Paper presented at the Meeting of the National Social Science Association, *National Technology and Social Science Conference*. Las Vegas, NV.

Bliss J. (2013). Police, experts: Alcohol most common in sexual assaults. *USA Today*.

Hagan, F.E. (2017) *Criminology: Theories, Methods & Criminal Behavior* (9th ed). Sage: Los Angeles.

Lauritsen L. J., White N. (2014). Seasonal Patterns in Criminal Victimization Trends. *U.S. Department of Justice Special Report*.

Lindo, M. J., Siminski M. P., Swensen D. S. (2015). College Party Culture and Sexual Assault. *NBER Working Paper Series*.

Rape Abuse & Incest National Network. (2015). Who are the victims?, RAINN, *Statistics*.

American Medical Association. (2014).Sexual Assault: The Silent, Violence Epidemic. *Infoplease*.

Somander T. (2014). President Obama Launches the "It's On Us" Campaign to End Sexual Assault on Campus. *The White House Blog*.

Thompson, M. (2016, May) In the military victims of sexual abuse sometimes suffer twice, *Time magazine, issue,* (pp. 2) (P 16)

Uniform Crime Report. (2004). UCR Frequently Asked Question. What is the Hierarchy Rule. *FBI. Gov*.

Uniform Crime Report. (2014). Frequently Asked Questions about the Change in the UCR Definition of Rape. *FBI.Gov.*

Ziering A. &, Dick K., (2015). The Hunting Ground. United States. *The Weinstein Company.*

Appendix A
Graphs A-C for Reported Rapes per 100,000 population by Season: 1995- 2014

Graph A: Crime Rate 1995-2000

Graph B: Crime Rate 2001 - 2007

Graph C: Crime Rate 2008-2014
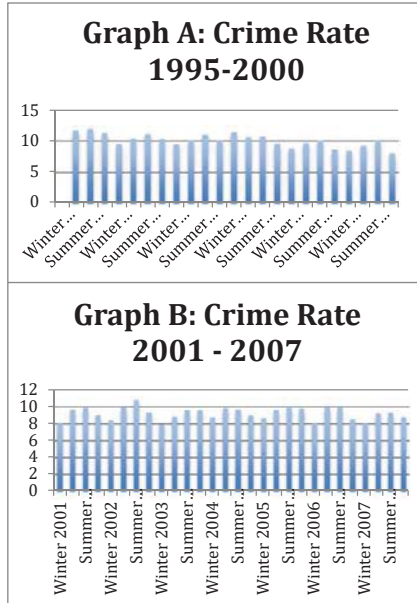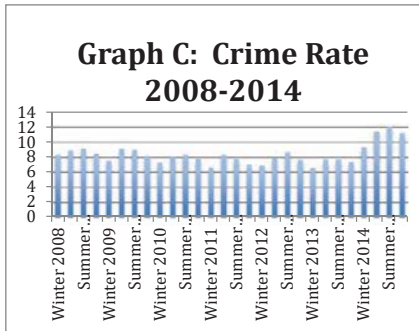
Changes in Species Biodiversity due to Open House Events at Robber Baron Cave, Alamo Heights, TX

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According to the studies related to protecting cave ecosystems, Robber Baron Cave located in San Antonio, TX, is generally a healthy habitat for local fauna and the natural ecological processes (TCMA 2016) Although there are numerous protective measures implemented, two arachnids unique to the cave, the Robber Baron cave harvestman (Texella cokendolpheri) and the Robber Baron Cave spider (Cicurina baronia) have been listed as endangered by the US Fish and Wildlife Service. The purpose of our study was to investigate how the official Open House Events, held every 18 months in which 450-500 people are able to tour the cave, affect the species richness of the cave. To accomplish this, we conducted a biological survey of the cave once a month for 22 months to determine if there were fluctuations in biodiversity related to these Open House events. Our results indicated no significant relationship between the months revolving around the Open House Events and the species richness, suggesting that these events do not have a significant negative impact on species abundance and diversity. Given our limitations of the study involving data from only two Open House Events, further investigation regarding natural species interactions is recommended.

Introduction

Robber Baron Cave in San Antonio, Texas, is well known for its karst features and native species such as the *Ceuthophilus cunicular*, more commonly known as the cave cricket (Weckerly 2012), and Robber Baron Spider, or the *Cicurina baronia* (TCMA 2016). Cave organisms such as these are subject to endangerment because of the fragility of the entire ecosystem.

The organisms within the cave can be classified into two categories, troglobites and trogloxenes (Baker et al 2015). Crickets and bats are known as trogloxenes, or a species that leave to feed outside the cave but return to it for shelter. In doing so, these organisms are responsible for bringing nutrients into an otherwise closed cave ecosystem (Weckerly 2012). The species that depend on trogloxenes for nutrients are known as troglobites; Robber Baron is home to at least ten different types of troglobites such as the previously mentioned *Cicurina baronia*, the Robber Baron Cave spider (TCMA 2016) and the *Texella cokendolpheri*, also known as the Robber Baron Cave harvestman. The cave cricket within this cave is also known as a keystone species, or a species with a profound impact on the environment it inhabits in that its presence maintains the ecosystem (Baker et al 2015). This is because much of the cave relies on crickets to bring nutrients into the cave as the ecosystem within depends on outside sources for nutrient flow. An example of this role would be the troglobites feeding on the eggs of the trogloxenes or feeding on the dead carcasses (Taylor et al 2008). Some other sorts of organisms that can be found in this cave periodically are millipedes, beetles, ants, mosquitos, gnats, wasps, cockroaches, and sprouts of some flora. However, some of these can be considered accidentals, or those who relocated into the cave by misfortune, or are just visiting the cave for a brief moment in time.

The geology of Robber Baron is classified as karst, or solution cave. The term Karst can be traced to a pre-European word meaning "stony" (Gams 1993). Karst is characterized by permeable limestone and dolomite; hydrologic sources such as aquifers, rivers, or even rainfall play a heavy role in forming caverns (Hajna 2013). The mixture of carbon dioxide with water

creates an acidic substance that is able to penetrate and dissolve limestone structures (TCMA 2016). Robber Baron sits within the Austin Chalk Limestone and based on the results of a 2007 study, was found to have formed through hypogene processes; this means pressurized water is pushed up into the fractures of the rock from the underlying rock formation, thus dissolving out passages from the bottom up (Klimchouk 2007). The framework of the cave is also maze-like with almost a mile of straight passages crisscrossing at nearly 90 degrees. Another distinguishable characteristic is the high relative humidity of caves, with humidity levels approaching near saturation (Portal 2011). Karst features are very unique in character; they are a fragile carbonate heavy environment with humid climate that are in constant equilibrium (Daoxian et al 1988). Caves have little climate fluctuation on the inside and Robber Baron sits at about 72 degrees' Celsius year round (Gunn 2004). Temperature and humidity are two abiotic seasonal factors influencing the presence of species within a cave due to the correlation between high temperatures and humidity; some species will prefer to seek haven from cold winters inside a warm and humid cavern (Portal 2011).

Many of the names given to the rooms in Robber Baron are colorful, such as the Graffiti Room and Lunch Room. Many of these names are associated with the history of the cave. The Graffiti Room got its name because of the graffiti scrawled and spray painted on the walls by visitors from the past century. Robber Baron was known as a show cave in the early 20th century, inviting visitors to explore freely and the cave even served as a speakeasy at one point. It should also be known many of the corridors in Robber Baron were closed with explosives by the previous owner because many people were getting lost in the cave. For many years, the owners prohibited entry into the cave and in 1980, the cave was officially gated after the San Antonio Grotto, a group of cavers, undertook a survey. The historical entrance was closed off permanently and now both entrances are gated. The entrance to the cave is located in a sinkhole about 5 m below the surrounding land. The area around the sinkhole is kept

natural with native foliage, a striking contrast to the surrounding developed areas. To access the cave, one must follow the spiral trail down to the entrance (TCMA 2016). The historical entrance is now permanently gated with a gate designed to be bat friendly. The main entrance is gated with removable bars and is the only entrance usable by people. Access is limited and controlled by the Texas Cave Management Association.

       Utilizing this bit of history can help to determine if more environmental protective measures are needed for the cave. Cave ecosystems are fragile due to their isolation and uniqueness in the landscape. Many cave ecosystems are damaged due to human error; some examples include building within caves for tourism infrastructure and careless visitors who pollute and damage cave structures (Whitten 2009). As a result of its history of neglect (large amounts of graffiti), Robber Baron has implemented measures including the limited access of most visitors. With the exception of researchers and local Bexar Grotto members, the cave is only open a few days out of the year for public touring. The US Fish and Wildlife Service has worked with TCMA to provide grant funding to re-gate the cave with wildlife friendly gates. It should be known two species found within the cave are listed as Endangered (TCMA 2016) due to their ecological uniqueness. These two species are troglobitic arachnids, the *Texella cokendolpheri*, also known as the Robber Baron cave harvestman, and the *Cicurina baronia*, or the Robber Baron Cave spider. Both of these species are found only in Robber Baron Cave (Hedin 2015).

       Human entry into the cave is not uncommon due to several events that take place throughout the year. Small tours are given to small groups with a maximum of 20 individuals up to twice a month, and a fundraising open house is held every 18 months in which 450 to 500 visitors tour the anterior of the cave. The past two dates have included November 1, 2014 and April 9, 2016. A part of the toured area overlaps with our survey area. In addition to the tours, the cave is frequented by many researchers on a monthly basis. Human intrusion into fragile cave ecosystems can be detrimental as trash is possibly left behind and human

presence can interfere with natural ecological processes (Whitten 2009). In this study we conducted a survey of biodiversity of the cave once a month and the data was analyzed to determine if an impact on diversity due to these human activities was observed. Given the amount of people passing through the cave during each Open House Event, these events are predicted to have a negative impact on the cave's richness.

Methods

We conducted a species survey once a month starting from September 2014 through May 2016. To do this, a tape measure was rolled out from the main entrance of the cave to the back of the main passage, which is approximately 50 meters long. We recorded the locations of species in approximation to the entrance using the tape measure in meters. Every five meters, we recorded the humidity, temperature, and barometric pressure using the Pasco GLX DataLogger. After the first corridor was finished, we used the same techniques in the historical entrance section. The map (Figure 1) indicates the locations of the main entrance, historical entrance, graffiti room, and lunch room. Since the historical entrance branches off, two different directions of data collection were observed. We refer to these directions as "Graffiti Room" and "Lunch Room" because these cavern corridors lead to the respective rooms. Both areas of study within the corridors are about 30 m in length. The same method of measurement was used as the first main corridor. Each member of the team had a different job; one was recording, two were counting life, and one was taking the climate data using the data logger. After the data were collected, the species abundances and distances were manually imported into an Excel spreadsheet with tabs for each month of the study.

The Excel spreadsheet contained a basic count of all the species found per month. We then calculated frequency for the six most abundant species. Because we wanted to analyze changes in abundance and diversity in relation to the two Open House events. we grouped the species abundance data into Open House time periods, which consisted of and the month of the Open House and one month after, and Non-Open House time periods,

which included the 2 months prior to the Open House. A frequency count was made for each of these two group and manually imported into SPSS, where a chi-squared test was used to determine if there was a statistically significant difference in abundance between the groups or species ($\alpha = 0.05$).

We also calculated the Simpson's Index for each month of the study, using the Simpson's Richness Index (H), as shown in equation 1 (Smith 2006). This equation was used because it gives heavier weight to the species most abundant in each month of analysis. The cricket population was divided into juveniles and adults. We then graphed the Simpson's Indices for each month to determine if there was a discernible pattern in species abundance and diversity across the study period.

$$D = \Sigma \, (n \, / \, N)^2 \tag{1}$$

We created Rank Abundance graphs of species for each of the Open House time periods. Rank Abundance graphs displays the log of species abundance ranked highest to lowest starting from 1. If two or more species had corresponding log numbers, they were ranked the same.

Results

The abundance distribution of the most predominant species is shown in Figure 2, with juvenile and adult crickets combined into one graph. These species-specific graphs show the fluctuation of population for each species from the start of data collection to the last collection date. From the graphs we can derive in the months of September, all species except for bats and millipedes had the highest count of individuals. Bats were most prevalent in the winter time and snails, millipedes, and crickets had high counts in the late summer months from July to September. Spiders did not have as much fluctuation as the other species but were most abundant during winter months. Based on the Simpson's Diversity Indices, both Open House events displayed different results with the first having a decrease in diversity while the second event had an increase.

A Simpson's Diversity Index Test was used on all the months as noted by Equation 1. This test incorporated all species found within a month to find diversity and compared all the dates

from the beginning of data collection. In this case, the higher the number the more diverse a month was found to be. January saw peaks of diversity, while most autumn months saw a drop. In the November Open House Event, the diversity dropped in the months after, while it rose in the months after the April Open House Event.

The Rank Abundance graphs show the most abundant species of each month, looking at the same four months revolving around and falling on the Open House events. Figures 5 and 6 display the month of the Open House Event, one month after, and two months prior. In this case, the closer to 1, the more abundant a species is. The graphs display a similar pattern of abundance for both Open Houses; however, the species fluctuate in rank as noted in Tables 1 and 2.

After running the Chi-Squared test for the two groups of Open House Events, both tests indicated there was a significant difference in abundance comparing species abundance during non-open house months and open house months ($p < 0.05$). This indicates that species abundance during both Open House events were different than the two months before; November saw a decrease while April saw an increase, as seen in Tables 3 and 4. Figures 7 and 8 were byproducts of the Chi-Squared test showing the change of population for the species tested. In this case, H_0 can be rejected in favor of H_1 which stated a significant difference in abundance exists between species abundance and the month of Open House events. This indicates both Open House events were drastically different than the two months before.

Discussion

Looking at the abundance graphs, Figures 2 and 3, it is clear all the species display a distinct oscillation. However, these seem to have little relationship to the Open House Events but rather natural ecological processes, such as seasonal migration. As evident in Figure 4, the November Open House saw a decline in abundance while the one in April saw an increase, meaning the low fluctuations of the species' abundances cannot be attributed to the Open House Events alone. This is the same for the Rank Abundance Graphs where both Figures 5 and 6 show almost

similar patterns of diversity; however, the most abundant species seemed to change based on time of year rather than as a cause and effect. The Chi-Squared test indicated significant differences in species abundance comparing the months before the Open House Events to the month after with a $p = 0.00$, at $\alpha = 0.05$. However, according to Tables 3 and 4, although a difference exists it cannot be directly related to the Open House Events and no direct relationship exists. For example, following the first Open House event, bat abundance increased while snail abundance decreased, while following the second Open House Event bat abundance decreased markedly. Some other factors that may play a role include the natural migration and life cycles of the species. For instance, the Tricolor Bats migrate to the San Antonio area during the winter and leave when warm weather arrives. Some other species, such as the cave crickets, see an increase during July and August in juveniles because of their natural birthing cycles; although crickets are capable of breeding year round, measurable ova, or a mature reproductive cell within females, were only found in the late summer months (Lavoie et al, 2007). Therefore, no direct relationship could be determined between the Open House Events and species diversity.

Conclusion

   The Texas Cave Management Association has implemented several methods of protecting the Robber Baron Cave environment, such as maintaining natural conditions and installing metal angle iron wildlife friendly gates to the entrances. The endangered status of the *Texella cokendolpheri*, also known as the Robber Baron cave harvestman, and the *Cicurina baronia,* the Robber Baron Cave spider, have not changed due to the fact that these species are endemic to this location. However, the *Cicurina Baroni* was recently spotted by our survey team in October of 2015 and their presence has been confirmed within the cave by a recent TxDot report (TxDot 2013), meaning the management of the cave is working. The Open House Events have been examined for their effects on species diversity, and the effect seems to be limited, as other factors such as meteorological changes seem to be more important. In future studies,

meteorological readings can be studied in order to seek a correlation in population changes. Given our limitations of the study, only having data from two Open House events, further investigation regarding natural species interactions is recommended. Some problems encountered while surveying species richness included accuracy, disturbance, and consistency of the surveyors.

Figures and Graphs

Figure 1. Extensive map of Robber Baron Cave with the studied
areas marked by light arrows and entrances marked by stars.
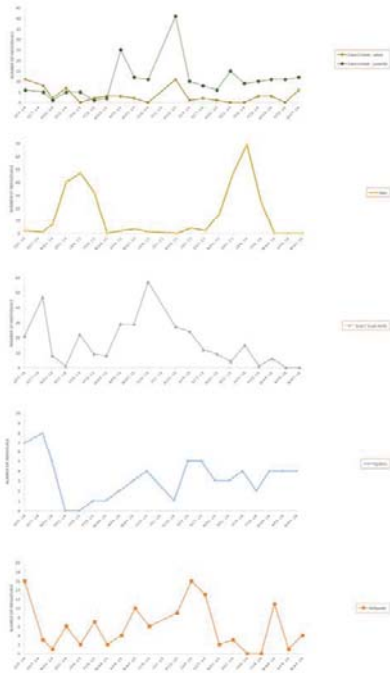
Figure 2. Most prevalent species count in Robber Baron Cave
including millipedes, snails, adult and juvenile cave crickets,
spiders, and bats from September 2014 to May 2016, separated by
species.
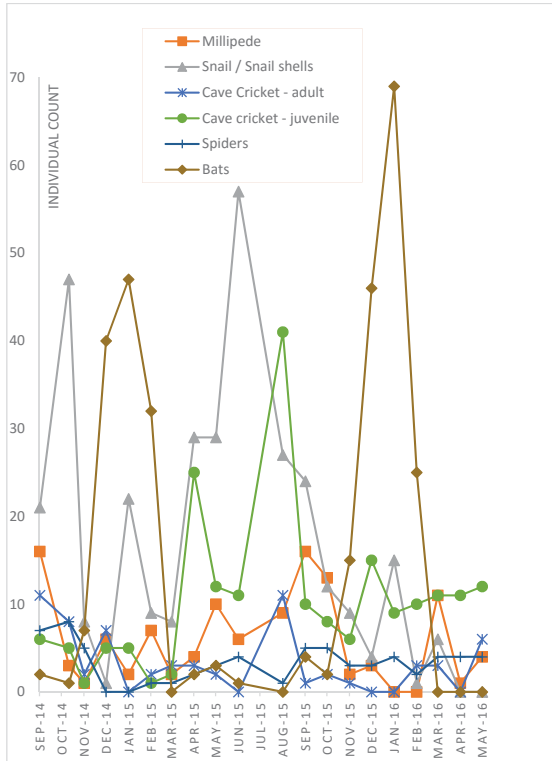
Figure 3. Most prevalent species count in Robber Baron Cave
including millipedes, snails, and both adult and juvenile crickets,
from September 2014 to May 2016
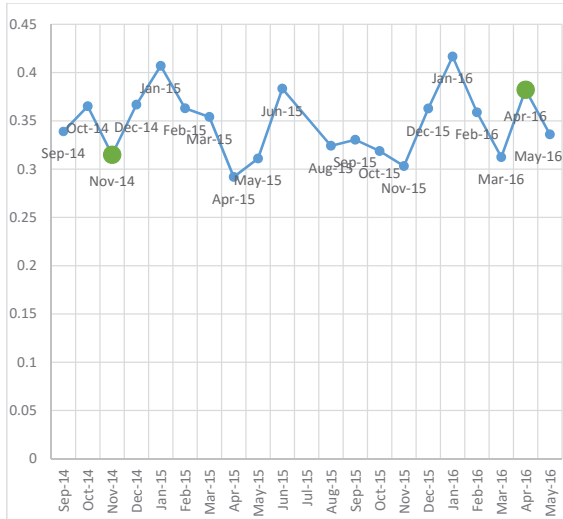
Figure 4. Simpson's Index graph for species recorded in Robber
Baron Cave, per month from September 2014 to May 2016 with
the Open House Events indicated by the large dots.
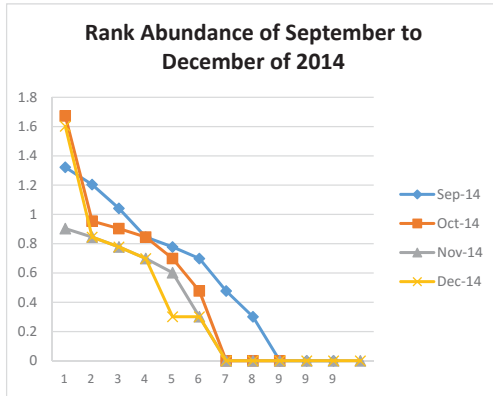
Figure 5. Rank Abundance of species present per month from
September 2014 to December 2014 in Robber Baron Cave.

Table 1: Rankings of each species depicted in Rank Abundance
graph, Figure 5, for Robber Baron Cave from September 2014 to
December 2014

September		October		November		December	
Snail / Snail shells	1	Snail/Snail Shells	1	Snail / Snail shells	1	Bats	1
Millipede	2	Mosquitos	2	Bats	2	Cave Cricket - adult	2
Cave Cricket - adult	3	Cave Cricket - Adult	3	Mosquitos	3	Millipede	3

Spiders	4	Beetle	4	Spiders	4	Cave cricket - juvenile	4
Cave cricket - juvenile	5	Cave cricket - juvenile	5	Beetle	5	Mosquitos	5
Beetle	6	Dead beetle	6	Cave Cricket - adult	6	Roaches	5
Mosquitos	7	bats	7	Millipede	7	Tree Cockroach	6
Bats	8	roaches	7	Cave cricket - juvenile	7	Isopods/ White Pill Bug	6
Ants	9	small frog	7	Dead Beetle	7	Sprouts	6
Earwig	9			Roaches	7	Dead Beetle	6
Pseudoscorpion	9			Gnats / Fruit Flies	7	Beetle	6
				Slug	7	Snail / Snail shells	6
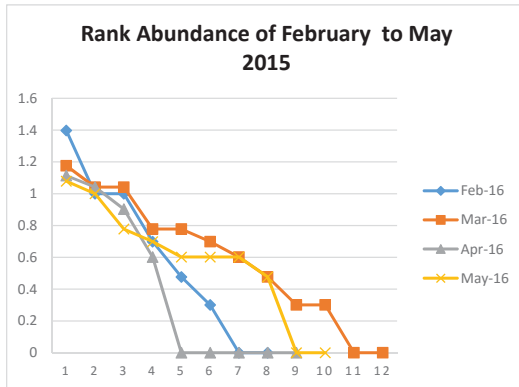
Figure 6. Rank Abundance of species present per month from February 2015 to May 2015 in Robber Baron Cave.

Table 2: Rankings of each species depicted in Rank Abundance graph, Figure 6, for Robber Baron Cave from February 2015 to May 2015.

February		March		April		May	
Bats	1	Filamentous fungus	1	Mosquitos	1	Cave cricket - juvenile	1
Cave cricket - juvenile	2	Cave cricket - juvenile	2	Cave cricket - juvenile	2	Gnats / Fruit Flies	2
Filamentous fungus	2	Millipede	2	Filamentous fungus	3	Cave Cricket - adult	3

Isopods/ White Pill Bug	3	Snail / Snail shells	3	Spiders	4	Filamentous fungus	4
Cave Cricket - adult	4	Isopods/ White Pill Bug	3	Millipede	5	Millipede	5
Dead Millipede	5	Sprouts	4	Beetle	5	Mosquitos	5
Snail / Snail shells	6	Spiders	5	Dead Beetle	5	Spiders	5
Dead Beetle	6	Cave Cricket - adult	6	Gnats / Fruit Flies	5	Springtails	6
		Gnats / Fruit Flies	7	Slug	5	Dead Millipede	7
		Ants	7			Dead Beetle	7
		Roaches	8				
		Dead Beetle	8				
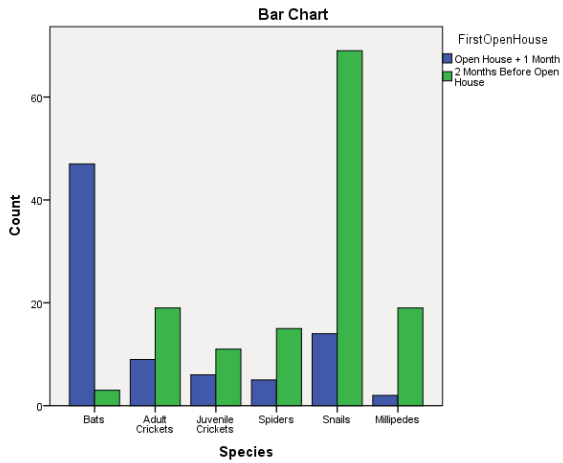
Figure 7. The population of the six most prevalent species in Robber Baron Cave as seen from the Chi-Squared results for the November 2014 Open House Event comparing the two months before and one month after.
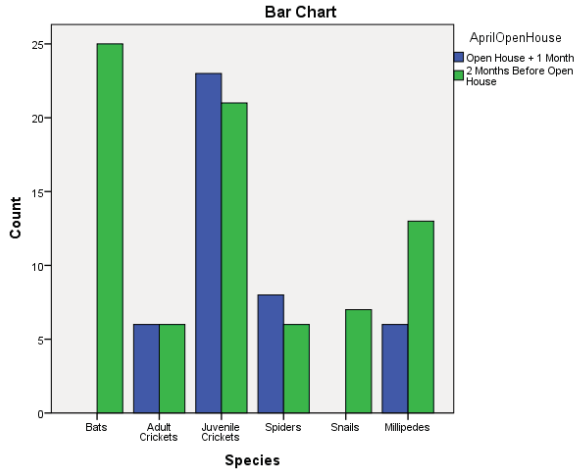
Figure 8. The population of the six most prevalent species in Robber Baron Cave as seen from the Chi-Squared results for the April 2016 Open House Event comparing the two months before and one month after.

<u>References Cited</u>

Baker GM, Taylor SJ, Thomas S, Lavoie K, Olson R, Barton H, Denn M, Thomas SC, Ohms R. Help KL, Despain J, Kennedy J, Larson D. 2015. Cave ecology inventory and monitoring framework. Nat Res Rep. [Internet] [cited 12 May 2016] Fort Collins: (CO) National Park Service.

Doaxian Y, Guihond C. 1988. Paper prepared for hydrogeology of selected karst regions of the world. Karst and Karst water in China. [Internet]. [cited 17 May 2016]. Available from: http://hydrologie.org/redbooks/a176/iahs_176_0030.pdf

Elliott, William R. 2004. Speodesmus cave millipedes. Four new species from central Texas (Diplopoda: Polydesmida: Polydesmidae). [Internet] Tex Mem Museum, Speleological Monographs, [cited 27 May 2016] 6:163-174. Available from: https://www.researchgate.net/publication/237752958_SPEODES MUS_CAVE_MILLIPEDES_FOUR_NEW_SPECIES_FROM_C ENTRAL_TEXAS_DIPLOPODA_POLYDESMIDA_POLYDES MIDAE

Gams, I. 1993. Origin of the term "karst," and the transformation of the classical karst (kras). Env Geo [Internet]. [cited 23 May 2016]; 21(3): 110-114. Available from: http://link.springer.com/article/10.1007%2FBF00775293

Hedin, M. 2015. High-stakes species delimitation in eyeless cave spiders (*Cicurina,* Dictynidae, Araneae) from central Texas [Internet]. [cited 1 Jun 2016]; 24(2):346-361. Available from: http://onlinelibrary.wiley.com/doi/10.1111/mec.13036/abstract;jse ssionid=B165EF7CBEAC88526F3025CB58C16C61.f01t04

Lavoie KH, Help KL, Poulson TL. 2007. The biology and ecology of North American cave crickets. J of Cave and Karst Studies. [Internet] [cited 20 Feb 2016]; 69:1, 114–134. Available from: https://caves.org/pub/journal/PDF/v69/cave-69-01-114.pdf

Lindsley, K.B. ed. 1989. Cave Research Foundation Annual
Report for 1988. Cave Books, St. Louis, (MO)

O'Shea, T.J., and Bogan, M.A. eds. 2003. *Monitoring Trends in
Bat Populations of the United States and Territories: Problems
and Prospects,* U.S. Geological Survey, Biological Resources
Discipline, Information and Technology Report, USGS/BRD/ITR
– 2003-0003, 274 p.

Smith, T.M., Smith, R.L. 2006. Elements of ecology. Pearson
Publishing. 8:322-323, 658 p

Taylor SJ, Krejka JK, Denight ML. 2005. Foraging range and
habitat use of Ceuthophilus Secretus (orthoptera:
rhaphidophoridae), a key trogloxene in central texas cave
communities. The Amer Midland Nat [Internet]. [cited 24 May
2016]; 154(1): 97-114. Available from:
http://www.bioone.org/doi/abs/10.1674/0003-
0031(2005)154%5B0097%3AFRAHUO%5D2.0.CO%3B2

Taylor, S. J., Krejca, J.K. and Slay, M. E. Cave Biota of Great
Basin National Park, White Pine County, Nevada, Illinois Natural
History Survey Technical Report 2008 (25).

Texas cave management association: Robber Baron preserve
[Internet]. [cited 15 May 2016] Available from
http://www.tcmacaves.org/robberbaron/

Texas Department of Transportation. 2013. STATE
ENVIRONMENTAL ASSESSMENT LOOP 1604FROM
FARM-TO-MARKET 471 (CULEBRA ROAD) TO STATE
HIGHWAY 16 (BANDERA ROAD) BEXAR COUNTY.
[Internet]. Available from: https://ftp.dot.state.tx.us/pub/txdot-
info/sat/projects/1604_northwest/envassessment.pdf
Veni, George. 1988. The caves of Bexar County. Austin (TX):
Tex Mem Museum, Uni of Texas at Austin, 300 p.

Weckerly FW. 2012. Cave cricket exit counts: environmental influences and duration of surveys. J cave and karst studies. [Internet] [cited 19 May 2016]; 74:1-6. Available from http://w.caves.org/pub/journal/PDF/V74/cave-74-01-1.pdf

Whitten T. 2009. Applying ecology for cave management in China and neighboring countries. J App Eco [Internet]. [cited 27 May 2016]; 46:520-523. Available from: http://resolver.ebscohost.com/openurl?sid=google&auinit=T&aul ast=Whitten&atitle=Applying+ecology+for+cave+management+i n+China+and+neighbouring+countries&id=doi%3a10.1111%2fj. 1365-2664.2009.01630.x&title=Journal+of+Applied+Ecology&volume =46&issue=3&date=2009&spage=520&site=ftf-live

U.S fish & wildlife serve: Bexar county invertebrates added to endangered species list [Internet]. [cited 29 May 2106] Available from http://www.fws.gov/news/ShowNews.cfm?ref=bexar-county-invertebrates-added-to-endangered-species-list&_ID=7339

Millennials: The Perceptions of Hillary Clinton
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In the history of the U.S., there has never been a woman candidate who has successfully run for president. As the primary season of the 2016 presidential election comes to an end, one woman has risen to become the presumptive nominee of the Democratic Party: Hillary Rodham Clinton. In contrast to Clinton's initial campaign in 2008, in which she originally downplayed her gender in her pursuit for presidency, Clinton is now embracing her potential as the first woman president. This new approach to her candidacy, however, has led many to question her political stances and her overall role in this election. Using Instagram as a way to gauge millennial perceptions of Clinton, this paper aims to understand why and how this generation has come to view Clinton positively or negatively. This paper analyzes the endorsements of Clinton on Instagram by two public figures who arguably represent some millennial views. The celebrity endorsements were posted by Kendall Jenner (a millennial supermodel) and Katy Perry (a millennial singer). In response to these Instagram endorsements, preliminary analysis of a sample of the commentary reveals that millennials largely view Clinton negatively as a presidential candidate. The commentary suggests that few of these potential millennials are of the opinion that Clinton should be the nation's next president. Several explanations are explored as to why this may be the case.

The results mirror current inquiries into how millennials view Clinton and what role this generation will play in the presidential election.

Introduction

   Historically, women politicians in the United States have been represented at drastically low numbers. In 2016, the United States maintained a significant gender gap in elected office, a disproportion that is perpetuated when one considers that women are currently 50.8% of the population (Howden and Meyer, 2011). What is perhaps more problematic, however, is that women have never held the presidential office of the United States. The woman who has been at the forefront of this conversation, Hillary Rodham Clinton, ran an unsuccessful campaign in 2008, but aims to have a more successful run in the 2016 election. As of June 6, 2016, Clinton is the presumptive nominee of the Democratic Party, and is the first woman in recorded history to claim such a title (Collinson, 2016).

   As Hillary Rodham Clinton affirms her status within the democratic nomination for the presidency, many are forming opinions about her, as well as opinions about the implications of the United States having its first female president. So far, based on reports by popular media, it appears that young people are notable for their significant lack of support for Clinton and their immense support for Bernie Sanders in the 2016 presidential election. This phenomenon may be the result of years of unequal distribution for women in public office. Simply put, young people may not be accustomed to the idea of a woman being president, leaving room for inadvertent sexism. Social media, which is used by much of the millennial generation today, offers cutting-edge methods for understanding the communication of this phenomenon and how views of a female presidential candidate are spread throughout the masses. *The Atlantic* reports that the millennial generation, a title loosely used to describe those born between 1982 and 2004, exists at the very height of this digital age (Bump, 2014).

Recently, a large quantity of popular literature on the views millennials hold about Clinton has become available. While each source provides a rationale for these views such as Clinton being too privileged or too pandering, not much research has been conducted to support the impression that this generation does not view Clinton favorably. However, these sources rarely rely on social media outlets to analyze young people's opinions about this presidential election. This paper will present preliminary research that analyzes millennial perceptions of Clinton using Instagram responses as a means of collecting data. The research is also highly relevant because Clinton's status as the presumptive nominee for the Democratic Party signifies a historical shift, one that is ongoing.

Literature Review

One way of understanding the inequality of political representation for women is through the investigation of the patriarchy, the system by which men are given more power, which results in the exclusion of women from true political involvement and brings about the persistent imbalance of the sexes in politics. Such a divisive social system has contributed to the total lack of female presidents in the United States. Despite gains in the established roles of women in politics, challenges are still very much present when a woman seeks to be represented in political office (Bari, 2005). Women not only face political inequality, but women also have to overcome economic, ideological, and social hindrances in order to participate in the political process at all (Bari, 2005). In addition, these women have to fight harder for capital such as resources, respect, and social inclusion (both informal and formal). It then follows that women not only struggle to pursue mainstream political positions, but women are largely handicapped when it comes to the pursuit of prestigious positions like the presidency or the vice-presidency. One woman who is attempting to break through the glass-ceiling is Hillary Rodham Clinton, who has tried before (unsuccessfully) to become the nation's first woman president, and is trying once again to achieve this level of political authority.

In the context of the 2008 presidential election, Clinton was implored to denounce numerous contradictions of her electability, oftentimes downplaying the significance of her gender in relation to her accomplishments (McGinley, 2009). This presented a paradox when one considers the extent of Clinton's education at Wellesley, Yale Law School, and her involvement in the New York Senate (McGinley, 2009). Clinton's lifestyle, which is a result of second wave feminism (a description for the feminist movement for the 1960s and 70s), initially caused Clinton to be perceived as pernicious to men and intimidating to traditional women (McGinley, 2009). Once in the White House as Bill Clinton's First Lady, Hillary Clinton had to deal with seeming feminine "enough" while also asserting her established role in the political spectrum. Therein, Clinton is described as accurately performing her gender role when necessary and being flexible in her approach to behaving feminine. This caused her favorability to decrease, however, an increase did take place following the public affair between Bill Clinton and Monica Lewinsky (McGinley, 2009) after the public thought her behavior to be commendable during the predicament. Despite maintaining an upwardly-mobile professional record, Hillary Clinton has and will likely continue to prove herself to the public and her colleagues alike.

The implications of the 2008 campaign are further understood through the continuity of its effects on the current political atmosphere. According to Carlin and Winfrey (2009), women, public officials in particular, are more prone to being classified within one of four branding stereotypes: seductress, mother, pet, and iron maiden. At any given point for Clinton, she is labelled loosely as being any one of the aforementioned stereotypes. Such a labelling is pushed by the media as a means of influencing the social perceptions of the masses in the modern age. The stereotype most often associated with Clinton, however, is that of the iron-maiden (Carlin and Winfrey, 2009). That is, Clinton is not portrayed as feminine enough by the media, and consequentially, is not seen in a feminine light by the general population; this downplays the significance of her being an

accomplished woman in public office. As a result, such a robust depiction causes many to be intimidated, and not positively impacted, by Clinton and her various accolades. This phenomenon has persisted in 2016, wherein Clinton is once again fighting negative social views in an effort for a successful presidential bid.

In addition, this contemporary struggle of Hillary Clinton, appealing to millennials in particular, is something that has captured the attention of various political blogs, journals, and websites. In contrast to her initial campaign in 2008, Clinton is now overemphasizing the significance of her gender in relation to the presidency (Burleigh, 2015). That is, Clinton is branding herself as the rightful person to be the first woman president. According to Newton-Small (2016), the assumption of Clinton that women ought to support her has led to scrutiny among younger women, who maintain that Clinton behaves as if she is entitled to the presidency. Clinton has reiterated such an assumption with statements such as: "At the end of the day, this really comes down to whether I can encourage and mobilize and turn out women to vote for the first woman President" (Newton-Small, 2016). For some observers, millennial women are not fond of the suggestion that they are obligated to vote for a candidate just because of their shared gender. This can be to the detriment of Clinton's campaign as her gender is now at the forefront of her electoral platform.

The current lack of support for Hillary among millennial *women* is all too apparent. According to a recent *Politico* article, of female voters under the age of 30 who voted at the time of the New Hampshire primary election, eighty-two percent identified as supporters of Hillary Clinton's opponent, Bernie Sanders (Roberts, 2016). Again, Clinton is often perceived by young people as being too entitled, which is a perception that could be overlooked by younger liberals if she were gay, black or poor (Roberts, 2016). In addition, many among the millennials believe Clinton's success to be a direct result of privilege and her relationship with the former president, Bill Clinton. Another *Politico* article identifies the existence of the perception that

Clinton simply does not stress the importance of solving economic inequality as much as her opponent in the Democratic race, which is frightening to the millennials who anticipate a heavy load of debt (Tyre, 2016). This also furthers the impression that Clinton is too focused on benefitting the wealthy. Similarly, young women are less likely to recognize the urgency of having a woman in office, as young women today feel much more equal in society than in the past (Holtzman, 2016).

With the upcoming presidential election comes a supposition not previously explored in pop culture, and many media outlets are legitimizing this rising concept. That is, the 2016 presidential election will have a significant presence within most forms of social media (Green, 2015). Thus far, Clinton has utilized Facebook, Twitter, Instagram, and Snapchat as a means of appealing to a younger, broader audience. In a recent study, it was indicated that thirty-four percent of participants (ages 18 to 24) were likely to use social media as a determinant factor in their vote for a president (Skinner, 2015). In addition, forty-one percent of participants in a study (ages 15 to 25) claimed to have had some sort of political discussion through the internet, all the while gaining political insight (Cohen and Kahne, 2015). Of the many forms of social media available, Instagram is particularly slated to have a big presence within the 2016 election (Schwarz, 2016). With more than 300 million monthly users, Instagram now offers a relevant platform for self-expression and social indoctrination, which gives it a significant advantage over other classifications of social media like Twitter or Facebook (Tsukayama, 2014).

Methods

This research takes an exploratory approach in order to gauge the perceptions of Hillary Clinton as described by responses to celebrity endorsements on social media, mainly through Instagram photographs. Of the 25 Instagram accounts with the highest amount of followers, as reported by *Tech Crunch*, two millennial women have gone out of their way to endorse Hillary Clinton for the 2016 presidential election. The two women serve as ideal faces for understanding millennial views because they have a large following of millennials. The two

celebrities are Kendall Jenner and Katy Perry. Jenner is a supermodel who is on the younger end of the millennial generation. Perry is an award-winning singer who has been particularly vocal about her support of Clinton. The two are described as being at the intersection of technology and culture, meaning that their social media accounts offer the opportunity to interpret how the public views this presidential election (Matney, 2016).

In addressing how Clinton is viewed by millennials, it is best to understand the social nuances associated with her and by this generation. Social media now gives observers the opportunity to understand the masses. According to Duggan of the pew research center (2015), Instagram, in particular, boasts a participation rate of 55% among online adults ages 18 to 29. As such, the commentary of each photograph on Instagram now allows for the understanding of millennial views at unprecedented rates. To best approach an analysis, this paper examines the first 100 accessible comments for each endorsement of Hillary Clinton (both Jenner's and Perry's photographs), thus allowing for a snapshot of the measured age-group; these comments arguably represent the most vocal among the followers of the celebrities. These two celebrities are used in the analysis due to their status as millennials and their relevance for this generation. Katy Perry, at the older end of this generation, is aged at thirty-one years old and is the sixteenth most followed person on Instagram (Matney, 2016). Kendall Jenner is on the younger end of this generation as she is twenty years old; Jenner is currently the ninth most followed person on Instagram (Matney, 2016). The commentary for these two Instagram postings will be assumed to be largely by millennials since there is no concrete proof that the commenters are of this generation. The research will investigate the responses as being a positive, a negative, or a neutral reaction to the celebrity for endorsing Hillary Clinton's bid for presidency.

Given that the primary elections are almost completed, and the national convention will take place soon, the existing data that will be analyzed varies in relevance and time. Kendall Jenner's Instagram endorsement is of Hillary Clinton was

launched in February of 2016. In this endorsement, Jenner is seen wearing a shirt with Clinton's face on it, and the photo is captioned "Shirt by @themarcjacobs. History by @hillaryclinton." Katy Perry's endorsement, which is one of several and the one with the most public reaction, was uploaded in March of 2016. The Instagram post is a photo of Katy Perry, Hillary Clinton, and Bill Clinton. In this particular photo, Perry encourages her fans to use their voices and volunteer. The collected data is relevant to this research because each source provides a means of understanding how young people are perceiving Hillary Clinton in this election cycle. This research will provide an insight into why millennials may or may not support Hillary Clinton's candidacy for president.

Analysis

      The data to be analyzed in this research highlights the most recent accessible commentary on both Kendall Jenner's and

Graph 1: Comparison of Commentary in response to Kendall Jenner's Endorsement

Category	Value
Negative	76%
Positive	13%
Neutral	11%
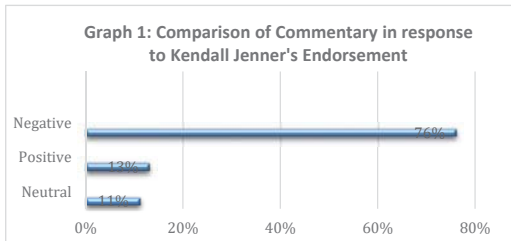
Katy Perry's Instagram endorsements of Hillary Clinton. While the ages of the commenters cannot be precisely identified, it can be argued that most comments reflect the views of millennials due to the high participation rate of this generation on Instagram as measured by the pew research center (Duggan, 2015). An exploratory analysis is conducted so as to understand what percentage of commenters, potential millennials, support a celebrity endorsement of Clinton, and therefore, Clinton's candidacy for president. Comments not analyzed in this study include comments directed at other participants in the responses,

comments not in English, responses with little or no relevance, and comments that were deemed to be incoherent.

Graph 1 depicts a three-sided comparison of the comments made in response to Kendall Jenner's endorsement. The results are divided into three categories of responses: positive, negative, or neutral. Categorizing the responses allows for an interpretation of the data. Of the analyzed comments, seventy-six percent were of a negative nature. One comment supposed that the nominee should actually go by the name of "Killary Clinton," most likely in response to Clinton's scrutinized handling of the Benghazi attacks. Another posting likened Clinton to a corporate puppet, and other participants questioned Jenner's intelligence. In contrast, thirteen percent of the responses were deemed to be positive; the majority of the positive comments highlighted the significance of Clinton's historical candidacy. Additionally, eleven percent of the responses were neutral, entailing that some held impartial or noncommittal views. The analyzed group of commenters seem to be non-supportive of Clinton's candidacy at this time, which confirms the notion that this sample of potential millennials do not perceive Clinton in a positive light.

Graph 2 portrays the classification of comments made in response to Katy Perry's endorsement of Hillary Clinton. This data represents a comparable value to the results found in the first graph. In this sample, commenters negated the endorsement at a rate of seventy-one percent. Several of the negations went as far as to state that Clinton ought to be in prison, various responses were made in support of Bernie Sanders, one contributor stated that Perry had no soul, and others undermined Perry's sense of judgment. The participants reacted in a positive manner at a rate of nineteen percent; these responses generally applauded Clinton's status as an accomplished woman. In addition, the measured group posted neutral responses about ten percent of the time, signifying the indifference that some felt. Like the data in Graph 1, the information in Graph 2 confirms that this sample of potential millennials are not too thrilled about Clinton's status as a presidential candidate, and more specifically, as the nominee of the Democratic Party.

The rate at which both groups of potential millennials support Hillary Clinton as a presidential candidate, through the interpretation of their responses, is highly comparable. The preliminary analysis of the data indicates an average response to Clinton to be negative; this was revealed in both instances as the

Graph 2: Comparison of Commentary in response to Katy Perry's Endorsement

Category	Percentage
Negative	71%
Positive	19%
Neutral	10%
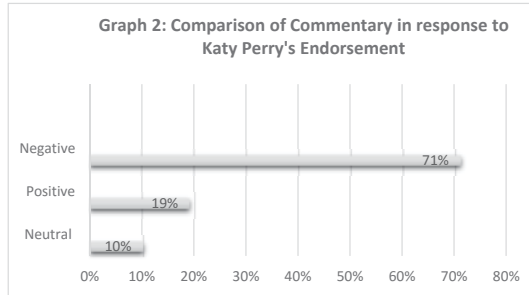
mean percentage of responses that were negative was 73.5%. However, both groups were also more likely to respond in a positive manner rather than a neutral one, which entails that an enthusiastic response is not the least likely to take place. The evidence still suggests, however, that those of the examined age group who contributed responses are much more likely to disdain Clinton as a presidential candidate than to take pride in her infeasible accomplishments.

Discussion

Generally speaking, a woman will have a strenuous time becoming president if she is without the support of a significant portion of the voting population. For some spectators, the perceived belief of this generation's Democrats is that a president should be reliable, in-touch with society, and completely distanced from corporate interests. The analysis, which utilizes data from both Jenner's and Perry's endorsements, reveals that most of the subjects feel Clinton contrasts this ideal image of a president. When not comparing Clinton to a criminal, this generation is quick to criticize Clinton's supporters for being

"uninformed." In addition, millennials are not happy about the insider reputation that Clinton has achieved. However, most have forgotten how difficult it can be for any woman to cultivate such a distinguished image. If the all-male presidents of the past have been well-connected, then it makes plausible sense that the first female president would also espouse such affiliations, even if these affiliations were not easily attained. Nonetheless, it is difficult to measure exactly why millennials are in objection of Clinton's historical efforts. The opposition may potentially be the product of underlying values throughout the nation, which perpetuate sexist ideals.

       One could speculate that the existence of patriarchal influence has led this generation to subconsciously disdain Clinton for behavior that would otherwise be labelled the norm of a major and male politician, presidential candidates included. To research such a topic would require significant tests about the implicit biases of society and would most likely be conducted through the field of psychology. However, this contradicts the possibility that some have explicitly chosen to not support Clinton because of her policy stances or her potential misgivings as a politician. With the rise of the digital age, internet accessibility in particular, this generation has become well-versed in various subject matters. As such, this generation is perfectly capable of analyzing Clinton as a person, a politician, and a possible president. Millennials, who some have implied are more liberal than in the past, may simply be dismayed by Clinton's ideals, which have often been described as being too moderate and not as left-leaning as other established Democrats, such as presidential candidate Bernie Sanders (Thompson, 2016). Sanders, who is self-described as a Democratic Socialist, is also credited with pushing the nature of Clinton's ideals, and even the stances of the Democratic Party, a little left of what they had previously been. As a result, there exists a view that Clinton is not as sincere in her approach to progressive policies as she could be (Starr, 2016).

       This paper cannot concretely explain who among the millennials dislike Clinton, nor does this paper clarify why this may be the case. What this study does, however, is explain that a

sizeable percentage of potential millennials, who participate in political observations using social media, are more likely to disfavor Clinton's candidacy. Much can be said for the political passion of this generation, which is largely fueled by frustration for income inequality, the achievement gap, and general systematic issues. In future elections, it will be informative to explore how this age group may view a female candidate who is described as less corporate, more liberal, and more down-to-earth than Clinton. If millennials were to also be disdainful of this hypothetical candidate, and if liberal attitudes continue as they are, then one could infer that an implicit bias is present. It would also be of interest to measure the systematic foundation from which this bias would potentially exist. Even still, despite negative feelings regarding Clinton, one cannot deny the significance of the U.S. claiming its first female president, and therefore, progressing in the name of gender equality.

Conclusion

      This research found that potential millennials, in response to two celebrity endorsements of Clinton on Instagram, largely oppose Clinton's quest for the oval office. This confirms the suppositions of previous assessments on the subject, which informally established the existence of the negative perception among this specific age group. Additionally, it is worth noting that Clinton's status as the current Democratic nominee may be due to progressive adjustments in our culture's recognition of gender equality. Such an accomplishment, however, may hold little significance in the eyes of this sample of potential millennials. At the same time, the results indicate that this generation is less likely to be neutral about Clinton in this election, a tad more likely to view Clinton positively, but most likely to perceive Clinton negatively in February and March. As the final election draws near, however, it is possible that negative perceptions about Clinton will change. This shift in notion would likely be in response to the behavior of her Republican competitor, Donald Trump.

      Though the data matches up with previous conclusions about Hillary's lack of millennial support, it should still be noted

that the online identities of the measured age group cannot be confirmed and that the commentary is only representative of a small sample of both Jenner's and Perry's Instagram followers. This is a drawback in the research and leaves room for misinterpretation. Further examination regarding the demographic background of these potential millennials could also be conducted, thus presenting a possibility for varied perceptions of Clinton. Perhaps more celebrity endorsements of Clinton could be analyzed. There exists the possibility that Perry and Jenner have a similar group of followers, potentially limiting the data. Despite potential shortcomings of the results, the data pose a highly relevant component of the current presidential election. Further research may examine the overall perception of Clinton in relation to the ongoing campaign and the eventual election. This may be done by conducting a focus group of millennials, and may entail the use of surveys.

References

Bari, F. (2005, November). Women's political participation: Issues and Challenges. In United Nations Division for the Advancement of Women Expert Group Meeting: Enhancing Participation of Women in Development through an Enabling Environment for Achieving Gender Equality and the Advancement of Women. Bangkok.

Bump, P. (2014, March 25). *Here Is When Each Generation Begins and Ends, According to Facts.* Retrieved from http://www.theatlantic.com/national/archive/2014/03/here-is-when-each-generation-begins-and-ends-according-to facts/359589/

Burleigh, N. (2015, November 20). She's A Lady! *Newsweek, 16-18*

Carlin, D. B., & Winfrey, K. L. (2009). Have you come a long way, baby? Hillary Clinton, Sarah Palin, and sexism in 2008 campaign coverage. Communication Studies, 60(4), 326-343.

Cohen, C. J., & Kahne, J. (2011). Participatory Politics. New Media and Youth Political Action.

Collinson, S. (2016, June 7). *Hillary Clinton clinches Democratic nomination.* Retrieved from http://www.cnn.com/2016/06/06/politics/hillary-clinton-nomination-2016/

Duncan, M. (2015, August 19). *The Demographics of Social Media Users.* Retrieved from http://www.pewinternet.org/2015/08/19/the-demographics-of-social-media-users/

Green, R. (2015, November 16). *The Game Changer: Social Media and the 2016 Presidential*

Election. Retrieved from http://www.huffingtonpost.com/r-kay-green/the-game-changer-social-m_b_8568432.html

Howden, L. M., & Meyer, J. A. (2011, May). *Age and Sex Composition: 2010*. Retrieved from http://www.census.gov/prod/cen2010/briefs/c2010br-03.pdf

Jenner, K. [@kendalljenner]. (2016, February 18). Shirt by @themarcjacobs. History by @hillaryclinton. [Instagram Picture] Retrieved from https://www.instagram.com/p/BCC7ZjwBf3L/?hl=en&tagged=madeforhistory

Matney, L. (2016, January 27). *What The 25 Most-Followed Instagram Accounts Show Us About The Platform*. Retrieved from https://techcrunch.com/gallery/what-the-25-most-followed-instagram-accounts-can-tell-us-about-using-social-media/

McGinley, Ann C., "Hillary Clinton, Sarah Palin, and Michelle Obama: Performing Gender, Race, and Class on the Campaign Trail" (2009). Scholarly Works. Paper 171. Retrieved from http://scholars.law.unlv.edu/facpub/171

Newton-Small, J. (2016, January 18). Hillary and women: Can gender be a force multiplier? *Time*, 28.

Perry, K. [@katyperry]. (2016, March 8). Let's USE OUR VOICE & elect a president. [Instagram Picture] Retrieved from https://www.instagram.com/p/BCs7zIcP-Qd/?taken-by=katyperry&hl=en

Roberts, M., Sheehy, G., Doyle, S., Drew, E., Tyre, P., Holtzman, E., Abramson, J., Filipovic, J., Jahangiri, M., Quinn, S., Brassil, G., Peterson, L. (2016). *Hillary's Woman Problem*. Retrieved from http://www.politico.com/magazine/story/2016/02/hillary-clinton-2016-woman-problem-213621

Schwarz, H. (2015, January 6). *2016 may yet be the first 'Instagram election.* Retrieved from https://www.washingtonpost.com/news/post-politics/wp/2015/01/06/2016-may-yet-be-the-first-instagram-election/

Skinner, G. (2015, March). *A third of young people think social media will influence their vote.* Retrieved from http://www.theguardian.com/news/datablog/2015/mar/10/a-third-of-young-people-think-social-media-will-influence-their-vote

Starr, P. (2016, February 22). *Why Democrats Should Beware Sanders' Socialism.* Retrieved from http://www.politico.com/magazine/story/2016/02/bernie-sanders-2016-socialism-213667

Thompson, D. (2016, February 29). *The Liberal Millennial Revolution.* Retrieved from http://www.theatlantic.com/politics/archive/2016/02/the-liberal-millennial-revolution/470826/

Tsukayama, H. (2014, December 10). *Instagram is now bigger than Twitter, will launch verified accounts*. Retrieved from https://www.washingtonpost.com/news/the-switch/wp/2014/12/10/instagram-is-now-bigger-than-twitter-will-launch-verified-accounts/

Free Writing and Reflective Journaling: The Development of Emotional Intelligence in Young Students

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While the benefits of writing have been explored, there is less research regarding reflective journaling and free-writing relating to emotional intelligence. This study explored the influence of writing on two components of emotional intelligence: emotional regulation and emotional expression. A pre-post experimental design examined emotional intelligence through students' self-reports (CERQ-k and EESC), students' journal entries, and teachers' reports of students' emotional intelligences (ERC). After being assigned to a free-write (n=6) or reflective-journaling group (n=24), students completed weekly journal entries in class for seven consecutive weeks. Each journal entry was analyzed using LIWC2001 software (Pennebaker, 1993). Results from simple linear regressions, including journal entries of all students, showed significant decreases in the frequency of words from the following categories: total first person ($\beta = -.31$, $p<.001$), affect ($\beta = -.21$, $p =.008$), positive emotions ($\beta = -.269$, $p =.001$), and positive feelings ($\beta = -.396$, $p<.001$). Additionally, results from paired-sample t-tests, with combined reflective and free-write data, showed significant decreases in students' acceptance [$t(22) = 3.392$, $p = .003$], rumination [$t(22) = 3.366$, $p = .003$], and catastrophizing [$t(22) = 4.771$, $p <.001$], according to the CERQ-K. Further, results showed decreases in poor awareness [$t(22) = 2.978$, $p = .007$] and expressive reluctance [$t(22) = 3.856$, $p = .001$] as measured by the EESC

and a decrease in liability/negativity [t(22) = 2.639, p = .015] as
measured by the ERC. Overall, these results have implications for
utilizing writing as an intervention tool for improving students'
psychological and social development (Thompson, 1994).

Various types of expressive forms of writing styles like
free writing and reflective journaling have shown cognitive,
academic, and developmental benefits. For example, free writing
(i.e., writing freely without a given prompt) is an effective tool
that has shown to positively impact coping skills, which are
especially important for young individuals who are living in
stressful conditions (Klingman, 1985). The effects of reflective
journaling (i.e., writing in response to general prompts with no
specific intention to evoke emotions) have similarly been
explored. Reflective journaling has been viewed as a
transformative learning experience for the writer in which the
individual is able to learn from the experience after becoming
detached from the experience (Hubbs & Brand, 2005). In
addition, researchers have investigated the psychological and
biological benefits of expressive writing in which participants
responded to provided prompts and wrote about their deepest
thoughts and feelings (Pennebaker, Colder, & Sharp, 1990).
Overall expressive writing has been linked to improvement in the
writers like better immunity and higher grade performance in
students (Pennebaker, 1998; Pennebaker, Colder, & Sharp, 1990).
While less research has been conducted on the benefits of free
writing, previous research on other forms of expressive writing
suggest that free writing and reflective journaling may facilitate
and thereby influence the development of emotional intelligence
in young students.

Emotional Intelligence

Emotional intelligence, as defined by Salovey and Mayer
(1990), is "a distinctive faculty of understanding that enables
[individuals] to recognize [their] own emotions and those of
others so that [they] can manage [their] lives and relationships."
Overall emotional intelligence is comprised of four branches:
perceiving emotions, using emotion to facilitate thought,

understanding emotions, and managing emotions (Salovey & Mayer, 1990). Biological and psychological studies have supported individual differences in how humans express and regulate their emotions and that these individual differences are likely influenced by genotype, age, adult experience, and social support (Vingerhoets, Nyklíček, & Denollet, 2008). Thus, the present study aimed to investigate how reflective journaling and free writing could serve as tools to facilitate the development of emotional intelligence (i.e., emotional regulation and emotional expression) in young students.

   Emotional Regulation. Brenner and Salovey (1997) define emotional regulation as a process in which "the child uses available strategies to manage stressful encounters." There are a variety of strategies used to manage or regulate stressful encounters. According to Thompson's theory, appropriate development of skills needed to regulate emotion is an imperative "prerequisite" for adaptive psychological and social development (Thompson, 1994). In addition, emotional regulation is an essential component of emotional intelligence and is positively linked to social functioning, academic achievement, and the ability to cope with negative situations (Penza-Clyve, 2002). Research on emotional regulation has implicated that young individuals have the ability to learn how to control their responses to situations (Hammond, Westhues, & Hanbidge, 2009) suggesting that specific techniques can be used to help children appropriately regulate and thereby express their emotions. According to Thompson (1994), the way individuals regulate their emotions influences how they express their emotions.

   Emotional Expression. Salovey and Mayer (1990) defined emotional expression as the ability to accurately express one's emotions and emotional needs. In addition, emotional expression is a skill that is characteristic of the first aforementioned branches of emotional intelligence, "perceiving emotion" (Salovey & Mayer, 1990). While some theorists understand emotional regulation and emotional expression as two distinct categories of emotional intelligence, Thompson (1994) explains emotional expression as a component of emotional

regulation because any deficit in emotional expression is known to affect an individual's ability to appropriately regulate his/her emotions. While emotional expression is telling of emotional regulation, there are individual differences in emotional expressivity. For example, some individuals are more inclined to express their emotions, while other individuals ignore or suppress their emotions. Based on participants' responses to questionnaires created to measure emotional expression, the more reluctant participants were to express their emotions the more likely they reported to behave inappropriately in reaction to their sadness and anger (Penza-Clyve, 2002). Therefore, this finding could imply that students' behaviors could be positively altered if students learn how to appropriately express their emotions.

Risks of Poor Emotional Intelligence

According to Zins (2007), emotional competence has implications on a student's well-being and his/her likelihood of success. In 1884, William James defined emotions as the perceptions of the physiological changes that occur in response to external stimuli and are caused by the evaluation of such changes in relation to an individual's goals, concerns, and aspirations. For example, the human physiological response of fight or flight played a role in human evolution and survival because it acted as a signal of needed help and support. However, while emotions act as interpersonal signals that communicate an individual's "internal states and behavioral intentions," negative emotions may be destructive if an individual has not developed proper coping mechanisms (Vingerhoets, Nyklíček, & Denollet, 2008).

In regards to coping with negative emotions, Vingerhoets, Nyklíček, & Denollet (2008) indicate two emotional regulation strategies: cognitive reappraisal and emotional repression. In particular, emotional repression is linked to a variety of health related risks: coronary heart disease, cancer, asthma, and diabetes. Negative outcomes such as these are related to emotional repression because, although the behavioral expression of emotions is decreased, the individual experiences the internal experience of the emotion itself in conjunction with physiological changes (Vingerhoets, Nyklíček, & Denollet, 2008).

As a result of repression and suppression of emotions, the unresolved negative emotions are more likely to "linger" and "accumulate" as thoughts (Vingerhoets, Nyklíček, & Denollet, 2008). According to Beck and Emery (1985), the nature of an individual's thoughts may consequently lead to anxiety and depression. More specifically, lacking emotional expression can put one at greater risk for psychopathology, and repressing negative emotions is correlated with the risk of somatic problems (e.g., conversion disorder; Saarni, 1999; Vingerhoets, Nyklíček, & Denollet, 2008). In addition to mental health issues, individuals who suppress the outward expression of their emotions may also fail to respond appropriately in social contexts (John & Gross, 2004). In other words, developing proper emotional regulation and expression skills is essential to having wholesome interactions with others like maintaining healthy relationships (Oatley, 2004).

Writing Styles

Research has investigated the uses and outcomes of various forms of writing [i.e. poetry, letter writing, free writing, expressive writing, and reflective journaling (Fox, 1997; Kress, Hoffman, & Thomas, 2008; Klingman, 1985; Pennebaker, 1997; Hubbs & Brand, 2005)]. This study in particular investigated the effects of free writing and reflective journaling.

Free Writing. Klingman (1985) defined free writing as "an either self-initiated or guided form of writing used to elicit direct expression of feelings and thoughts." Klingman (1985) investigated the effectiveness of a free writing workshop and the applicability of free writing in an actual war-related stressful event. Results showed that the communication of emotions increased for the individuals in the experimental free writing workshop. While fewer studies have investigated the benefits of free writing, Klingman's (1985) findings suggest the possibility that free writing may facilitate the development of emotional intelligence.

Reflective Journaling. Reflective journaling, while similar to expressive writing, was theoretically grounded in Kolb's experiential learning theory. In Kolb's theory, learning

increases when young individuals combine experience, perception, cognition, and behavior (Kolb, 1984). Furthermore when engaged in reflective journaling, students returned to and learned from an event in the past, and the reflection upon past events enabled students to derive meaning from their experiences.

More research conducted by Kress, Hoffman, and Thomas (2008) investigated reflective journaling in the form of therapeutic letter writing. The "supportive and empowering" intervention allowed writers to externalize their problems, detach themselves, and view themselves separate from their circumstances - past and present. Findings showed that writing letters provided externalization, which allowed victims to develop a sense of control over their situations (Kress, Hoffman, & Thomas, 2008). However, the implementation of providing intensive writing interventions similar to this therapeutic letter writing is challenging.

Considering that research suggests reflective journaling facilitates critical thinking, self-discovery, and self-expression (Kelley, Cunningham, & Branscome, 2015), reflective journaling is one potential avenue of intervention. Perhaps exposure to reflective journaling (e.g., providing prompts that encourage students to think about a previous event) may lead to increased emotional expression and emotional regulation skills and ultimately an increase in overall emotional intelligence.

Benefits of Writing

Research on the benefits of expressive writing has provided significant evidence to suggest that expressive writing has psychological as well as physical benefits. For example, Pennebaker and Beall (1986) conducted a study in which the experimental group was asked to write about their most traumatic experiences for 15-20 minutes during four consecutive days. At the end of the study, the participants in the experimental group had increased immunity and lower reported visits to the university clinic (Pennebaker & Beall, 1986). While many participants in this study reported writing about very traumatic experiences, a majority of the participants found their participation in the study to be a positive experience (Pennebaker & Chung, 2011)

suggesting writing outweighed the recollection and surfacing of potential trauma.

Importance of Current Study

According to Salovey and Sluyter (1997), assisting young individuals to cope with their stressors begins with an overall understanding of the development of emotional intelligence because young students can be guided and taught how to appropriately utilize healthy coping strategies. While there is currently no research comparing the influence of reflective journaling and free writing in relation to emotional intelligence, previous research suggests many benefits of different forms of writing emphasizing that writing may facilitate the development of emotional intelligence.

Therefore, the present study aimed to examine the difference between reflective journaling and free writing on emotional intelligence in young students. More importantly, reflective journaling and free writing could both serve as: (1) a tool to facilitate emotion regulation and expression and/or (2) an outlet for students to exercise appropriate emotion regulation and expression. Overall, the findings of this study have valuable implications for the effects of writing as it relates to cultivating emotional expression and emotional regulation in young students and guiding teachers, educators, and practitioners to utilize writing interventions in present and future instances.

Hypotheses

Below are the proposed hypotheses for the current study.

Hypothesis One. There would be a significant increase between pre- and post-measurement of students' scores on five of the nine subscales of the CERQ-k: acceptance, positive refocusing, planning, positive reappraisal, and putting into perspective. It was also hypothesized there would be a significant decrease between pre- and post-measurement of student's scores on four subscales of the CERQ-k: self-blame, rumination, catastrophizing, and other-blame.

Hypothesis Two. There would be a significant decrease between pre- and post-measurement of students' scores on both

subscales of the EESC: poor expressive awareness and expressive reluctance.

Hypothesis Three. There would be significant decrease for students' liability/negativity subscale and a significant increase for students' emotional regulation subscale between pre- and post-measurement according to teacher's reports on the ERC.

Hypothesis Four. Within both free writing and reflective journaling groups, frequency of words from the following categories would significantly increase over time: affect, optimism, positive emotions, and positive feelings whereas the rate of words from the following categories would significantly decrease over time: negative emotion, anger, sadness, and anxiety.

Method

Participants

The current study's sample consisted of 30 sixth-grade students ranging from 11 to 12 years (13 females and 17 males) at pre-measurement. At post-measurement the sample size decreased from 30 to 23 students (9 females and 14 males). Provided there were missing data given student absences, not all data were completed. The following demographics were derived from the original sample of 30 students showing that 21.7% families reported annual incomes of less than $10,000, 34.8% of families had annual incomes between $10,000 to $30,000, and the remaining 39% percent of families had annual incomes of more than $30,000. Ten percent of parents graduated with a Bachelor's degree or had graduate training/degrees, and 17.2% of parents had partial college experience. In addition, 37.9% of the parents had partial high school experience up to graduating high school and 17.2% of parents had not completed a high school or equivalent degree. Lastly, 90% of the children were reported by the parents as Latino/Hispanic, 3.3% were Black/African American, one student was reported as both Caucasian and Latino/Hispanic, and lastly one student did not specify. Students were recruited from a local middle school in San Antonio, Texas. The classroom teacher randomly assigned participating students to either the free writing group ($n = 6$) or the reflective journaling group ($n = 24$).

Measures

Cognitive Emotion Regulation Questionnaire (CERQ-k). The Cognitive Emotion Regulation Questionnaire (CERQ-k; Garnefski, Rieffe, Jellesma, Meerum Terwogt, & Kraaij, 2007) is a 36 item self-report questionnaire that uses a 5-point Likert scale and has been adapted to be suitable for children 9 years of age and older. In particular, the CERQ-k measured coping strategies via 9 subscales: self- blame, other-blame, acceptance, planning, positive refocusing, rumination or focus on thought, positive reappraisal, putting into perspective, and catastrophizing. Students responded to each item with: (1) (almost) never, (2) sometimes, (3) regularly, (4) often, and (5) (almost) always. A total subscale score was obtained by summing four corresponding items in each subscale, and the higher the subscale score displayed higher use of the specific cognitive emotion strategy. The possible range of scores for this measure is 36 to 180. Pre-scores ranged from 69 to 160 (M = 103.167, SD = 19.935) while post-scores ranged from 36 to 127 (M = 86.708, SD = 17.692).

Emotion Expression Scale for Children (EESC). The Emotion Expression Scale for Children (Penza-Clyve & Zeman, 2002) is a 16 item self-report questionnaire that uses a 5-point Likert scale to assess the lack of emotional awareness and lack of motivation to express negative emotion. Items from the EESC load on two factors: poor awareness and expressive reluctance. A psychometric analysis of the EESC supports the high internal consistency for the poor awareness factor (coefficient α = .83) and expressive reluctance factor (coefficient α = .81; Penza-Clyve & Zeman, 2002). Students responded to items with: (1) not at all true, (2) a little true, (3) somewhat true, (4) very true, and (5) extremely true. "High scores on the EESC indicate poorer emotion awareness and greater reluctance to express emotion" (Penza-Clyve & Zeman, 2002). The possible range of scores for this measure is 16 to 80. Pre-scores ranged from 27 to 78 (M = 48.967, SD = 13.810) while post-scores ranged from 16 to 74 (M = 42.381, SD = 13.607).

Emotion Regulation Checklist (ERC). The Emotion Regulation Checklist (ERC; Shields, Cicchetti, & Ryan, 1995)

was used to measure students' abilities to regulate their emotions. The checklist consisted of 24-items. Teachers rated the students' emotion regulation skills by responding to each question accordingly: (1) never, (2) sometimes, (3) often, and (4) almost always. The ERC measures emotional regulation on two subscales: liability/negativity and emotional regulation. Higher scores on the liability/negativity subscale indicate more negativity in mood, and higher scores on the emotional regulation subscale indicate better emotional regulation. The possible range of scores for this measure is 24 to 96. Pre-scores ranged from 43 to 61 (*M* = 50.138, *SD* = 4.077) while post-scores ranged from 43 to 53 (*M* = 48.621, *SD* = 2.211).

Big Five Inventory-10 short form (BFI-10). The Big Five Inventory-10 (BFI-10; Gosling, Rentfrow, & Swann, 2003b) is an abbreviated version of the Big Five Inventory-44 (BFI-44; John & Srivastava, 1999) and was used to measure the five distinct dimensions of personality for each student. The five dimensions of personality are extraversion, agreeableness, conscientiousness, neuroticism, and openness. Teachers indicated the students' personality by responding to each question accordingly: (1) disagree strongly, (2) disagree a little, (3) neither agree nor disagree, (4) agree a little, (5) agree strongly with appropriate items being reverse scored. Scores range from 2 to 14 for each trait, with higher scores reflecting strong exhibition of a trait. See Table 1.

Linguistic Analysis

All journal entries from the free-write and reflective journaling groups were coded and analyzed using the Language Inquiry Word Count program (LIWC; Pennebaker, Francis, & Booth, 2001). The second version of the LIWC was a textual analysis program developed as part of an exploratory study of language and disclosure (Francis, 1993; Pennebaker, 1993). More specifically, the second version (i.e., LIWC2001) was created with the purposes of providing an efficient and effective method for studying the various emotional, cognitive, structural, and process components present in individuals' verbal and written speech samples. All journal entries were spell checked and

corrected to ensure proper linguistic analysis prior to being submitted to LIWC.

      Journal Entry Coding. Journal entries were coded for the following: total word count, rate of total first person (e.g., I, me, mine, we, ours), and rate of words in categories of specific psychological processes: affect (e.g., happy, cried, abandon), positive emotion (e.g. happy, love, good), positive feelings, optimism, negative emotion (e.g., sad, kill, afraid), anxiety (e.g., worried, nervous), anger (e.g., hate, kill, annoyed), sadness (e.g., crying, grief, sad), and cognition (e.g., thinking, wonder, because, knowledge).

Procedure

      At the beginning of the study, parents completed a brief demographic questionnaire. The questionnaire collected the following information: student's and parent's age, student's gender, student's and parent's ethnicity, student's family income, and parent's level of education.

      Before the start of the study, students' emotional regulation and expression skills were measured by students completing the Emotion Expression Scale for Children (EESC; Penza-Clyve & Zeman, 2002) and the Cognitive Emotion Regulation Questionnaire (CERQ-k; Garnefski, Rieffe, Jellesma, Meerum Terwogt, & Kraaij, 2007). In addition to these aforementioned measures, the teacher completed the Emotion Regulation Checklist (ERC; Shields, Cicchetti, & Ryan, 1997) to measure students' emotional competencies and also completed the Big Five Inventory-10 (BFI-10; John, Naumann, & Soto, 2008) for each participating student.

      Between these pre- and post-measurements, students completed weekly journal entries over the course of seven weeks. The teachers assigned 24 of the participants to the reflective journaling group (i.e., provided a weekly journal prompt for seven weeks), and six participants were assigned to the free writing group. The reflective journaling group was given the following instructions: "Please use the next 10 minutes to answer the following question. Keep in mind that no grades will be given. You do not have to worry about spelling, grammatical mistakes,

or planning the composition." See Appendix B for the specific writing prompts provided to the reflective journaling group.

The free write group was given the following instructions: "Please use the next 10 minutes to write freely. Keep in mind that no grades will be given. You do not have to worry about spelling, grammatical mistakes, or planning the composition. You can choose to write about any real or imagined topic and/or experience." Journal entries were completed in and collected during class. After seven weeks, with one writing session occurring during each week in class for both writing groups, post-assessments were conducted using the same measures from the start of the study assessing students' emotional intelligences (i.e., EESC, CERQ-k, and ERC).

Results

Analyses of Pre- and Post-Measurements of Students' Emotional Intelligences

Below are the analyses regarding pre- and post-measurement of students' emotional intelligences as measured by students' self-reports (i.e., CERQ-k and EESC) and teachers' reports of the students' emotional intelligences (i.e., ERC). To explore the overall influence of writing, all students' data from the free-write and reflective journaling groups were included in the following t-tests especially given the small sample size of the free-write group ($n = 6$).

First, paired-sample t-tests were conducted to assess change from pre- to post-scores on all nine subscales from the CERQ-k. It was hypothesized that there would be a significant decrease between the pre- and post-scores on the CERQ-k subscales measuring self-blame, rumination, catastrophizing, and other-blame. Results showed students' rumination significantly decreased from pre-assessment ($M = 13.17$, $SD = 3.916$) to post-assessment ($M = 10.17$, $SD = 3.172$), $t(22) = 3.366$, $p = .003$. Additionally, results showed students' catastrophizing significantly decreased from pre-assessment ($M = 11.77$, $SD = 4.378$) to post-assessment ($M = 8.04$, $SD = 2.705$), $t(22) = 4.771$, $p < .001$. While it was anticipated that there would be a significant decrease in students' self-blame, rumination,

catastrophizing, and other-blame subscales, simultaneously it was anticipated that there would be a significant increase in students' scores for acceptance, positive refocusing, planning, positive reappraisal, and putting into perspective, which would signify improvement in emotional regulation. However contrary to the hypothesis, results showed that the scores indicating the use of acceptance as a strategy to regulate emotions significantly decreased from pre-assessment (M =12.22, SD = 3.554) to post-assessment (M = 9.7, SD = 2.42), $t(22)$ = 3.392, p = .003.

A paired samples t-test was also conducted to compare the pre- and post-measures of students' EESC scores. In accordance with the hypothesis, results showed a significant decrease in the two subscales of the EESC (i.e., poor awareness and expressive reluctance) from pre- to post-assessment. Specifically, the poor awareness subscale at pre-assessment had a mean of 24.23 (SD = 7.34) and decreased to 14.4 (SD = 11.34) at post-assessment, $t(29)$ = 4.73, p < .001. In addition, expressive reluctance had a mean of 24.73 (SD = 7.29) at pre-assessment and decreased to 15.53 (SD = 11.46) at post-assessment, $t(29)$ = 5.66, p < .001.

A paired-sample t-test was conducted to test whether scores from the ERC decreased on the liability/negativity subscale and increased on the emotional regulation subscale as hypothesized. Results from the teacher's reports on the ERC indicated that there was a significant decrease in the liability/negativity subscale between pre-assessment (M = 27.37, SD = 6.94) to post-assessment (M = 25.37, SD = 5.36), $t(29)$ = 3.04, p = .005. Results from the paired-sample t-test showed that there was not a significant difference between the pre- (M = 22.09, SD = 1.975) to post-assessment (M = 22.35, SD = 1.921) for students' emotional regulation skills. See Table 2.

Analyses of Students' Journal Entries

To assess the hypothesis that the average rate of positive expressive words (i.e., positive emotions, affect, and positive feeling categories) would significantly increase over time, the following simple linear regression analyses were conducted. Students' journal entries from both the free write and reflective journaling groups were aggregated and included in the below

analyses. All of students' journal entries were coded using the LIWC2001 software, which produced a percentage for each of the following categories: total first person, affect, optimism, positive emotion, negative emotion, anger, sadness, anxiety. Thereafter, these percentages for each respective category were then used in the following simple linear regression analyses. See Table 3.

First, the model for the category of positive emotions was significant showing that the frequency of positive emotion words students wrote in their journal entries decreased over time, [$F(1, 157) = 12.246$, $p = .001$, R^2 of .072]. The regression equation for positive emotion was $\hat{y} = 6.480 – .540X_{positive\ emotion}$. In addition, the model for the category of affect was also significant showing that students used less affect words in their journal entries over time, [$F(1, 157) = 7.269$, $p = .008$, R^2 of .044]. The regression equation for positive emotion was $\hat{y} = 7.479 – .436X_{affect}$. Lastly, the model for the category of positive feelings showed that there was also a significant decrease in the amount of positive feeling words that students wrote in their journal entries over time, [$F(1, 157) = 29.224$, $p < .001$, R^2 of .157]. The regression equation for positive emotion was $\hat{y} = 2.821 – .406X_{positive\ feelings}$.

Simple linear regression analyses were also conducted to assess the hypothesis that the average rate of negative expressive words would significantly decrease over time; however, the results of the regression analysis did not support this hypothesis. While results from the regressions of the linguistic analysis did not support the initial hypotheses, simple linear regression equations were conducted to assess the use of total first person over time. The model for the category of total first person words was significant indicating that students used less first person words over time, [$F(1, 157) = 16.5$, $p < .001$, R^2 of .095]. The regression equation for positive emotion was $\hat{y} = 15.718 – .946X_{total\ first\ person}$. See Table 2.

Discussion

While many studies have investigated the physical and physiological benefits of writing, the current study aimed to further explore the effects of writing styles on emotional intelligence.

In alignment with the first hypothesis, results of the CERQ-k, which measured students' adherence to specific coping strategies, showed that students at the start of the study displayed higher rumination and catastrophizing; however by the end of the study, indications of rumination and catastrophizing had decreased. These results suggest that students were catastrophizing or "emphasizing the terror of an experience" at a lower rate. A study conducted by Garnefski, Rieffe, Jellesma, Meerum Terwogt and Kraaij (2007) found that catastrophizing was one of the emotional regulation strategies used by children who displayed worry and fearfulness in addition to higher symptoms of depression. Additionally, Garnefski and colleagues found that children who used rumination more often as a coping strategy were also ones to report higher levels of worry and fear. The current study's results suggest that over time students were less likely to resort to unhealthy emotional regulation strategies (i.e., rumination and catastrophizing).

Interestingly in contrast to results showing decreased rumination and catastrophizing, acceptance scores also decreased over time as measured by the CERQ-k. In other words, students at the beginning of the study were more accepting of negative and stressful events compared to their acceptance levels of such events as measured at the end of the study. While this finding was not in accordance with the proposed hypothesis, the same study by Garnefski and colleagues (2007) found higher levels of acceptance were associated with increased worry in children. Although it was hypothesized that students would utilize acceptance more as an emotional regulation strategy, their study suggests that these reversed findings (i.e., lower acceptance potentially indicating less worry) have positive implications for the students' emotional intelligence and psychopathological well-being.

In addition to the results from the CERQ-k, findings from the pre- and post-measurement of the EESC were also in corroboration with the second hypothesis. Provided that the EESC is designed to measure emotional expression and emotional awareness, there was a significant decrease in poor awareness

scores and expressive reluctance scores from pre- to post-measurement. These results suggest that at the start of the study students displayed poorer emotional awareness and greater expressive reluctance whereas at the end of the study students indicated an increase in emotional awareness and emotional expression. It is possible that the students' opportunities to write in their journals allowed them to grow in awareness of their emotions and better express themselves thereby explaining their increased emotional awareness and decreased expressive reluctance.

Also, results from the teacher's responses to the ERC were in alignment with the third hypothesis. The ERC is designed to measure mood lability, flexibility, and dysregulated negative affect as well as emotional regulation, in which the pre- and post-measurement of the ERC indicated a significant decrease in students' liability/negativity. According to the teacher's responses, students displayed more negativity at the beginning of the study compared to the end of the study. However, while pre- and post-measurement of the liability/negativity subscale significantly decreased, the emotional regulation subscale scores from pre- to post-measurement were not significantly different.

While it was hypothesized that there would be an increase in the rate of words expressing affect, positive emotion, positive feeling, and optimism, it was also hypothesized that there would be a decrease in the rate of words expressing negative emotion, anger, sadness, and anxiety. Analyses of the students' journal entries surprisingly showed a decrease in affect, positive emotion, and positive feeling words. It is possible that the writing prompts were unbiased and/or elicited different emotions varying from student to student. For example, a prompt in the reflective journaling group asked students to give advice to an upcoming sixth grader. While one student might have joyful, positive experiences to convey another student might express cautious, quarrelsome experiences. Another factor that could explain variation in students' expression of emotions is their style of personality (Gosling, Rentfrow, & Swann, 2003b). For example, Mehl, Gosling, and Pennebaker (2006) found when writers, both

male and female, had higher word counts and used fewer large words it was predictive of writers being more extraverted. Additional factors exist that provide justification of a decrease in students using affect, positive emotion and positive feeling words. For example, total word count for each journal entry could have an influence. According to Andrei (2014), longer journal entries were associated with more reliable and expansive output from the LIWC2001 regarding expressive words. In like manner, the rate of expressive words used in longer excerpts is more likely to be representative of the emotional expressivity of the student/writer than excerpts of students/writers that were limited to a few sentences in length.

      Although there was no required minimum word count or sentence criteria, it should be noted that each journal entry, despite being emotionally unbiased, was selected to evoke some form of personal, social, or emotional reflection at the discretion of each student. Also, while it was hypothesized that there would be a decrease in the rate of negative expressive words (i.e., negative emotion, anger, sadness, anxiety), according to Tausczik and Pennebaker (2014) there is only a weak relation between the use of negative expressive words and respondents' ratings of anxiety or neuroticism. Correspondingly, the use of angry derivative words does not determine one being an angry individual rather it could primarily be reflective of the individual having a bad day (Tausczik & Pennebaker, 2014).

      Another potential influential factor that was later analyzed, total first person, indicated that the rate of using such words decreased over time. Interestingly, an increased rate of self-referencing is positively related to insecurity, nervousness, and possibly depression (Tausczik & Pennebaker, 2014). Thus, these results corroborate the notion that writing can foster healthy emotional regulation strategies, emotional expression, and overall higher levels of emotional intelligence.

      Furthermore, the transition from elementary school to middle school is characterized as a stressful experience (Simmons, Rosenberg, & Rosenberg, 1973). According to Green (2008), stressed students are more likely to encounter emotional,

social, and behavioral problems.Many emotional, social, and behavioral problems are a result of school failure, poor peer relations, being bullied, and/or an unrecognized learning disability (Green, 2008). Moreover during this transitional period, some students are likely to experience decreased self-esteem (Simmons, Rosenberg, & Rosenberg, 1973). While there are difficulties for students transitioning from elementary to middle school, studies have suggested that some students transition swimmingly. For example, students with healthy peer relations are more likely to experience less stress as they transition from one grade to the next (Agnew, 1999). According to Vingerhoets, Nyklíček, and Denollet (2008), the development of emotional intelligence allows individuals to live in harmony and community with one another. As indicated by the CERQ-k and EESC scores, students grew in regulating and expressing their emotions at a more competent level by the end of the study compared to the beginning - potentially from writing. Given these improvements, it can be speculated that students will be better equipped to serve their communities and develop supportive relationships as displayed in their increased emotional intelligence.

In addition to identifying as sixth grade students, a grade level known for critical transition and development, the current study's sample identified as predominately Latino/Hispanic (i.e., 90% of the students). The Latino/Hispanic population is the fastest growing minority group in the United States, and A 2001 Surgeon General's Report indicated that only 20% of Latinos/Hispanics who experience symptoms of mental health illnesses seek mental health services (Villatoro, Morales, & Mays, 2014). There are various explanations for the Latino/Hispanic population being reluctant to consult with and visit mental healthcare professionals [e.g., lack of insurance, limited information, language barriers, misdiagnosis (National Alliance on Mental Illness, 2011)]. This reiterates the importance of informing the Latino/Hispanic population about mental health disorders while simultaneously providing techniques (e.g.,

reflective journaling) during early life to develop appropriate emotional skills.

In congruence, Varela, Steele, and Benson (2007) reported that Mexican-American children were likely to be categorized as emotional repressors, which is characteristic of this culture valuing self-reliance. These children who were unable to identify their feelings of stress, anxiety, and anger were likely to internalize their problems and experience physiological symptoms of the negative emotions but did not know how to cope with and alleviate the symptoms (Newton & Contrada, 1999; Suveg & Zeman, 2004). In addition, researchers have studied how poor emotional regulation (i.e., using inappropriate coping strategies) and the reluctance to be emotionally expressive may lead to severe psychological and physical ailments especially after very stressful or traumatic events (Saarni, 1999; Vingerhoets, Nyklíček, & Denollet, 2008). Guiding students to utilize writing as means for emotional expression could serve as a preventative for this at-risk population harboring their emotions.

Limitations

There are various limitations within this study. First, the span of the study (i.e., 7 weeks) only allowed for seven weekly journal entries for each student. Additionally, it limited the time between pre- and post-measurement of students' emotional intelligences. Perhaps additional amounts of writing sessions and a longer time between pre- and post-measurement dates would attribute to greater changes between students' pre- and post-skills (i.e., emotional intelligence). This would allow for increased opportunity to both witness change in students' skills and be able to better interpret the influence of writing on students' emotional intelligence.

Other limitations included both a small sample size ($n = 30$) along with unequal sample sizes in the reflective journaling group ($n = 24$) and free-write group ($n = 6$). Given that recruitment occurred mid-semester and only at one middle school, there was a limited amount of students to recruit for the study, which lead to a smaller sample. Additionally, the teacher was

responsible for assigning students to each group, which unintentionally led to unequal sample sizes for the writing groups.

Lastly, the lack of a required word or paragraph count could also be seen as a potential limitation. However, it should be noted that writing itself is a possible stressor for many students. For this reason, the directions for the writing prompts were vague as to not elicit additional stress in the students (i.e., requiring a specific length). However, as formerly noted, Pennebaker suggested that each entry coded by the LIWC2001 should be a minimum of 200 words to ascertain the rate of expressive words while maintaining reliability.

Future Suggestions

In addition to addressing the limitations in the replication of this study, the battery of measures for emotional intelligence could be expanded. For example, Mayer, Salovey, and Caruso (1996) implemented the The Multifactor Emotional Intelligence Scale - Adolescent Version (MEIS-A) which measures the four branches of emotional intelligence in adolescence as defined by Mayer and Salovey (1997). In conjunction with a future study spanning throughout an academic year, this would allow for pre-measurement to occur at the commencement of fall semester and post-measurement to occur at conclusion of the spring semester thereby allotting greater disparity in pre-post measurement. Lastly given the homogeneity of the current sample's demographics, this study could be replicated with students of different ages, varying grade levels and ethnicities to better investigate writing as an intervention tool.

Implications of Results

While academic success is important, Zins (2007) emphasized the importance of addressing the social and emotional competence of a student to ensure long-term success. According to Hamburg (1992), late childhood and early adolescence are two critical time periods during which appropriate interventions are most likely to have an impact on children's lives. These previous implications and the results from the current study support the importance of exposing early adolescent aged students to journaling allowing opportunity to share, reflect, and express their

emotions. Optimally such usage of writing would develop appropriate emotional skills and higher levels of emotional intelligence in young students.

  With empirical evidence showing the importance of emotional intelligence [e.g., better peer relations (Oatley, 2004)], it is imperative to employ techniques early in childhood to foster skills like emotional expression and emotional regulation. Some school districts throughout the United States have implemented Social Emotional Learning (SEL) as a part of their curriculum to foster a supportive environment for their students (Zins, 2007). SEL highlights the importance of support systems by ensuring that each child receives the needed attention regardless of the intensity of their issues (Zins, 2007). While assessing the psychological and emotional state of every student is not feasible, Green (2008) argues that an appropriate diagnosis is necessary for some students, yet the root of many emotional, social, and behavioral problems of students is not the lack of diagnosis but rather the lack of skills (e.g., appropriate emotional regulation and emotional expression skills required to cope with and alleviate the anxiety students experience).

  Overall the present study supports writing as a facilitator of emotional intelligence, in particular emotional regulation and emotional expression. Provided the benefits afforded by writing, as shown in the current study and corroborated by former research, students should be encouraged and given the opportunity to engage in various forms of expressive writing in and out of the classroom. Knowing that emotional intelligence is foundational for forming appropriate peer relations, overcoming adversities, coping with stress and succeeding academically, it is imperative that students engage in activities that facilitate its development and provide opportunities to exercise such skills. In summary, writing can be a powerful intervention tool for improving students' emotional, psychological and social development (Thompson, 1994).

References

Agnew, R. (1991). The interactive effects of peer variables on delinquency. *Criminology, 29,* 47-72.

Andrei, A. L. (2014). Development and evaluation of tagalong linguistic Inquiry and word count (LIWC) dictionaries for negative and positive emotion. *The MITRE Corporation*, 1-13.

Beck, A. T., & Emery, G. (1985). *Anxiety disorders and phobias: a cognitive perspective.* New York: Basic Books.

Brenner, E. M., & Salovey, P. (1997). Emotional regulation during childhood: Developmental, interpersonal, and individual considerations. In Salovey & D. J. Sluyter (Eds.), *Emotional development and emotional intelligence: Educational implications* (pp. 168-195). New York: Harper Collins.

Fox, J. (1997) *Poetic medicine: The healing art of poem-making*. Penguin Putman, Inc.: New York (1997).

Garnefski, N., Rieffe, C., Jellesma, F., Terwogt, M., & Kraaij, V. (2007). Cognitive emotion regulation strategies and emotional problems in 9–11-year-old children. *European Child & Adolescent Psychiatry*, *16*(1), 1-9.

Gosling, S. D., Rentfrow, P. J., & Swann, W. B., Jr. (2003b). A very brief measure of the Big-Five personality domains. *Journal of Research in Personality, 37*, 504–528.

Greene, R. W. (2008). *Lost at school: Why our kids with behavioral challenges are falling through the cracks and how we can help them*. New York: Scribner, 2008.

Hamburg, D.A. (1992). *Today's children: Creating a future for a generation in crisis*. New York: Time Books.

Hammond, A., Westhues, A., & Hanbidge, A. S. (2009). Assessing the impact of an emotion regulation booster program for elementary school-aged children. *Journal Of Primary Prevention*, *30*(5), 569-586.

Hubbs, D. L., & Brand, C. F. (2005). The Paper Mirror: Understanding Reflective Journaling. *Journal Of Experiential Education*, *28*(1), 60-71.

John, O. P. & Srivastava, S. (1999). A five-factor theory of
personality. In O. P. John (Ed.),
    Handbook of Personality Theory and Research (pp. 102-
138). New York: Guilford Press.

Kelley, H. M., Cunningham, T., & Branscome, J. (2015).
    Reflective journaling with at risk students. *Vistas Online,*
    1-9.

Klingman, A. (1985). Free writing: Evaluation of a preventive
    program with elementary school children. *Journal of
    School Psychology*, *23*, 167-175.

Kress, V. E., Hoffman, R., & Thomas, A. M. (2008). Letters from
    the Future: The Use of Therapeutic Letter Writing in
    Counseling Sexual Abuse Survivors. *Journal Of
    Creativity In Mental Health*, *3*(2), 105-118.

Latino mental health. Retrieved from https://www.nami.org/Find-
    Support/Diverse-Communities/Latino-Mental-Health

Mayer, J. D., Salovey, P., & Caruso, D. R. (1996). *Multifactor
    emotional intelligence scale - Adolescent version (MEIS-
    A). Unpublished instrument, University of New
    Hampshire.*

Mehl, M. R., Gosling, S. D., & Pennebaker, J. W. (2006).
    Personality in its natural habitat: Manifestations and
    implicit folk theories of personality in daily life. *Journal
    of Personality and Social Psychology, 90,* 862-877.

Newton, T. L., & Contrada, R. J. (1992).Repressive coping and
    verbal autonomic response dissociation: The influence of
    social context. *Journal of Personality and Social
    Psychology, 62*, 159–167.

Oatley, K. (2004). *Emotions: a brief history*. Malden, Mass. :
    Blackwell Pub., 2004.

Pennebaker, J.W. (1997). *Opening Up: The Healing Power of
    Expressing Emotions.* New York: Guilford Press.

Pennebaker, J. W., & Beall, S. (1986). Confronting a traumatic
    event: Toward an understanding of inhibition and disease.
    Journal of Abnormal Psychology, 95, 274-281.

Pennebaker, J. W., Colder, M., & Sharp, L. K. (1990).
          Accelerating the coping process. J*ournal of Personality &
          Social Psychology, 58*(3), 528-537.

Pennebaker, J. W., & Chung, C. K. (2011). Expressive writing:
          connections to physical and mental health.*The Oxford
          Handbook of Health Psychology.* New York, NY: Oxford
          University Press, 417–437.
          doi:10.1093/oxfordhb/9780195342819.013.0018

Pennebaker. J.W., Francis, M.E., and Booth, R.J. (2001).
          Linguistic Inquiry and Word Count (LIWC): LIWC 2001.
          Mahwab, NJ: Erlbaum Publishers.

Penza-Clyve, S. J. (2002). Initial Validation of the Emotion
          Expression Scale for Children (EESC). *Journal Of
          Clinical Child & Adolescent Psychology*, *31*(4), 540.

Rammstedt, B., & John, O. P. (2007). Measuring personality in
          one minute or less: A 10-item short version of the big five
          inventory in English and German. *Journal Of Research In
          Personality* (1), 203.

Salovey, P. & D. J. Sluyter (1997). *Emotional development and
          emotional intelligence: Educational implications.* New
          York: Basic.

Saarni C (1999) *The development of emotional competence.*
          Guilford Press, New York.

Salovey, P. & Mayer, J. D. (1990). Emotional intelligence.
          Imagination, Cognition, and Personality, *9*, 185-211.

Satcher, David Department of Health and Human Services (2001)
          *Mental Health: Culture, Race, and Ethnicity—A
          Supplement to Mental Health: A Report of the Surgeon
          General.* U.S. Department of Health and Human Services,
          Washington, D.C..

Shields, A., & Cicchetti, D. (1997). *Emotion Regulation
          Checklist*. Princeton, NJ: Educational Testing Service.

Simmons, R. G., Rosenberg, F., & Rosenberg, M. (1973).
          Disturbance in the self-image at adolescence. American
          Sociological Review, 38, 553-568.

Suveg, C., & Zeman, J. (2004). Emotion regulation in children with anxiety disorders. *Journal of Clinical Child and Adolescent Psychology, 33*, 750–759.

Thompson, R. A. (1994). Emotion regulation: A theme in search of a definition. In N. A. Fox (Ed.), *The development of emotion regulation: Biological and behavioral consideration.* Monographs of the Society of Research in Child Development, *59*, 25–52.

Tausczik, Y.T., & Pennebaker, J. W. (2014). The psychological meaning of words: LIWC and computerized text analysis methods.

Vingerhoets, A. M., Nyklíček, I., & Denollet, J. (2008). *Emotion regulation: Conceptual and clinical issues*. New York: Springer, c2008.

Varela, R. E., Steele, R. G., & Benson, E. (2007). The contribution of ethnic minority status to adaptive style: A comparison of Mexican, Mexican American, and European American children. *Journal of Cross-Cultural Psychology, 38*, 26–33.

Villatoro, A.P., Morales, E.S., & Mays, V. M., (2014). Family culture in mental health help-seeking and utilization in a nationally representative sample of Latinos in the United States: the NLASS. *American Journal of Orthopsychiatry, 84(4),* 353-363.

Zins, J. J. (2007). Social and emotional learning: promoting the development of all students. *Journal Of Educational & Psychological Consultation*, *17*(2/3), 233-255.

Zeman, J., Shipman, K., & Suveg, C. (2002). Anger and sadness regulation: Predictions to internalizing and externalizing symptoms in children. Journal of Clinical Child and Adolescent Psychology, 31, 393–398.

Table 1

Means and (Standard Deviations) of BFI Factors Measuring Students'
Personalities

| BFI Factors | *M (SD)* | |
Overall Range		
Extraversion	5.07 (2.36)	2-14
Agreeableness	4.35 (1.70)	2-14
Conscientiousness	3.76 (2.08)	2-14
Neuroticism	4.48 (1.57)	2-14
Openness to Experiences	3.97 (1.30)	2-14

Note. N= 30

Table 2

Means and (Standard Deviations) of Pre- and Post-Measures of Students' Emotional Intelligences

	Pre and Post Emotional Intelligence Measures		
*Emotional Intelligence Measure*s	Pre (*n* = 30)	Post (*n* = 23)	Overall Range
CERQK			36-180
Self Blame	10.17 (3.939)	9.43 (3.653)	4-16
Acceptance	12.22 (3.554)	9.70 (2.420)**	4-16
Rumination	13.17 (3.916)	10.17 (3.172)**	4-16
Positive Refocusing	12 (4.719)	11.26 (4.712)	4-16
Planning	13.22 (3.357)	11.48 (3.883)	4-16
Positive Reappraisal	11.04 (2.549)	9.78 (3.370)	4-16
Putting into Perspective	13.04 (5.050)	12.09 (4.358)	4-16
Catastrophizing	11.57 (4.378)	8.04 (2.705)***	4-16
Other Blame	8.39 (3.421)	8.52 (3.527)	4-16
EESC			16-80
Poor Awareness	4.91 (7.549)	18.78 (9.140)**	8-40
Expressive Reluctance	26.43 (7.248)	20.26 (8.535)***	8-40
ERC			23-92
Liability Negativity	28.22 (4.899)	26.30 (2.285)*	15-60
Emotional Regulation	22.09 (1.975)	22.35 (1.921)	8-32

Note. N = 23; * *p* < .05; ** *p* < .01; *** *p* < .001

Table 3
Summary of Linear Regression Analyses for Students' Frequency of Word Usage in Journal Entries (N = 30)

Variable	β
Word Count	-.107
Total First Person	-.308***
Affect	-.210 **
Positive Feeling	-.396***
Positive Emotion	-.269**
Optimism	.042
Negative	.107
Anxiety	.088
Anger	.112
Sadness	-.108
Cognitive Mechanism	-.137 †

Note. † *p* = .085; * *p* < .05; ** *p* < .01; *** *p* < .001

Appendix A
Reflective Journaling Prompts

1. Write about a time when you made someone feel happy.
2. What are some things that make you special? Why?
3. What are your favorite things about yourself? Why?
4. Write about a time when you help fixed a problem.
5. Write about a time when you did something you were afraid to try. How did you feel afterward?
6. What could you tell a fifth grader that would help them be ready for sixth grade?
7. What is one of your best memories? Write about a time when you helped fix a problem.

Analyzing Narrative Theory as a Method of Conflict Transformation: Northern Ireland Case Study

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For 30 years Northern Ireland struggled with armed political violence. Today that magnitude of violence is no longer present. Many people must live with the trauma of the past. Sectarian beliefs are still held by many Protestants and Catholics slowing the efforts for peace within society. Narrative theory is used as a method by several peacebuilding initiatives to tackle trauma and sectarianism that exists in Northern Ireland. *Healing trough Remembering* is a well-known organization that promotes several storytelling and narrative based methods as ways to overcome community's struggles with the legacy left by the 30 years of violence. This project is intended to analyze the effectiveness of narrative theory in the period immediately following the 30 years of violent conflict in Northern Ireland.

In 1968, the Catholic community's frustration lead to the start of the Civil Rights Movement. It was mostly economic issues that led to Catholics to organize and demand to be treated with equality as British citizens.[1] Before the Civil Rights Movement, Catholics tried to pressure the government to understand and hear their needs but quickly realized that their

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[1] PBS, "The 1968 Civil Rights Movement," Accessed June 20, 2016, http://www.pbs.org/wgbh/pages/frontline/shows/ira/conflict/civil.html .

efforts were futile when dealing with the local parliament known as Stormont.[2] In 1968, Northern Ireland was two-thirds Protestant and one-third Catholic.[3] The political arena was controlled by Protestants in the Unionist government.[4] This resulted in the establishment of a political environment that limited the rights of the minority, Catholics. At this time the Protestant community was economically benefitting from manufacturing in ship building industries.[5] Protestant discrimination meant that the Catholic community was economically poor.[6] Catholics also had limited voting rights due to laws that intertwined with the ability to pay local rates or taxes.[7] In addition, Catholics and Protestants lived in segregated neighborhoods and children attended segregated schools.[8] As a result of high unemployment rates among Catholics, many could not pay taxes and, therefore, did not have the right to vote.[9] This left Catholics feeling as though they were second-class citizens.[10]

The Catholic community felt that it had no voice and that its demand of democracy, also known as "One man, one vote," became insufficient to satisfy the needs of the community.[11] As the Civil Rights Movement grew more demands were made, specifically in the areas of jobs and housing.[12] These demands began to reflect more of the Catholic community than the first demand for equal voting rights. When Catholic demands were ignored, conscious of the civil rights movement in the U.S. they

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[2] Ibid.

[3] Feargal Cochrane, *Ireland the Reluctant Peace*, (New Haven: Yale University Press, 2013), 26.

[4] "Civil Rights March 1969," British Broadcasting Corporation (BBC), Accessed June 16, 2016,
http://news.bbc.co.uk/hi/english/static/northern_ireland/understanding/themes/civil_rights.stm.

[5] Cochrane, *Ireland the Reluctant Peace*, 297.

[6] PBS, "The 1968 Civil Rights Movement."

[7] Ibid.

[8] Cochrane, *Ireland the Reluctant Peace*, 301.

[9] PBS, "The 1968 Civil Rights Movement."

[10] Ibid.

[11] Ibid.

[12] Ibid.

decided to go out in the streets in protest. The Protestant Unionist government responded with suspicion of Catholic protestors, accusing them of being Republican, that is, Catholics wanting the six counties to become part of the Republic of Ireland.[13] Due to the historical political difference in interest between the Unionist and Republicans, the Protestant government reacted harshly against the protestors believing that it was a revival of the demand, that Northern Ireland joining the Republic of Ireland.[14] With tension rising between the government and protestors on Catholic issues, the Civil Rights Movement quickly lead to extremists on both sides advocating the necessity of violence against the other. The negative response of the Unionist government and Catholic feelings of being ignored and discriminated against for over fifty years led both groups to more extremist ideas. While most protestors viewed non-violence as a political tool, a minority felt that this tool was not working and decided to use more aggressive and eventually violent modes of protesting.[15]

From the time span of 1968-1998, also known as, "The Troubles," armed conflict increased dramatically among Protestant and Catholic paramilitary groups, and eventually, British security forces.[16] Urban centers like Belfast were one of the places where the climax of the tension resulted in violent acts like bombings and violent riots.[17] In one year (1972), 472 people were killed as a result of political violence[18] and from 1969 and

[13] "Civil Rights March 1969," British Broadcasting Corporation (BBC), Accessed June 16, 2016,
http://news.bbc.co.uk/hi/english/static/northern_ireland/understanding/themes/civil_rights.stm.
[14] Ibid.
[15]: Adams Roberts and Timothy G. Ash, eds., Civil Resistance & Power Politics: The Experience of Non-Violent Action from Gandhi to the Present (Oxford: Oxford University Press, 2011), 83.
[16] Martha Cooney and Christina Healey, "Northern Ireland," Salem Press Encyclopedia. (2014), pg #s citing, EBSCOhost. 88391149.
[17] Ibid.
[18]Roberts and Timothy G. Ash, eds., *Civil Resistance & Power Politics: The Experience of Non-Violent Action from Gandhi to the Present*, 79.

2001 there were around 3,700 deaths.[19] The civil rights initiatives developed a space for extremists to thrive by concentrating on inequalities faced by the minority group, Catholics in Northern Ireland.[20]

From the Catholic side, the most active paramilitary group was the Irish Republican Army (IRA). On the Protestant side there were several Loyalist and Unionist groups that would attack protestors. In 1969, Britain sent troops to support the Unionist government in confronting Catholic and Protestant paramilitary groups. The British had no true knowledge what their mission was, no knowledge of the region's politics, and no strategic political leadership.[21] British troops showed a preference for the Unionist and Loyalist.

The Battle of the Bogside in the city of Derry in August 12, 1969 became a turning point for the civil rights movement and created a leeway for the rise of paramilitaries.[22] In this conflict the government lost control of the situation between the Loyalist and Nationalist.[23] This event took place in a neighborhood where the majority of the Catholic population had been systematically oppressed by the Protestant government.[24] In trying to control the protestors, the British security forces became known for using CS gas on unarmed civilian protestors.[25] The news of the protests and subsequent violence in the Bogside area reached by other Catholic communities causing outrage and a tendency towards tolerating more violent means.[26]

In 1972, once again the Catholics living in Bogside experienced British soldiers firing on unarmed Catholic protestors

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[19] Lee A. Smithey, *Unionists, Loyalists, & Conflict Transformation in Northern Ireland* (Oxford: Oxford University Press, 2011), 9.
[20] Roberts and Timothy G. Ash, eds., *Civil Resistance & Power Politics: The Experience of Non-Violent Action from Gandhi to the Present*, 78.
[21] Cochrane, *Ireland the Reluctant Peace*, 54-56.
[22] PBS, "The 1968 Civil Rights Movement."
[23] Ibid.
[24] Ibid.
[25] Ibid.
[26] Ibid.

killing fourteen and injuring many more.[27] This day became
known as Bloody Sunday and which came to be a pivotal moment
in which the Catholics community gave greater support to the
IRA's armed struggle.[28] These were two of many violent events
without counting the day to day violent events which lead to
increased violence by Catholic and Protestant paramilitaries.
These included public bombings and individual motivated attacks
on to innocent people. According to the Malcom Sutton's index
of deaths, the largest total number of death during the Troubles
was 1,841 civilian lives compared to the 396 Republican
paramilitaries' deaths and 170 Loyalist paramilitaries' deaths.[29]
The magnitude of the violence experienced during the Troubles
greatly lowered once the Belfast or Good Friday Agreement was
signed in 1998. This agreement was part of the Irish peace
initiative to bring an end of the armed violence and create a
power-sharing government.

         The Belfast Agreement managed the conflict by ending
the violent struggle. It created a power-sharing arrangement
between Protestants and Catholics in Stormont. However,
managing an end to violence does not easily lead to conflict
resolution, reconciliation or transformation. Reconciliation and
transformation can only be realized when the trauma experienced
by both Protestants and Catholics has been addressed.

         According to the Oxford English Dictionary, trauma in
psychological terms is "a psychic injury, especially one caused by
emotional shock the memory of which is repressed and remains
unhealed." In Northern Ireland, the highest percent of population

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[27] Roberts and Timothy G. Ash, eds., *Civil Resistance & Power Politics: The
Experience of Non-Violent Action from Gandhi to the Present*, 77.
[28] PBS, "Bloody Sunday (Jan 30, 1972) The Watershed," accessed June 20,
2016,
http://www.pbs.org/wgbh/pages/frontline/shows/ira/conflict/bloody.ht
ml.
[29]Ulster University, "Summary of Status of the Person Killed," Malcom
Sutton: An Index of Deaths from the Conflict in Ireland, Accessed June 19,
2016, http://cain.ulst.ac.uk/sutton/tables/Status_Summary.html.

with PTSD is due to events that occurred during the Troubles.[30] Traumatic events can lead to post-traumatic stress disorder (PTSD) and the length of the PTDS will depend on the intensity level of the event. According to the Northern Ireland Study of Health and Stress (NISHS), over 60 % of the current adult population of Northern Ireland has experienced a traumatic event in their lives.[31] These traumatic experiences like "unexpected death of a loved one, witnessing death or a dead body or someone seriously injured and being mugged or threatened with a weapon" accounted for "40 % of all event types experienced."[32] The highest level of death tended to occur in neighborhoods with high levels of segregation and deprivation. These neighborhoods are characterized by having a peaceline between predominantly Catholic and predominantly Protestant communities.[33] It is twice as likely that those who were unemployed would experience trauma than those employed.[34] This means that the Catholic population and others living in poverty were the most affected by traumatic events.

In a report using a geographical information system (GSI) techniques on Northern Ireland conflict's fatalities, it was discovered that from 1966 to 2007 "a greater number of fatalities were caused by members of the victim's own group than the opposition."[35] Paramilitaries usually killed the opposing group within their own territories that were either predominantly

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[30] Finola Ferry et al., "Traumatic events and their relative PTSD burden in Northern Ireland: a consideration of the impact of the 'Troubles,'" Social Psychiatry & Psychiatric Epidemiology Collection 49, no. 11 (2014): 435, EBSCOhost (94694620).

[31] Ibid, 436.

[32] Ibid, 435, 440.

[33] Victor Mesev, Peter Shirlow, and Joni Downs, "The Geography of Conflict and Death in Belfast, Northern Ireland," Annals of the Association of American Geographers 99, no. 5 (2009): 893, http://www.jstor.org/stable/20621258.

[34] Ferry et al., "Traumatic events and their relative PTSD burden in Northern Ireland: a consideration of the impact of the 'Troubles,'" 438.

[35] Mesev, Peter Shirlow, and Joni Downs, "The Geography of Conflict and Death in Belfast, Northern Ireland," 902.

Catholic or Protestant.[36] This information can undermine the notion of paramilitary justified violence as "'heroic' actions behind 'enemy lines'" and subsequently effect interpretation of victimhood.[37]

Victimhood is claimed by both Protestants and Catholics, but after the Belfast Agreement, the readdressing of discrimination towards Catholics made Protestants feel as the victim. Victimhood is a form of identity that satisfies "the need for a sense of moral worth."[38] Identity is in its nature exclusive and inclusive because that is the way it sustains itself.[39] The exclusion of aspect of identity within itself is not the issue but as Schöpflin mentions "the particular forms of it in particular situations."[40] Boundaries are a necessary factor for collectivities and can be defined through dress code to language.[41] Collective community's identity is protected through the establishment of boundaries so external factors for example, new ideas, cannot disturb the sense of collective self.[42] Collectivities must balance their exclusive and inclusive factors so they can have a steady membership because either extreme can lower membership.[43] The more a collective community is denied legitimacy of their identity they will intensify their efforts to obtain acceptance and can at times adopt values, ideas, and modes of expression from the dominant or oppressing community. In the case of the Protestant population, their need to protect their tradition or collective identity has led them to the development of the notion of "genuine" victims. This notion aids in diminishing the credibility of those who call themselves victims and who are IRA members

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[36] Ibid.

[37] Ibid.

[38] George Schöpflin, "The Construction of Identity," (Paper presented at the Österreichischer Wissenschaftstag, Vienna, 2001): 3.

[39] Ibid.

[40] Ibid.

[41] Ibid, 6.

[42] Ibid, 3.

[43] Ibid, 4.

or killed by state forces.[44] This means that the "victimiser" identity is imposed onto the Catholic community.[45]

Vamik Volkan's concept of the chosen trauma is strongly seen in Northern Ireland in both Protestant and Catholic communities because it is specific events and sentiments attached to them that are passed down through generations.[46] For Catholics the fear of Protestants wanting to dominate them is balanced by the fear of Protestant extinction and is still felt after the Belfast Agreement in social and political arenas especially Protestant parades, controversial symbols, and disagreement on victimhood.[47]

According to a study done on narrative and identity in Northern Ireland, Loyalist ritual parades are "designed to keep alive a cultural identity viewed as necessary to protect a population threatened with cultural or physical extinction."[48] This urgency to protect Protestant identity became more apparent after the Belfast agreement when for the first time Protestant parades were challenge by Catholic protesters.[49] In the Protestant community there is a zero sum mentality that is not as commonly found in the Catholic community which has slowed peace building efforts.[50] This zero sum view can be understood as collective knowledge which is vital in a person's life because it allows them to create assumptions of other people's knowledge making and becomes the criteria in which choices are based on.[51] Tension over the change of the situation were high in 2002-2003 and recently in 2013.[52] The 2012-13 Belfast city council decision to stop flying the Union Jack flack over city hall directly affected

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[44] Landon E. Hancock, "Narratives of Identity in the Northern Irish Troubles," Peace & Change (2014): 459, EBSCOhost. 98372224.

[45] Schöpflin, "The Construction of Identity," 3.

[46] Hancock, "Narratives of Identity in the Northern Irish Troubles," 447.

[47] Ibid, 447-454.

[48] Ibid, 454.

[49] Ibid.

[50] Ibid, 457-458.

[51] Schöpflin, "The Construction of Identity," 5.

[52] Hancock, "Narratives of Identity in the Northern Irish Troubles," 456.

the Loyalist identity causing riots over this decision.[53] One Loyalist and Ulster Unionist, Michael Copeland described the Loyalist sentiment, "They see the continual erosion of what they see as their identity."[54]

According to Hancock, the Loyalist community shows the strongest signs of resistance to change in historical narratives and the implementation of social changes that help the process of transforming conflict (443).[55] In the case of Northern Ireland, conflict transformation is a change "from violent and coercive methods to persuasive political ones."[56] Conflict resolution occurs in the structural change that includes changes in behavior, ideas, and the subjective redefining of in-groups and out-groups which enables a less sharp divide between the Catholic and Protestant collective identities.[57] Substantive peace depends on the ability for communities and individuals to develop new views of themselves and adversaries to enable space for dialogue, cooperation, and coexistence.[58] The development of these new views involves revaluation of the past, present, and future by those affected by the violence.[59] Maintaining peace is more of a social problem than a political problem and peace initiatives must focus their efforts on this reality.[60] Such a process can be difficult to achieve due to the sensitivity of the content but it has become the central factor in contemporary peacebuilding in Northern Ireland.[61]

Northern Ireland peace building and conflict transformation initiatives have incorporated narrative theory into their programs. Narrative theory is often connected to literature but has become important in other fields like history, media,

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[53] Ibid, 457.

[54] Ibid.

[55] Ibid,443.

[56] Smithey, *Unionists, Loyalists, & Conflict Transformation in Northern Ireland,*7.

[57] Ibid, 8.

[58] Ibid, 10.

[59] Ibid.

[60] Ibid, 225.

[61] Ibid, 10.

linguistics to philosophical ethics.[62] According to the Ohio State University's Project Narrative, narrative theory believes that narratives are a fundamental part of a human's way of understanding and coming into terms with their experience meaning time, process, and change that have had a negative impact on their lives.[63]

It is helpful to divide narratives into two different parts, the story and the discourse.[64] In other words, "the story is the 'what' in a narrative that is depicted, discourse the 'how'."[65] French literary critic and structuralist, Roland Barthes, argued that "the meaning of a story is not something revealed at the end of the story but uncovered throughout it."[66] Narratives are based on sub-plots that exist in the narrative and were the "result[s] from interactions between different characters."[67] Narratives have a purpose that an author wants to emphasize. This means that certain parts of the story are going to be left out and others highlighted in the narrative.[68] To add to the complexity of the factors of narratives the response by the audience can create misunderstandings due to the audience own interpretation and experiences.[69] Narrative theory also studies what makes the nature of narrative unique and "whether narrative as a way of thinking about or explaining human experiences contrasts with scientific modes of explanation."[70] In other words, narrative theory studies how the retelling of a story of a person's

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[62] David Herman, Brian McHale, and James Phelan, eds., *Teaching Narrative Theory* (New York: Modern Language Association of America, 2010), 4.

[63] Department of English, "Project Narrative: What is Narrative Theory?," The Ohio State University, accessed June 19, 2016, https://projectnarrative.osu.edu/about/what-is-narrative-theory.

[64] Louchart Sandy and Aylett Ruth, *Narrative Theory and Emergent Interactive Narrative* (N.p. BASE, 2010): 512.

[65] Ibid.

[66] Ibid.

[67] Ibid, 515.

[68] David Herman, ed., *Narrative Theory: Core Concepts and Critical Debates* (Ohio: Ohio State University Press, 2012): 4-5.

[69] Ibid, 6-7.

[70] Department of English, "Project Narrative: What is Narrative Theory?."

experience helps the way people perceive the world and what the people makes sense out of the story.[71]

One of the biggest challenges for peacebuilding programs in Northern Ireland is the lack agreement on a historical narrative on remembering the past and the communities' ability to move on from negative feelings associated to past events. *Healing through Remembering* (HTR)*,* a local peace building NGO, promotes a variety of formats of enabling dialogue within communities and individuals. The organization focuses on "how to deal with the past relating to the conflict in and about Northern Ireland" and creating a better future.[72] It works together with already present peacebuilding initiatives or develops its own if non existing. HTR believes that memory is a fundamental part of the human condition and there can be ways in which individuals can "remember more sensitively, inclusively, and honestly."[73] Through the experience of HTR members have learned the importance of a sound framework and principles before any hands on solutions can be implemented.[74] This is an important aspect of HTR because in the initiative it acknowledges the convoluted nature of sharing memories as a method of achieving the process of healing for affected communities and individuals. HTR is based on this question: "How should people remember the events connected with the conflict in and about Northern Ireland and in so doing, individually and collectively, contribute to the healing of the wounds of society" (Making Peace with the Past). In other words, HTR is trying to create a renarrative of the Troubles and cause a change of view on identity in Northern Ireland.[75]

Through years of experience and evaluation of peace building programs, HTR broadened what was understood traditionally as storytelling. HTR stresses that there are three

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[71] Ibid.
[72] The Healing Through Remembering Board, "Are We There Yet? Complete," Core HTR Reports, Healing Through Remembering. 2014, http://web-previews.com/healingthroughremembering/wp-content/uploads/2015/11/Are-We-There-Yet-complete_2014.pdf
[73] Ibid.
[74] Ibid.
[75] Hancock, "Narratives of Identity in the Northern Irish Troubles," 463.

formats in which storytelling is expressed: oral or verbal, written and visual, creative arts and multimedia.[76] The oral or verbal format tends to be the most known and traditional way in which a story is communicated. It involves "conversations, speeches, discussions and debates" and in legal testimonial matters it can be official statements.[77] It can be difficult to assess this type of format due to the nature of verbal communication that does not always lead to tangible results.[78] Occasionally, conversations are recorded for future use. Written accounts of conflicts are the most easily accessible form of storytelling There are several methods in which conflict stories are documented: Academic and community-based research, print media and popular literature, and novels, short stories, plays and poetry.[79] In this format, it is acceptable to use fictional events or characters to recount an experience too painful or sensitive if told in a literal way. In the last category called visuals, creative arts and multimedia, storytelling is expressed through photography, drawings, "television documentaries, videos, films, drama and performance art, exhibitions, … websites, and interactive DVDs."[80] These formats can often overlap when a story is told. HTR provides list of programs it works with that use either one or more of these formats in their peacebuilding methods and that must follow ethical principles and guideline in order to avoid aggravating traumas that may be experienced by participants.[81] Three peacebuilding programs will be discussed to help understand how

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[76] The Healing Through Remembering Board, "Storytelling as the Vehicle," Storytelling Reports, Healing Through Remembering, 2005, http://web-previews.com/healingthroughremembering/wp-content/uploads/2015/11/Storytelling-as-the-vehicle_2005.pdf, 13-14.
[77] Ibid, 11.
[78] Ibid.
[79] The Healing Through Remembering Board, "Storytelling Audit," Storytelling Reports, Healing Through Remembering, 2005, http://web-previews.com/healingthroughremembering/wp-content/uploads/2015/11/Storytelling-Audit_2005.pdf, 12.
[80] The Healing Through Remembering Board, "Storytelling Audit," 13-14.
[81] The Healing Through Remembering Board, "Are We There Yet? Complete."

the three categories of storytelling formats are applied in Northern
Ireland: Legacy (BBC Radio Ulster), "Ordinary Objects
Transformed by the Conflict," and "Ordinary Objective,
Extraordinary Times."

      "Legacy" was an initiative of BBC Radio Ulster in 1999
that involved providing short extracts of longer interviews from
anonymous interviewers on their experiences of living in
Northern Ireland during the conflict.[82] The main goal was to
empower individuals by giving them a voice. Most of the
participants lived in border areas where most the violence was
known to occur and from a variety of backgrounds. As part of the
policy in the initiative interviewees were involved in the process
of creating the short extracts of the longer interview so it could be
broadcasted on the radio.[83] The main focus of the experiences
shared was on the conflict. Eventually, these interviews were
made available on CD and a book of transcripts was created. In
the book, the extracts were kept anonymous as it was originally
meant by the Radio transmissions.[84]

      In the "Everyday Objects Transformed by the Conflict"
project, ordinary objects or in other words used in the day to day
basis are put on exhibit. These objects have stories behind them
during the Troubles and the exhibits or events concerning them
are created to be interactive and educational. This allows
communities to develop a better understanding of the past and
conflict.[85] Objects are not the only things people will learn about
in the exhibits or events but at the same time they will be learning
about different cultures. The exhibits are designed by
communities themselves and the variety objects from different
sides of the conflict will be housed together with great respect to
increase respect and tolerance for all. The project was initiated by
Living Memorial Museum (LMM) and it is financially dependent
on the funding given to HTR.

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[82] The Healing Through Remembering Board, "Storytelling Audit," 69.
[83] Ibid.
[84] Ibid.
[85] The Healing Through Remembering Board, "Are We There Yet?
Complete."

Even though the "Everyday Objects Transformed by Conflict" was made as a living memorial museum due to the changing nature of stories and narratives another project was able to spin off from it. "Ordinary Objects, Extraordinary Times" is eight short films of personal stories behind ordinary objects held close by individuals affected by the Troubles. These stories are also featured in the "Everyday Objects Transformed by Conflict" project. These films are an examples of visual and oral methodology.[86] They use emotional music and the stories include people from different generations which allows one to see the Troubles through different perspectives during the period from an elementary school child who taped the classroom windows in case of an attack to a mother who lost her son. In the videos, people are sitting facing the camera with the chosen ordinary object and they share their stories. Many participants start their story describing the object and their occupation during the stories they are going to share. There are two stories that explore the definition of a victim or the daily struggle during the Troubles. In one of the stories a milk glass bottle is the object chosen by a young Protestant man to make petrol bombs. He explains that even though he now understands that his actions back then were wrong he was a victim of the time period.[87] He grew up in a predominantly Loyalist neighborhood where he learned to view the world in a sectarian way.[88] He admits that he didn't realize that he practiced sectarianism because it was just the way he was brought up. This molded his view on life at the time.[89] For him there was no other way but to use violence to protect his people from the other, i.e., Catholics. The second story, is of a security officer who shares his story on a clipboard check point officers used as bullet proof protection in case they were attacked during

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86 Ibid.
87 David Allen, "Jackie McBurney," Healing Through Remembering, 2013, http://healingthroughremembering.org/resources/films/milk-bottle/.
88 Ibid.
89 Ibid.

the line of duty.[90] He mentions that the clipboard is a reminder of the daily struggles officers had to endure during the violent period that people do not notice.[91]

In one of the projects there was an oral part to them when it came to the sharing of stories. In many of the stories there was at least a period between the Troubles and when the person shared their stories. Even though not said directly to the reader or audience, many of these initiatives would not be possible without the understanding that individual and societal healing can only occur once the pain of the past is acknowledged.[92] In the case of the Loyalist young man, he was a victim of being born into a community that encouraged violence and the zero sum mentality. Even though he views himself as a victim he acknowledges his past use of violence. The fact that he believes he is a victim creates not only a change in the participant's view on his actions but also, the audience listening to what he has to say. Views on what defines victims is challenged by his story but allows for shared learning and a reinterpretation by the listeners. The story of the security officer broadens a person's understanding of the Troubles by giving a look of the daily struggles officers had to face. This is important because historical narratives tend to revolve around one event traditionally when understanding history.[93] In the Legacy project, interviewees were part of the extracting process allowing them not to be left feeling as subjects of an experiment but as human beings with dignity and respect. The fact that the aim of this project was to give people a voice meant that no story was ignored or one above the others making it

[90] David Allen, "Roger McCallum," Healing Through Remembering, 2013, http://healingthroughremembering.org/resources/films/clipboard/.
[91] The Healing Through Remembering Board, "Are We There Yet? Complete."
[92] Ibid.
[93] The Healing Through Remembering Board, "Stories Network on Oral History elements of the Stormont House Agreement," Storytelling Reports, Healing Through Remembering, http://web-previews.com/healingthroughremembering/wp-content/uploads/2015/11/TSN_Briefing_Paper_on_SHA_FINAL_Oct_2015.pdf.

possible to empower individuals and communities.[94] Finally, majority of the initiatives take a considerable amount of time and committed to establishing long term relationships meaning that the outcomes of these efforts are probably more stable.

The purpose behind sharing these stories is often mentioned by participants as a way to eliminate the possibility of repeating the violent events of the Troubles. The use of narrative by these peace building initiatives are well intended but the sensitive and emotional nature of narratives and storytelling makes it a delicate matter. If programs are not carefully structured narratives can be used negatively and this can result with disastrous outcomes. From the terminology used by facilitators or participants to the participant's own reaction to stories can end up causing disputes, negative sentiments, and eventually, violence. For example, a facilitator, if part of the program, must be careful when using the term fact to describe something because communities probably do not have the same historical narrative in this case, on the violent events during the Troubles.[95] For example, in the "Everyday Objects Transformed by Conflict" exhibit, local communities are given the chance to design the exhibits. This can be a delicate matter because depending on how the exhibit is designed will it affect the audience participation and the way objects and their stories are interpreted.[96] The location and timing of initiatives is just as crucial. Narrative theory can establish positive relationships between communities but this does not mean that systemic change will occur.

[94] Kieran Hegarty, ed., Legacy: A Collection of Personal Testimonies from People Affected by the Troubles in Northern Ireland, (N.p., Elucidate Consultancy, 2007).

[95] The Healing Through Remembering Board, "Stories Network on Oral History elements of the Stormont House Agreement."

[96] The Healing Through Remembering Board, "Evaluation of Response to 'Everyday Objects Transformed by the Conflict' Exhibition," Living Memorial Museum Reports, Healing Through Remembering, 2013, http://web-previews.com/healingthroughremembering/wp-content/uploads/2015/11/HTR_-_Evaluation_of_Response_to_EOE.pdf, 37.

HTR is a well-known group that is often cited by several Northern Ireland peacebuilding and post-conflict programs for its use of narrative theory. It emphasizes the use of storytelling in the process of testimony as one of the recommended ways to strengthen peacebuilding methods. It provides guidelines, evaluations, and reports on different programs and is often based on years of experience. This information is often provided online and can be freely accessed by other programs meaning that their influence in the field of narrative theory is unlimited. Recently the works and results of initiatives like HTR have greatly influenced the areas of politics in Northern Ireland. On 2015, a large step was taken by the government with the proposal of the Stormont House Agreement which covers a variety of topics to ensure a better future by carefully constructing the legacy of the Troubles.[97] The Agreement helps finance efforts to handle existing paramilitaries, organized crimes, and help develop a stable government for peace.[98] Even though there is still some disagreement over certain details of agreement, it is an obvious sign of effort by the power-sharing government to help Northern Ireland transcend the past.

Northern Ireland falls under Brewer's "post-violence" society having had a transition from physical and communal violence to non-violent means. Tension or separate collective identities change in relation to others.[99] Due to being in the transitioning phase, changes involving new policies and practice more slowly due to the deep history of the division between the Catholics and Protestant communities.[100] Also, the violence that people had to face during The Troubles is still fresh in many people's memories.[101] Signs of segregation are still visible in the city of Belfast with its historically segregated Catholic and

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[97] "Northern Ireland Political Crisis: Politicians and Key Figures React to Fresh Start Agreement."
[98] Ibid.
[99] Smithey, *Unionists, Loyalists, & Conflict Transformation in Northern Ireland*, 7.
[100] Ibid, 8.
[101] Ibid, 10-11.

Protestant neighborhoods.[102] Active membership in religious communities in Northern Ireland is still quite important but there has been a decline in the importance of religious traditions. This can give hope for a tolerant society in the years to come.[103]

As seen in HTR, narrative theory as a method tries to tackle sectarian beliefs and trauma in a post-violent society that Northern Ireland is categorized as. The nature of narratives allows to tackle negative sentiments and sectarian mentality by creating a safe place for shared learning. Storytelling and narrative in itself is complicated due to inner motives, emotions, and chosen trauma. Even though it is a difficult process to share experiences it is also, psychologically better to pass through this process than to deny or repress grief or trauma so that in the future anger and frustration does not lead to violence.[104] The fact that applied narrative theory can be used as therapy can lead to the construction of shared values which can help to establish systemic change but if not carefully structured can lead to violence.

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[102] Cooney and Christina Healey, "Northern Ireland."
[103] Ibid.
[104] Cochrane, *Ireland the Reluctant Peace*, 293.

Bibliography

"Civil Rights March 1969." BBC News. Accessed June 16, 2016.
        http://news.bbc.co.uk/hi/english/static/northern_ireland/un
        derstanding/themes/civil_rights.stm.

"Northern Ireland Political Crisis: Politicians and Key Figures
        React to Fresh Start Agreement." BBC News. November
        17, 2015. http://www.bbc.com/news/uk-northern-ireland-
        34843790.

Bibliography: Allen, David. "Paddy Gallagher." Healing
        Through Remembering. 2013.
        http://healingthroughremembering.org/resources/films/pho
        tograph/.

Bibliography: Allen, David. "Alex Bunting." Healing Through
        Remembering. 2013.
        http://healingthroughremembering.org/resources/films/coi
        ns/.

Bibliography: Allen, David. "Gerard Murray." Healing Through
        Remembering. 2013.

Bibliography: Allen, David. "Jackie McBurney." Healing
        Through Remembering. 2013.
        http://healingthroughremembering.org/resources/films/mil
        k-bottle/.

Bibliography: Allen, David. "Karen Nickell." Healing Through
        Remembering. 2013.
        http://healingthroughremembering.org/resources/films/sell
        otape/.

Bibliography: Allen, David. "Margaret McKinney." Healing
        Through Remembering. 2013.

http://healingthroughremembering.org/resources/films/har
monica/.

Bibliography: Allen, David. "Roger McCallum." Healing
Through Remembering. 2013.
http://healingthroughremembering.org/resources/films/clip
board/.

Bibliography: Allen, David. "Vincent Dargan." Healing Through
Remembering. 2013.
http://healingthroughremembering.org/resources/films/tap
e-recorder/.

Cochrane, Feargal. *Ireland the Reluctant Peace.* New Haven:
Yale University Press, 2013.

Cooney, Martha and Christina Healey. "Northern Ireland." *Salem
Press Encyclopedia.* (2014): EBSCOhost. 88391149.

Coulter, Colin and Muray, Michael, eds. Northern Ireland After
the Troubles: A Society in Transition. Manchester:
Manchester University Press, 2008.

Department of English. "Project Narrative: What is Narrative
Theory?." The Ohio State University. Accessed June 19,
2016. https://projectnarrative.osu.edu/about/what-is-
narrative-theory.

elements of the Stormont House Agreement." Storytelling
Reports. Healing Through Remembering. http://web-
previews.com/healingthroughremembering/wp-
content/uploads/2015/11/TSN_Briefing_Paper_on_SHA_
FINAL_Oct_2015.pdf.

Ferry, Finola, Brendan Bunting, Samuel Murphy, Siobhan
O'Neill, and Dan Stein. "Traumatic events and their
relative PTSD burden in Northern Ireland: a consideration

of the impact of the 'Troubles.'" Social Psychiatry &
Psychiatric Epidemiology Collection 49, no. 11 (2014):
435-446. EBSCOhost (94694620).

Hancock, Landon E. "Narratives of Identity in the Northern Irish
Troubles." Peace & Change (2014). EBSCOhost.
98372224.

Harbison, Brooks. "Narrative Therapy." YouTube video, 7:42.
Posted December 2, 2014.
https://www.youtube.com/watch?v=nrTkPGbyRMA.

Hartner, Marcus. "Basic Concepts of Narrative Theory: A
Polyphonic View." Journal of Literary Theory (2013).
http://www.jltonline.de/index.php/reviews/article/view/58
8/1412.

Hegarty, Kieran, ed. *Legacy: A Collection of Personal
Testimonies from People Affected by the Troubles in
Northern Ireland.* N.p. Elucidate Consultancy, 2007.

Herman, David, Brian McHale, and James Phelan, eds. Teaching
Narrative Theory. New York: Modern Language
Association of America, 2010.

Herman, David, ed. *Narrative Theory: Core Concepts and
Critical Debates.* Ohio: Ohio State University Press, 2012.
http://healingthroughremembering.org/resources/films/tob
acco-tin/.

Mesev, Victor, Peter Shirlow, and Joni Downs. "The Geography
of Conflict and Death in Belfast, Northern Ireland."
Annals of the Association of American Geographers 99,
no. 5 (2009): 893-903. EBSCOhost.
http://www.jstor.org/stable/20621258.

Narrative Therapy Centre of Toronto. "About Narrative
        Therapy." June 4, 2016,
        http://www.narrativetherapycentre.com/narrative.html.

PBS. "Bloody Sunday (Jan 30, 1972) The Watershed." Accessed
        June 20, 2016.
        http://www.pbs.org/wgbh/pages/frontline/shows/ira/confli
        ct/bloody.html.

PBS. "The 1968 Civil Rights Movement." Accessed June 20,
        2016.
        http://www.pbs.org/wgbh/pages/frontline/shows/ira/confli
        ct/civil.html.

PBS. "The IRA/ Provos." Accessed June 20, 2016.
        http://www.pbs.org/wgbh/pages/frontline/shows/ira/confli
        ct/provos.html.

Roberts, Adams and Timothy G. Ash, eds. Civil Resistance &
        Power Politics: The Experience of Non-Violent Action
        from Gandhi to the Present. Oxford: Oxford University
        Press, 2011.

Sandy, Louchart and Aylett Ruth. Narrative Theory and Emergent
        Interactive Narrative. N.p. BASE, 2010.
        http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.
        111.1320.

Schöpflin, George. "The Construction of Identity." Paper
        presented at the Österreichischer Wissenschaftstag,
        Vienna, 2001. http://documents.mx/documents/schopflin-
        the-construction-of-identity.html.

Shmoop Editorial Team. "Narrative Theory." Shmoop University,
        Inc. Last modified November 11, 2008. Accessed June 23,
        2016. http://www.shmoop.com/narrative-theory/.

Smithey, Lee A. Unionists, Loyalists, & Conflict Transformation in Northern Ireland. Oxford: Oxford University Press, 2011.

The Healing Through Remembering Board, "Evaluation of Response to 'Everyday Objects Transformed by the Conflict' Exhibition" Living Memorial Museum Reports. Healing Through Remembering. 2013. http://web-previews.com/healingthroughremembering/wp-content/uploads/2015/11/HTR_-_Evaluation_of_Response_to_EOE.pdf.

The Healing Through Remembering Board. "Are We There Yet? Complete." Core HTR Reports. Healing Through Remembering. 2014. http://web-previews.com/healingthroughremembering/wp-content/uploads/2015/11/Are-We-There-Yet-complete_2014.pdf.

The Healing Through Remembering Board. "Stories Network on Oral History Elements of the Stormont House Agreement." Storytelling Reports. Healing Through Remembering. http://web-previews.com/healingthroughremembering/wp-content/uploads/2015/11/TSN_Briefing_Paper_on_SHA_FINAL_Oct_2015.pdf.

The Healing Through Remembering Board. "Storytelling as the Vehicle." Storytelling Reports. Healing Through Remembering. 2005. http://web-previews.com/healingthroughremembering/wp-content/uploads/2015/11/Storytelling-as-the-vehicle_2005.pdf.

The Healing Through Remembering Board. "Storytelling Audit." Storytelling Reports. Healing Through Remembering. 2005. http://web-

previews.com/healingthroughremembering/wp-
content/uploads/2015/11/Storytelling-Audit_2005.pdf.

The Storytelling Sub Group. "Ethical Principles - Storytelling and
        Narrative Work relating to the Conflict in and about
        Northern Ireland." Storytelling Reports. Healing Through
        Remembering. 2009. http://web-
        previews.com/healingthroughremembering/wp-
        content/uploads/2015/11/Ethical_Principles_for_Storytelli
        ng_and_Narrative_Work_HTR_2009.pdf.

Ulster University. "Summary of Status of the Person Killed."
        Malcom Sutton: An Index of Deaths from the Conflict in
        Ireland. Accessed June 19, 2016.
        http://cain.ulst.ac.uk/sutton/tables/Status_Summary.html.

Wave Trauma Centre. "Outline of Stormont House Agreement."
        November 11, 2015.
        http://www.wavetraumacentre.org.uk/news/outline-of-
        stormont-house-agreement.

The Effects of Veteran Status on opinions on Government Confidence
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According to the literature involving group uniformity, possessing a defining categorization results in uniform perspectives. A defining categorization is to put -someone or something into a group of similar people or things (Merriam Webster Dictionary). Veteran status, for example, is a defining categorization. Specifically, Ashforth and Mael (1989) argue that social identification has motivational and behavioral consequences. Specifically, a high level of identification leads an individual to engage in behaviors that are congruent with the identity and expressions of that identity (1989). These results occur with the formation of varying social identities, or group identities, although there are sometimes conflicting results on the effects of group uniformity, because of the changes on the perspective of how social pressure also shapes our decisions. Cohesion, for example, may operate through group schema or shared perceptions of competence among group members, which collectively may enhance member cohesiveness and perceptual consensus or groupthink (Griffith 2007). This study investigates how a person's being defined as a veteran correlates with opinions on confidence in the U. S government. Survey data from the 2012 General Social Survey year was employed and analyzed with the use of ordinary least squared regression. A limitation in survey questions available exists; further questions into how the type of conflicts society is facing at various time periods would

*have to be analyzed to see how this affects acceptability or one's
perspective changed.*

The formation of label characteristics or social identities
is a very dynamic process. The justification of these labels
adapts as the condition of the environment alters. Labels at times
can be applied inappropriately to define a group or individual as
one tries to align information one knows or possesses with
judgments to create a more complete set of information. This
dynamic can often deviate with the values that groups are
thought to encompass or revolve around and the notions of what
people think that their ideal societal image should be like. By
lacking an ideal of what makes up the criteria of any one group
it makes it essentially impossible to know how one would
respond to issues without making assumptions. One of the
prominent labels that can be found in America, for example, is a
person's veteran status. Identifying as a veteran means that you
served in the military for some length of time and that you meet
certain criteria associated with military service. Due to the
nature of the service, listening to or accepting commands or
orders is common; once in the military service, you are forced to
be in uniform with many individuals, meaning that you are seen
as a whole rather than an individual, as well as there being
several conditions that mandate the adaptation of a certain mind
set.

Based off these notions, veteran status or experience may
influence how a person feels about decisions that are made by
those in authority or power, such as the executive branch. The
research question of this paper is, How does veteran status affect
one's opinion on government confidence levels, and is sense of
obedience also a contributing factor? Multiple variables can
cause deviations in response, such as whether you can define
your identity as being isolated, whether an individual thinks as a
group, and the level of obedience you reflected. In terms of
isolation, being social or even as little as interacting with the
world, one can see how labels, identities and defining
characteristics are constantly forming in order to organize

information and to create a sense of identity. For group thinking there exist effects that correlate to the behavior that is necessary for the capability of working in a group. In terms of obedience this is certainly a principle that is practiced in the military and, generally, would call for an order or similar consensus. This influence may vary over time based on the duration of years of service in the military

Literature review

In the literature a broad perspective of why opinions are formed can be based off of three different categories: how we see ourselves as individuals; how we think of ourselves as belonging to a group or groups; and, how we are confined to follow structures due to obedience. As individual categories these three subjects are used to define how we interact in society as a structure. Through these perspectives, labels are assigned and consensuses are formulated. Through the literature, the impacts of these three perspectives can be compared to see how specifically the label "veteran" can have an effect on an individual's perspective on government confidence and how and why attitudes toward obedience can also have a modifying effect.

Isolation effects

As a population, we tend to isolate information and people that are relevant to us using something called heuristics, which primarily sort out information to make our lives easier. This desire for making judgments simpler can be defined through two concepts, first heuristics, and secondly social identity. A heuristic is a mental shortcut that allows people to solve problems and make judgments quickly and efficiently (Twenge & Myers 2015) Theses heuristics lead individuals to make judgments of the information that is immediately available to them, or that is simply convenient. Heuristics, then, can become unjustifiable facts that formulate into bias and labels. Firmer and Gauche (2013), for example, use social identity theory. Social identity theory is defined as a person's sense of who they are based on their group membership. This theory identifies two goals: first, a person's identity cognitively

segments and orders the social environment, providing the individual with a systematic means of defining others. Second, it allows or enables the individual to locate or define themselves in the social environment or context in which one finds themselves, effectively creating in groups and out groups (Ashforth & Mael 1989). These in groups and out groups signify who we relate with and thus create and form a basis of how we create our opinions, which creates a scenario where it is generally us the character we identify with versus them, the party that is effectively alienated. Opinions, then, no longer remain simply individualistic or product of obedience, but instead becomes a group consensus. This process is deemed as isolation as through this process it creates what conceptually can be considered a 'breed', like one might see with types of animals that belong to the same species.

Group thinking

As social identity is formed this creates not only separation into groups through isolation, but also elicits the need for the formation of similar thoughts. There are multiple avenues for this process to occur. In Zimbardo prison study (1971), for example, one can see two primary principles occurring: first a term coined by Perkins and Berkowitz called social norms and secondly a phenomenon called deindividuation. A social norm is defined as the rules of behavior that are deemed as acceptable to the group. Deindividuation is defined as the loss of one's identity as an individual in exchange for a position as a member of the group. In the Zimbardo study, within the guards and the prisoners there was a transformation of the thought processes of both groups, as one group assumed what their role was supposed to be and the other group, the behavior of the other participants. These two phenomena naturally occur in life and are further seen in a dynamic called groupthink.

Groupthink is defined as the practice of thinking or making decisions as a group in a way that discourages creativity or individual responsibility. This theory is found amongst a wide variety of groups and depends on three main factors-- high group cohesiveness; faults in the structure situational context, such as

stress; and, expectations (Hart 1991). In addition to stress there are many reasons such as for the need of order and easy and rapid acceptance of commands in a structure like the military. Thinking as a group can be both a positive and negative concept depending on the situation. Overall, because of this conforming of ideals, this challenges the ability to distinguish between what is an original idea and a response that is fed by one's identity as a member of the group. When one is only able to consider a member of a group's opinions this is called herd mentality, which describes how people are influenced by their peers to adopt certain behaviors, follow trends, and/or purchase items. When this factor stacks up on each other formation of individualism, opinions are further challenged.

Obedience and the military effects

Obedience is defined as a form of social influence that involves performing an action under the orders of an authority figure (Myers 2015). Obedience can be summarized by the work of three theorists: Stanley Milgram, Herbert Kelman, and Philip Zimbardo. One of the original models concerning obedience was defined in Stanley Milgram's study in 1963, where he pushed the boundary of how authority elicits obedience. This study's findings created the notion that people are more obedient when the individual finds that the individual over them holds a more authoritative position. In his study, Zimbardo transformed college students into prisoners and prison guards. This study created a vivid picture of the power authority has in a situation over compliance and identity formation. By the end of the study, the student "guards" were wholeheartedly committed to their role personalities—personalities that did not match who they were previously. Similarly, the student "prisoners" were so integrated into their roles that they simply forgot they could have gone home at any time.

According to Herbert Kelman, there are three main reasons we are compliant. These are compliance, identification, and internalization. With compliance, attitude is focused on gain, thus a concept is accepted publicly, but internally one may feel different. In –identification, beliefs are binding and

accepted. And, finally, in internalization, one finds rewards available (Kelman1958). These theorist explanations and studies reflect that obedience revolves in mass due to the acceptance of a principle internally and externally due to values that one holds and external motivation and pressure. Due to these many justifications, one's described belief, opinion, or judgement is put in retrospective to what is required of the individual due to environmental factors. This process allows the individual to maintain cohesiveness with the existing structure.

  Obedience in the form of authority may also be contradictory in regards to service. In a 1950 study, for example, researchers conducted a survey measuring authority to figures during the first week of training and year afterwards. The results showed that training caused authority to decrease due to dissatisfaction in conditions and other variables (Campbell &McCormack1957). Others studies were repeated such as one conducted with a German army in 1967, 10 years later, to see if the results could be repeated if the study was extended to 17 months, and, if education and age could have an effect due to maturation. The end results were that there was generally a significant decrease in authority, specifically on the obedience, and respect items from time entering service to the time of ending of service (Roghmann and Sodeur1972). This result was questioned, still later, in 2007, in favor of group cohesion of the effect of social support. These theories are based off of the effects of how stress can cause bonding between the groups and displayed how examining relatively new members exclusively to the military can lead inaccurate results (Griffith 1988).

  In this literature, the overall gap in what we know revolves around the influence of authority in reference to social identity. What is known is that there is importance in creating distinctions from what one defines as being similar to oneself and what is isolated as being foreign when it comes to the formation of identities and opinions. Likewise it also known that the formation of groups will result in creating an identity that acts as a unifying label, thus creating a purpose for thinking similarly. These two categorical identifications are similar in

existence; however, they create different results when it comes to the importance of obedience. Thus, through the literature, our questions challenge the importance of a label effect on the opinion of authority figures in an attempt to see if it is a matter of obedience or simply social identity

Hypothesis

Due to the ties that the military has with the government body, the hypothesis tested here is that the longer an individual served in the military will correlate with having higher levels of confidence in the federal government. While attitudes towards obedience will be shown to have a positive correlation with levels of confidence in government, is this result affected by obedience solely due to the fact that authority figures act in administrating roles that also function as a form of identity? With the existence of authority figures it becomes important to know the individual effects of individuals and groups when concerning the opinions on authority figures.

Methods

To test these hypotheses, this study utilized the 2012 General Social Survey (GSS), a nationally representative survey that has been conducted regularly by the National Opinion Research Center since 1972. The sample for this study contained 1974 respondents (44.9% male, n = 886; and 55.1% women =1088).

The dependent variable for this study is an indication for political confidence in government body. Confidence in government was created by aggregating participants' self-reports for first for three questions (see Table 1) for confidence in government. The questions here included confidence in federal government, confidence in the United States Supreme Court, and confidence in the United States Supreme Court. These questions were measured on a 3-point scale ranging from "hardly any" to "a great deal". The Cronbach alpha score for these index was .619 for confidence, which is an acceptable measures for internal consistency.

Independent variables included measures for political efficacy or sense of influence on government, veteran status,

education, obedience, party identification and sex. Political efficacy reflects an individual's sense that their political participation makes a difference. Questions here included the respondent's view that "often congress keep promises" and that the "average person can influence politics." The variable for veteran status was measured by the number of years an individual served in the military. Education was measured by the highest year of education completed. The variable for obedience asked how important is to obey and ranged from least important to most important on a 5 point scale. The variable for sex separated the sample into males and females, with males coded as 0 and females as 1. The hypothesis of this paper will be tested by bivariate correlation analysis and multivariate linear (ordinary least squared (OLS)).

Table 1 Dependent and Independent Variables Used

Dependent Variable	Variable Label:	Values
Confidence in government Confed Conjud Conleigis	Confidence in the executive branch Confidence US supreme court Confidence in congress	1 hardly any 2 only some 3 great deal
Independent Variable	Variable Label:	Values
Vetyears	Number of years in the military	0= none 1= less than 2 years 2=2 to 4 years 3=more than 4 years 4= some do not know how long
Obey	To obey	1= least important 2= 4th important 3= 3rd important

		2= 2nd important
		1= most important
Sex	Dummy Variable	0= male 1= female
Educ	Highest level of education achieved	1-20 years
Political Efficacy or Influence POLEFY3 POLEFY11 POLEFY16 POLEFY17	Average person influence on politics How much say about what government does? How often congress keeps promises. How many government admins can be trusted to do what is best.	1=None 2=a little 3=some 4=quite a bit 5=a great deal

Results

A bivariate correlation was used first to examine the correlations between the independent and dependent variables as a preliminary test for multicollinearity (see Appendix A). The correlation matrix showed that overall the independent variables were not very strongly related, thus there was no fear of multicollinearity. The two closest related variables the dependent variables, which were influence in government and confidence in government, were found to be negatively correlated with a correlation score of -.400, which signals that as a person's perception of their influence in government increases, the respective influence in government decreases.

To test the hypotheses, a OLS regression model was with the measuring confidence in government as the dependent variable,(see Table2, Model 1) This model explained 17.5 % (F-test=7.618, prob.=.000) of the variance in confidence in government. Of the remaining independent variables only obedience was found to be statistically significant (t scores = 2.035; prob=.000). For obedience, the relationship did not

explain much of the variation but was positive (standardized beta coefficient = .237) indicating that confidence in government is stronger as levels of obedience is increases.

The hypothesis of there being a positive relationship between veteran status and confidence in government, on the other hand, was not found to be significant (t score =-.635), but it was also negative (with a beta coefficient of -.131), meaning that being a veteran is not related to confidence in government and explained relatively very little variation in the data.

As an independent variable, influence on government was found to be significant with a negative moderate to weak effect on confidence in government with a beta coefficient of -353, meaning that as one's perceived influence of government increases, confidence in government decreases. Of all the independent variables, this variable explained the most variation in the confidence in government.

The highest degree of education completed was used as a measurement of comparison; however, this was not found to be significant, and explained relatively little variance in the data with a beta coefficient of -.120. The polarity of this variable also explains that as one completes a higher degree of education, there is a very minor drop of confidence in government. The political party variable was also utilized to try to measure if grouping in political parties would have a relationship with confidence in government, however with a beta coefficient of .021 this variable had almost had no impact. The final variable age also had very little effect with a beta coefficient of .072

Table 1: OLS Confidence in Government (Model I)

	Unstandardized Coefficients		Standardized coefficients		
	B	Std. Error	Beta	T	Sig
(Constant)	13.003	.982		13.244	.000
Years in Armed Forces	-.131	.192	-.039	-.685	-.494
Highest years school completed	-.010	.047	-.120	-.218	.827
To Obey	.237	.117	.115	2.035	.043
Other political party	.027	.071	.021	.376	.707
influence on government	-.353	.050	-.387	-7.022	.000
Age	.011	.008	.072	1.270	.205

Adjusted R^2=.175: F=.000

Discussion

The results of this paper were not in as in depth as was hoped, and overall findings were found to have mixed results. Out of the proposed hypothesis, only one out of the two was found to be true. First, in accordance to veteran status there was found to be a negative correlation with confidence in government, meaning that the relationship between these two variables shows that being in the arm forces for a longer period of time would correlate to having lower satisfaction levels with government confidence. This could have occurred for many reasons, such as military experience can cause overall dissatisfaction due to decisions made by higher ups.

On the other hand, the hypothesis of obedience was a positively correlation with confidence in government and accepted.   This means that confidence in government levels is higher as obedience is seen as being more important. As confidence in a leader's skills could be seen an important factor to whether or not that figure is obeyed, thus it would make sense that this variable would be significant.

Limitations

Measures in this study were limited in multiple dimensions, such as with the number of veterans measured in our sample. Out of the 1,972 participants, only 12 percent (226) of the sample were considered as veteran. In regards to opinion likely the results of this research would have varied if it was studied over a longer duration of time; however due to the variables available, this study was conducted with only 2012 data. For example, the bandwagon effect, which is a psychological phenomenon whereby people do something primarily because other people are doing it, regardless of their own beliefs, which they may ignore or override, could not be assessed with these data. "In the context of elections, the bandwagon effect refers to the notion that voters are more likely to vote for a candidate if they expect the candidate to win" (Kiss & Simonovits 2013) This is explained to occur due to two reasons: that it is desirable to conform out of a fear of the consequences of non-conformity. The second proposes that individuals take the opinions of others in addition to make decisions (Hodgson & Maloney 2013). In addition, although this was an anonymous study, the saliency of the topics being analyzed, especially as to views of the government as a topic, might have biased the responses and perceptions. Thus the time period this information was gathered is important, as the results could have been affected by an overall opinion on an issue that would have affected the results of a participants' survey answers. Take, for example, an article titled "Do the Compensatory Effects of Outcome and Procedure on Policy Acceptance Depend on Trust in Authority?", which examined how favorability causes shifts in trust in authorities. Even if this issue cannot be completely removed by studying

multiple years, however, the shift in opinion due to an overlap over time should remove this issue. In addition, the variable to obey was based off of simply one question; how important to you is obedience is a very vague question. Obedience can vary vastly based off of conditions in which one is required to obey and thus question how important is it for you to obey, and can deliver very mixed results. While it may seem beneficial as it very direct, it lacks many important elements, such as ethics and loyalty.

Future Directions

If this research were to be expanded, one of the aspects that would be researched would be loyalty. In article titled "Political Conservatives' Affinity for Obedience to Authority Is Loyal, Not Blind", the existence of obedience in regards to political affiliation is analyzed, and overall decided that political affiliation results in the perspective of what obedience is to be challenged. However it was found that neither party was found to be more obedient then the other (Frimer, Gaucher, & Schaefer 2014). Originally, the party identification variable was supposed to be used in order to further define the differences in the individuals' social identities; however, this likely was enough as it was seen in the article further values were studied by looking at occupations that were typically Republican or Liberal, which in theory should provide analyses of further values that the participant might or might not possess. In retrospect, in what should be defined as obedience would need to be redefined as Passini and Morselli argue "they need to be broken down further into constructive and destructive obedience and anti-social and pro-social disobedience" (2009). These aspects can be considered as the positive aspects to this research; the negative aspects such as racial bias and different variables would interfere, such as being a social outlier such as an extremist would also have to be studied. Currently this research examines the data from the perspective that every individual in a group is cohesive and generally unified. However, this is likely not the case. At some point in taking these surveys, the participants must have formed a negative perspective or have dissatisfaction in the confidence levels of the government, yet at no point is the reason for this

verified, as the data only looks at homogeneity and not incongruence.

Conclusion

The portion of the hypothesis that tested veteran status as correlated to having higher government confidence levels was found to be insignificant and had an opposite effect from what was expected. This signified that veteran status actually had a very minor effect on decreasing government confidence levels. However, the second hypothesis was found to be significant, which showed that as obedience is seen as being more important, people report higher levels of government confidence.

References

Ashforth, B., & Mael, F. (1989). Social Identity Theory and the Organization. The Academy of Management Review, 14(1), 20-39.

Barnard, C. I. (1968). The functions of the executive. Cambridge: Harvard University Press.

Campbell, D., & McCormack, T. (1957). Military Experience and Attitudes Toward Authority. American Journal of Sociology, 62(5), 482-490. Retrieved from http://www.jstor.org/stable/2773241

Bornstein, B H, & Tomkins, A J (2015) Motivating cooperation and compliance with authority: The role of institutional trust Switzerland: Springer international

Blass, T, & Schmitt, C (2001) The nature of perceived authority in the milgram paradigm: Two replications Current Psychology Curr Psychol, 20(2), 115-121

Frimer, J A, Gaucher, D, & Schaefer, N K (2014) Political Conservatives' Affinity for Obedience to Authority Is Loyal, Not Blind Personality and Social Psychology Bulletin, 40(9), 1205-1214

Griffith, J. (1988). Measurement of group cohesion in US Army units. Basic and Applied Social Psychology, 9(2), 149-171.

Hodgson, R., & Maloney, J. (2013). Bandwagon effects in British elections, 1885-1910. Public Choice, 157(1/2), 73-90. doi:10.1007/s11127-012-0027-9

Kelman, H. C. (1958). Compliance, identification, and internalization: Three processes of attitude change. *Journal of conflict resolution*, 51-60.

Kiss, Á., & Simonovits, G. (2014). Identifying the bandwagon effect in two-round elections. Public Choice, 160(3/4), 327-344. doi:10.1007/s11127-013-0146-y

Morselli, D, & Passini, S (2012) Disobedience and support for democracy: Evidences from the World Values Survey The Social Science Journal, 49(3), 284-294

Myers, David G., and Jean M. Tweange. Social Psychology. 12th ed. Boston: McGraw-Hill, 2016. Print.

Oskamp, S. (1977). Attitudes and opinions (3rd ed.). Englewood Cliffs, NJ: Prentice-Hall

Passini, S, & Morselli, D (2009) Authority relationships between obedience and disobedience New Ideas in Psychology, 27(1), 96-106

Paul't Hart. (1991). Irving L. Janis' Victims of Groupthink. Political Psychology, 12(2), 247-278.

Wu, X, & Wu, X (2015) Do the Compensatory Effects of Outcome and Procedure on Policy Acceptance Depend on Trust in Authority? Social Behavior and Personality: An International Journal Social Behavior Personal, 43(9), 1429-1440

Roghmann, K., & Sodeur, W. (1972). The Impact of Military Service on Authoritarian Attitudes: Evidence from West Germany. American Journal of Sociology, 78(2), 418-433. Retrieved from http://www.jstor.org/stable/2776504

Zimbardo, P. &G. Haney, C. (1971, August). Stanford Prison Experiment. Encyclopedia of Psychology and Law. doi:10.4135/9781412959537.n295

		Confidence in government	other political party	Age	Highest year of school completed	influence on government	Years in armed forces
Confidence in government	Pearson Correlation	1	.081	.	-.004	-.400	.028
	Sig. (2-tailed)		.004	.	.875	.000	.322
	N	1273	1265	1273	1273	295	1272
Other political party	Pearson Correlation	.081	1	.	-.014	-.152	.014
	Sig. (2-tailed)	.004		.	.538	.000	.540
	N	1265	1960	1960	1959	578	1958
Highest year of school completed	Pearson Correlation	-.004	-.014	.	1	.187	.037
	Sig. (2-tailed)	.875	.538	.		.000	.098
	N	1273	1959	1972	1972	583	1971
influence on government	Pearson Correlation	-.400	-.152	.	.187	1	-.030
	Sig. (2-tailed)	.000	.000	.	.000		.474
	N	295	578	583	583	583	583
Years in armed forces	Pearson Correlation	.028	.014	.	.037	-.030	1
	Sig. (2-tailed)	.322	.540	.	.098	.474	
	N	1272	1958	1971	1971	583	1971
To Obey	Pearson Correlation	.051	-.055	.	.284	.019	-.004
	Sig. (2-tailed)	.067	.045	.	.000	.743	.890
	N	1265	1313	1323	1323	303	1322

Appendix A: Correlation Matrix

Comparing Discrimination and Termination Policies Between the United States and Germany

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According to studies comparing Human Resource Management (HRM) methods between the United States (U.S.) and Germany, Germany has been shown to have more rigid national regulations as compared to the United States. However, this paper looks to explore and compare certain topics within HRM such as discrimination, termination, and the view of the employee and employer relationship. This paper analyzes the recent employment laws between the United States and Germany. Since the United States is the biggest foreign direct investor in Germany, it is important to look at how the fundamental differences in employment discrimination and termination can impact American and German companies. Through an analysis of these HRM practices, differences in the federal termination and discrimination laws between the United States and Germany were found. However, many similarities in how the laws are implemented within the two countries were also found.

Introduction

The United States and the European Union (EU) are two of the biggest and most influential economies in the world. Each country has played a role in developing the global economy. According to *The World Bank (2016),* the 2014 GDP for the EU was $18.51 trillion (US$) and the United States GDP was $17.42

trillion (US$). Together, the two economies made up nearly 46% of the world GDP in 2014. Within the EU, Germany is seen as a major economic force behind the success of the European Economic Area. During 2014, Germany boasted $3.87 trillion (US$), the highest GDP of all EU countries (World Bank, 2016). Meanwhile, the United States holds the top spot in terms of GDP production by country (World Bank, 2016)

While each country, on its own, has been very influential on the global GDP, the two countries also have some of the largest workforces. Germany, in 2014, recorded the second highest employment rate within the EU (78%), trailing only Sweden (80%) (DeStatis, 2015). The United States, recorded 161,048,950 employable people, being placed third globally behind only India (496,960,163 people employed) and China (806,496,521 people employed) (World Bank, 2014). Germany is also first among the EU countries in terms of number of persons employed. The facts indicate that the United States and Germany have the biggest labor force within their respective areas with the United States being the biggest employer in North America and Germany being the biggest employer in the European Union.

Another aspect that relates the two countries is Foreign Direst Investment (FDI). FDI is the investment made by a country in another country. (United Nations Conference on Trade and Development, n.d.) According to the *Organization for Economic Co-Operation and Development* (OECD), the United States was the biggest non-European country investor within Germany, providing 10% of Germany's total FDI. However, Germany ranks fourth in terms of European countries investing in the United States. Nonetheless, due to Germany's growing FDI in the United States and the United States' massive FDI in Germany, both countries are encountering each other's employment and labor laws more frequently than in the past.

The history of the United States and Germany has created differing views on employment and labor laws and practices. Understanding the differing employment laws and practices between the United States and Germany is vital to extrapolate ideas and concepts that can provide insight about how these two

economic powers facilitate the employment relationship. Each country's unique historical context has had an effect on how today's labor laws and practices have been formed. This paper examines how termination and discrimination law is applied within both countries. By increasing our understanding of these topics, we can gain clearer insight into specific differences between the two country's laws and how they effect employee protection.

Literature Review

Methods

This paper focuses on the specific discrimination and termination policies that govern employment practices within the United States and Germany and how those practices may impact future commerce between these two countries. The reason for the focus on discrimination and termination policy is because these two areas deal most with hiring employees (creating a contract between employer and employee) and terminating employees (terminating contract between employer and employee). One of the most important factors in conducting business anywhere is the ability to hire employees and the ability to fire employees. Discrimination and termination laws are essential for any employer conducting business in a foreign country.

To identify existing research relevant to this paper's topic, several databases were used. Those databases include Google, Google Scholar, World Bank, deStatis (German Gov. Statics database), US Bureau of Labor Statistics, OECD, Europa.eu (European Union official website), Business Source Complete, and Academic Source Complete. The keywords used to identify relevant articles were labor law, employment law, labor and employment law, FDI inflows, FDI outflows, labor force of Germany, labor force of United States, labor reforms in Germany, labor reforms in United States, discrimination, employee protection, civil law, common law, EU law, German Companies in US, and US companies in Germany. These database searches revealed that most research focuses on employment practices within each country with very few articles including a cross-country comparison of termination and discrimination practices.

German Civil Law and American Common Law

German Civil Code and American Common Law both rose out of different schools of thought regarding justice (Washington University in St. Louis School of Law,2014). German employment and labor laws are no doubt different from the United States. The employer and employee relationship is viewed differently in each country. According to Nigel Foster and Satish Sule in the book *German Legal System and Laws (2010),* the German legal system recognizes that the relationship between the employee and the employer is unbalanced. The unbalanced relationship, in the eyes of the German legal system, occurs because the employer has more power than the employee. It is because of this fundamental view that employment and labor law in Germany is focused more on protecting the employee.

On the other hand, according to the *Legal Information Institute*, sponsored by Cornell University Law School, the historical approach American courts have taken in interpreting employment relationships has been through employment-at-will. According to employment-at-will, the presumption is that employment is for an indefinite amount of time meaning that the employment relationship can be terminated at any time by either the employer or the employee. However, individual states are allowed to make provisions that further enhance employee protection as they see fit. For example, in Montana, the state constitution mandates that an employer cannot terminate an employee without a valid reason after a certain preliminary period.

With both countries employing large numbers of employees, it is important to fully understand how these different perspectives of the employment relationship have evolved to today's norms. Because each country's commerce is directly impacted by each country's FDI in the other, we need to analyze the historical context of the laws and practices that govern existing termination and discrimination legal structures. These specific employment practices directly impact how German and American companies hire and retain their employees.

German Civil Law History

The German Civil Code (BGB) was formally established in 1900. Since then, it has been amended many times. The BGB was a solution to the many different and often conflicting customs of various Germanic tribes and territories. Mostly influenced by the Roman *Corpus Juris Civilus* of Emperor Justinian I (Britannica Online, 2015; Washington in St. Louis School of Law, 2014), civil law does not give the judge the ability to act when no statute exists. Judges play more of an investigative role in civil law cases, as opposed to common law judges that act as arbitrators between two parties that present their arguments (The Economist, 2013). The German Constitution (GG) originated in 1949, as a result of the Allied Forces occupation in West Germany. Due to the fragmented nature of the country at the time, the writers of the constitution sought to create a document that would withstand any possible reemergence of fascism and other political parties.

Along with the BGB and the GG, the Equal Treatment Act (AGG) has also influenced Germany's current labor practices. Post 1993, the European Commission (EC) played a big role in developing Germany's current labor laws. One of the goals the EC set was to make sure all member countries met certain discrimination requirements. In 2006, Germany passed the AGG fulfilling all four of the mandates the EC had previously set forth. Today, Germany's labor laws reflect these mandates and guide termination and discrimination employment law. The mandates include the following:

- Council Directive 2000/43/EC implementing the principle of equal treatment between persons irrespective of racial or ethnic origin
- Council Directive 2000/78/EC establishing a general framework for equal treatment in employment and occupation
- Directive 2002/73/EC of the European Parliament and of the Council amending Council Directive 76/207/EC on the implementation of the principle

of equal treatment for men and women as regards access to employment, vocational training and promotion, and working conditions

- and the Council Directive 2004/113/EC implementing the principle of equal treatment between men and women in the access to and supply of goods and services. (German Federal Anti-Discrimination Agency, 2011)

American Common Law History

According to Jay M. Feinman (1976) in a research paper titled: *The Development of the Employment at Will Rule*, he discusses in the following quote how early American law was heavily influenced by English law.

"While English law followed a relatively clear path, American law at the same time exhibited a confusion of principles and rules. Through the middle of the nineteenth century, American courts and lawyers relied heavily on English precedents but often came to different results."

According to *The Robbins Collection (2016)*, common law systems place great weight on court decisions that have the same force of law as statutes. Also, according to *The Robbins Collection (2016),* common law courts have had the authority to make law where no legislative statute exists. This means that every case is either interpreting past cases to support the current one or a new precedent is being established. The role of a common law judge also differs from their civil law counterparts. Judges make the vital decisions on cases that set a precedent for future ones. Due to the fact that there is no codification in American Common Law, thorough records of previous case verdicts must be saved and accessible to lawyers and non-lawyers alike. Having access to this information is important because American lawsuits require citation of previous cases in order to inform the judge on how to rule.. When faced with a termination or discrimination lawsuit, the judge can either set a new precedent to follow or use precedents from previous cases. In the United States, the employment-at-will doctrine and the Civil Rights Act of 1964 mostly govern termination and discrimination issues.

According to the National Conference of State Legislature (NCSL, 2007), a total of 47 states recognize at least one of the three employment-at-will exceptions. These exceptions are public policy, implied contract, and covenant of good faith and fair dealing. The three states that do not recognize these exceptions are Florida, Rhode Island, and Georgia. That means that Florida, Rhode Island, and Georgia have no limitations on employment-at-will doctrine. However, there are 17 states that recognize all three exceptions of the employment-at-will doctrine. Remaining states recognize at least one employment-at-will exception. According to Deborah A. Ballam (1995), the origins of employment-at-will began to take shape in 1895 in response to the assumption that employment was implied for up to a year. In her research, she gives examples from Jay M. Feinman (1976) that lay out multiple cases in which terminated employees sue for the remainder of their salary because of the assumption that the employment agreement was on a yearly basis. Also, according to Ballam, Feinman was the first person to "seriously examine within the historical context within which the rule developed". Feinman concluded that the use of employment-at-will was an effort by the employers to have maximum control for their company by limiting the job security of mid-level managers.

One of the most important laws in U.S. history was the Civil Rights of 1964. This law set the standard for addressing discrimination in employment. The law was passed 8 months after the assassination of President of Kennedy, a strong supporter of the CRA. Along with the new law came the establishment of the Equal Employment and Opportunity Commission (EEOC). Title VII implemented the EEOC as an organization to monitor and provide assistance to persons who believe that they were discriminated against based on their race, color, religion, sex, or national origin. In more recent years, age and disability were also included under Title VII (National Archives, n.d.).

Termination

Termination practices are, ironically, a very important part in the employment process. Termination signals the end of an employment contract. In Germany and the United States,

terminations laws and policies differ. Germany has the BGB, a highly detailed set of codes that covers all aspects of law. Sections 611-630 in the BGB are related to employee termination. The United States has the employment-at-will doctrine. This doctrine is a precedent established   from previous court rulings. These two bodies of law are the basis for the termination practices each country must follow. The three topics that will be analyzed are termination of employment notice, termination based on performance, and termination based on restructuring. These topics were chosen to be analyzed because of the importance these topic have on commerce between these two countries.

Termination of Employment Notice

In Germany, the BGB *section 622 (2-3)* states the following:

> 2) For notice of termination by the employer, the notice period is as follows if the employment relationship in the business or the enterprise
> 1. has lasted for two years, one month to the end of a calendar month,
> 2. has lasted for five years, two months to the end of a calendar month,
> 3. has lasted for eight years, three months to the end of a calendar month,
> 4. has lasted for ten years, four months to the end of a calendar month,
> 5. has lasted for twelve years, five months to the end of a calendar month,
> 6. has lasted for fifteen years, six months to the end of a calendar month,
> 7. has lasted for twenty years, seven months to the end of a calendar month.
> (3) During an agreed probationary period, at most for the duration of six months, the employment relationship may be terminated with a notice period of two weeks.

This section of the BGB outlines the specific period of time required before any German employee can be terminated.

These protections are explicitly stated and intended to inhibit an employer's wrongful termination of an employee. The laws stated are in place to give the employee time to make adjustments and possibly appeal his termination with a labor court or work council.

In the United States, the law is less explicit. While all states are given the option to adopt the "at-will" employment policy, states may also mandate their own termination laws. For example, Montana's state constitution allows a 6 month probationary period during employment. At the end of the probationary period, the employer can only terminate the employee for a job related reason (Montana Department of Labor and Industry, 2016). Although any employer can technically fire an employee immediately for any reason besides an illegal one, the *Society for Human Resource Management* (2015) advises that there are many items to take into consideration before terminating an employee. The first and most important item to look at is the company policy on termination. Another item to consider is the effect that an immediate firing may have on other employees. Unexpected terminations could cause employees to have a negative attitude toward the company. The *Society for Human Resource Management* (2016) suggests that the employer also give two weeks' notice to allow for an easier termination process and avoid possible litigation.

Termination based on performance

According to *The International Law Office* (2010) terminating an employee in Germany based on performance alone is a very difficult proposition. Although lack of performance is technically a breach of contract by the employee, the employer needs to provide additional evidence such as misconduct, ethical violations, or persistent behavioral issues to make it easier for the labor courts to rule in favor of employee termination. The employer must show a that the employee in question is producing work at a rate lower than the average of other employees and that a consultation took place to give the employee a chance to correct their behavior. It is preferred that the consultation be recorded in writing. By giving the employee a consultation about what

specific attitudes to change or goals to meet, the employer can show that the employee either met the goals or fell short. If the employee shows a consistent unwillingness or inability to perform the task, then it becomes easier for a labor court to decide in favor of termination.

The United States employment-at-will policy allows for an employee to be terminated based on lack of performance. Since performance is not an illegal reason to terminate an employee, this is allowable. However, the *Society for Human Resource Management* (2015) argues it is beneficial for the company to not immediately terminate an employee. The reason for this is to minimize the chance of a lawsuit against the company. The *Society for Human Resource Management* (2015) says that it is beneficial for the employer to discuss the lack of performance with the employee. By discussing what needs to be improved, it gives the employee time to respond and a real goal to work toward. For the employer, it allows them to not have the immediate burden of going through the hiring process and they are able to record the meeting for future use.

Termination Based on Restructuring

Companies, for the most part, change and adapt over time. New initiatives are taken, the nature of the company changes, and many other things happen in between. Because of the changes in a company, some job positions may subsequently no longer have a place in the company. Determining what to do with the employees within the redundant jobs can be difficult, depending on where the employee is located.

According to *Abelen,* a German legal firm that specializes in employment and labor law, every employee in Germany is guaranteed protection under the Employment Protection Act (KSchG).

> "Once under protection of the KSchG, the employer may only terminate the employment contract unilaterally if the dismissal is socially just. The employer has to prove that the termination of contract is not unjust. Under the KSchG, there are

only three reasons for which an employment may be terminated:
(1) reasons related to the employee's behavior,
(2) reasons related to the person, or
(3) reasons related to organizational changes that lead to a redundancy."

It is here that we observe, again, that to terminate an employee, the employer must be able to convince a labor court that there is indeed an employee surplus. Also, the employer must be able to prove that there is no other position within the company that the employee may be placed in. Another major hurdle the employer must clear is the consideration of protected classes. Determining which employee takes precedent over another employee is something that is difficult to justify to a labor court.

In the United States, as you may have expected, the process is less tedious. Using employment-at-will, the employer can simply terminate the employee. However, according to the *Harvard Business Review* (2012), terminating an employee due to reorganization is a process. Termination is the last thing an employer does in a long list of events. Keep in mind that the company has to be able to protect itself if there are any lawsuits filed against them. Keeping a record is a priority in the termination process. By keeping a record of the performance and other disciplinary actions, it is more easily justifiable to a court as to why a termination took place. It is also important to show that there are no other positions to place the employee into. Discrimination policies come into play, but for the most part, if there is a valid reason for termination, the court will uphold the termination.

Discrimination

As stated before, discrimination is a very big concern for employers. Germany and the United States employ over 35% and 50% of their populations respectively. (Clifton & Ryan, 2014) With large amounts of diverse people, it is vital to make sure that all people are given the opportunity to work. Knowing who is in a protected class in either country can definitely hurt or help a company.

According to W.D Schenk's *Key Aspects of German Law (2008),* Germany only very recently passed an Anti-Discrimination Act in 2006. Although the concept of non-discrimination has been part of German law since 1949, it only covered sex discrimination. The 2006 Anti-Discrimination law (*Allgemeines Gleichbehandlungsgesetz, AGG)* was passed "to prevent or to stop discrimination on the grounds of race or ethnic origin, gender, religion or belief, disability, age, or sexual orientation. (Section 1 of this Act)" (Federal Anti-Discrimination Agency, 2011). Again, this law was heavily influenced by the EU's four mandates to bring Germany, as well as other EU countries, up to date on laws concerning discrimination. The AGG is no doubt the single most comprehensive law that highlights protected classes in Germany. The AGG is very similar to the American Civil Rights Act of 1964.

The Civil Rights Act of 1964 (CRA) set the ground work for removing and improving discriminatory laws and regulations. The CRA also mirrors many of the guarantees stated in the German AGG. These include non-discrimination based on race, color, national origin, religion, or sex (EEOC, 2016). However, throughout the years, other protections were passed such as age, disability and genetic information (EEOC, 2016).

 Both the AGG and the CRA state that a person cannot be discriminated on the basis of gender, race or ethnic origin, religion or belief, age, or disability. But it is here where the similarities stop. The AGG further states non-discrimination for sexual orientation, something that the CRA fails to state. However, where the U.S. federal government is unclear, the individual states take over. There are 23 states that have some sort of protection of sexual orientation, gender identity, or both (American Civil Liberties Union, 2016). HR companies suggest that you do not discriminate based on gender identity or orientation, but stress that a person's credentials be the main determination for hiring decisions (Society for Human Resource Management, 2015).

Discrimination Based on Race

One of the forms of discrimination that gets a lot of attention is racial discrimination. Racial discrimination can be as explicit as having a sign that states "Whites only" or as seemingly harmless as "Native speaker wanted". This is something that Wiebke Mattern (2016) discusses in an article titled "What protection do employees have against race discrimination in Germany?" She sites a recent court ruling in Germany that shows how racial discrimination may be unintentional. A job advertisement containing the phrase "German as a native speaker" was recently ruled as racially discriminatory based on the fact that a native speaker is typically a person who learns a language in their childhood without any formal education. Another reason why this phrase was ruled discriminatory was due to the fact that being a native speaker of German is not a measure of fluency in the German language.

In the United States there are similar rulings on discrimination cases. The EEOC even has advised companies on what words and phrases to avoid. Phrases such as "seeks females " or "recent college graduates" discourage certain groups of people to apply for a position. (EEOC, n.d.) Although none of the previous phrases were discriminatory based on race, it would be safe to assume that a phrase such as "looking for native German speaker" would also be illegal because a person can speak fluent German and not be a native speaker. Both countries seem to recognize that racial discrimination comes in many forms.

Discrimination Based on Gender Identity

Based on the mandates of the EC, Germany adopted laws banning discrimination based on gender identity and sexual orientation (Anti-Discrimination Agency, 2016). According to Sewell Chan of T*he New York Times* (2016)*,* the Nazi party instituted laws that made homosexuality a crime. Approximately 100,000 men were arrested from 1933-1945. Interestingly, the law did not change when the Allies defeated the Nazis in 1945. From 1949-1969, Germany incarcerated persons who were considered homosexual. West German police arrested roughly 50,000 men for homosexuality. However, after 1969, those

imprisoned for homosexuality were released and as of May of 2016, charges of homosexuality were expunged from their records. The four EC mandates recognize that sexual orientation and gender identity are not suitable reasons to discriminate against hiring and individual.

The United States has no federal law explicitly pertaining to discrimination based on gender identity and sexual orientation, but individual states have passed laws that protect against gender identity and sexual orientation discrimination. These laws are relatively new and must be recognized by any company working within that state. In addition to the state laws, the EEOC pursues cases that show discrimination based on gender identity or sexual orientation. According to the EEOC:

> "EEOC interprets and enforces Title VII's prohibition of sex discrimination as forbidding any employment discrimination based on **gender identity or sexual orientation.** These protections apply regardless of any contrary state or local laws . . . While Title VII of the Civil Rights Act of 1964 does not explicitly include sexual orientation or gender identity in its list of protected bases, the Commission, consistent with Supreme Court case law holding that employment actions motivated by gender stereotyping are unlawful sex discrimination and other court decisions, interprets the statute's sex discrimination provision as prohibiting discrimination against employees on the basis of sexual orientation and gender identity." (EEOC, 2016)

Discussion and Future Research

The paper's original objective was to look at specific discrimination and termination policies and compare the two between the United States and Germany. The paper's original research question was how the historical context of each country affects the country's employment practices. The presumption was that the differing German and American legal systems, which were derived from the historical context of each country, would

be vastly different given the unique pasts of each country. The United States common law and the German civil code have their own perspective on how justice should be handled (Berkeley School of Law, n.d.; Feinman, 1976; Legal Information Institute, n.d.; Washington University in St. Louis School of Law, 2014). Based on the objective and the research question, the differences in each country's termination and discrimination policies were analyzed. It is important to examine these specific two areas of employment and labor law because these policies most directly impact a company's ability to employ and discharge employees.

Termination

In the literature review, termination notice periods, termination based on performance, and termination from organizational restructuring were analyzed. These specific topics are important to the employer and the employee alike. The effects that the topics have are always present in companies around the world. In analyzing the termination laws in both Germany and the United States, the research found more similarities in the implementation process of those termination laws than in the actual national laws themselves. In Germany, the BGB outlines termination notification requirements based on the length of time the employee has been employed with a certain company. These time periods are very much in favor of the employee and allow the employee to either appeal the decision and/or start making preparations to leave the company. The United States, on the other hand, does not have a federal law that mandates a certain termination notice period. However, human resource companies such as the *Society for Human Resource Management* (2015) suggest that companies observe a termination notification period. While Germany notifies an employee of a termination as a fulfillment of law, U.S. companies notify terminated employees as a guard against poor office morale and an effort to allow the employee the ability to start preparing for separation. Both countries mirror the same process, but for different reasons. German companies use preventative measures to meet the expectations set by the courts. American companies, on the other hand, use preventative measures to be able to defend their

company against litigation and exceed the expectations of the court. Through this analysis, a couple of questions arose that warrant further research.

1. Do American companies experience a decrease in productivity while following Germany's intricate civil laws governing termination?
2. Do German companies that operate within the United States adopt the employment-at-will doctrine?

From the analysis of the information, American companies may not experience a decrease in productivity while operating under the BGB. The conclusions from termination policy support the notion that American companies operate similarly to their German counterparts when discussing termination procedure. For this reason, American companies will have the ability to easily adapt to the termination requirements set by the BGB. Similarly, German companies based in the United States may not observe the employment-at-will policy of the United States. The highly organized structure of German companies is influenced heavily by the BGB. Because of this influence, German companies might find that the employment-at-will doctrine too low of a standard to utilize in business. The process of recording meetings with under preforming employees and setting goals for them to improve is a positive benefit to the company. These processes help insure a positive employee outlook and promote a mutual respect between management and employees. Future research can provide insight as to whether these propositions are supported or not.

Discrimination

Discrimination policies are another important part of the employment process. Again, the presumption going into this paper was that the discrimination policies would be different on account of the differing bodies of law that govern each country. However, there is evidence of very similar practices. Germany struggled with racial discrimination as noted by the *United States Holocaust Memorial Museum* (2016). In 1935, the Nazi party instituted a number of anti-Semitic laws. These laws, racist in

nature, restricted Jews in Germany from marrying certain people, mandated that all Jews carry identifying cards, and register and subsequently lose their property and/or business. But, these laws came to an end when the Nazi party was defeated and Germany was divided (United States Holocaust Museum, 2016).

The United States has also had a dark past when it came to racial discrimination. After the American Civil War, Jim Crow laws were enacted in the Southern United States. These laws brandished the slogan "Separate but Equal", and segregated communities based on color and race. In 1964, the CRA was passed. The CRA outlawed discrimination based on race, sex, religion, color, and national origin. In addition to this act, the term Bona Fife Occupational Qualification (BFOQ) was added as an exception. BFOQ allows institutions to legally discriminate when hiring employees (not applicable to color). In practice, it gives churches and other religious institutions the ability to only hire persons that meet their religious requirements, due to the fact that the religion is vital to the mission of the institution. Another example is hiring same sex locker room attendants, stating that being a woman is a requirement because the job requires the person to monitor the women's locker room.

Both countries have had challenging times with discrimination, and both countries strived and succeeded in learning from their past and implementing laws that improve social welfare. Racial discrimination in both countries is currently being tested with the current flow of immigrants from the Middle East into Germany and gender identity/sexual orientation becoming such an important topic in the United States. The discrimination analysis in this paper brought up some questions for future research:

1. How does gender identity effect the BFOQ exception in the United States? How does it apply to German companies coming to the US?
2. Does BFOQ effect the inclusion of sexual orientation in Germany's legal system?

As the analysis shows, BFOQ is a challenging topic that requires more insight. Because BFOQ is strictly an American exception to the CRA, countries like Germany, who are increasing FDI to the United States, need to know how their laws of recognizing gender identity and sexual orientation fit into American BFOQ. Likewise, when American companies invest in Germany, they need a clear understanding of whether BFOQ exceptions would be recognized. As with termination, further research focusing on cross-country data can help enlighten us on the impact of specific discrimination practices and exceptions like the BFOQ on FDI between the U.S. and Germany.

Conclusion

The results of this research showed a definite difference between United States and German discrimination and termination policy on the national level. The United States has federal laws that set the minimum amount of protections that an employee has. However, unlike Germany, each state has the ability to amend laws to increase employee protection. For example, the state of California passed a law that banned discrimination based on gender identity. This is one of only a handful of states that have passed such a law. So far, the United States government has yet to pass such legislation for all states to follow. In Germany, legislation protecting gender identity came from the European Union that mandated Germany meet certain policies. This paper analyzed how laws such as these compare between Germany and the United States and proposed potential future research to explore areas within termination and discrimination law.

References

American Civil Liberties Union. (2016). *Non-Discrimination laws: State by state information.* Retrieved from http https://www.aclu.org/map/non-discrimination-laws-state-state-information-map

Ballam, D. (1995). *The development of the employment at will rule revisited: A challenge to its origins as based in the development of advanced capitalism.* Hofra Labor and Employment Law Journal, 13(1). Retrieved from http://scholarlycommons.law.hofstra.edu/cgi/viewcontent.cgi article=1215&context=hlelj

Berlin Business Center. (n.d.). *Contracts of employment.* Retrieved from http://www.businesslocationcenter.de/en/business-location/labor-market/employment-law-and-collective-contracts-system/concluding-employment-agreements

Bernhardt M., Gaul B., Kurschat R., & Roock B. (2010). *Termination for breach of duty and poor performance.* Retrieved from http://www.internationallawoffice.com/Newsletters/Employment-Benefits/Germany/CMS-Hasche-Sigle/Termination-for-breach-of-duty-and-poor-performance

Britannica Encyclopedia. (2015). *German civil code.* Retrieved from http://www.britannica.com/topic/German-Civil-Code

Chan S. (2016, May11). *Germany says it will rescind convictions for homosexuality.* New York Times. Retrieved from http://www.nytimes.com/2016/05/12/world/europe/germany-says-it-will-rescind-convictions-for-homosexuality.html?_r=0

Cliffton, J., & Ryan, B. (2014). *Only 1.3 billion worldwide employed full-time for employer.* Retrieved from http://www.gallup.com/poll/174791/billion-worldwide-employed-full-time-employer.aspx

Coe, R. (2014). *Labor relations in the u.s. and germany.* American Institute for Contemporary German Studies, Discussion paper. Retrieved from http://www.aicgs.org/issue/labor-relations-in-the-u-s-and-germany-volkswagen-chattanooga/

Constitution.net. (2014). *Constitutional history of Germany.* Retrieved from http://www.constitutionnet.org/country/constitutional-history-germany

European Commission. (2016). *Tackling discrimination.* European Commission on Justice. Retrieved from http://ec.europa.eu/justice/discrimination/index_en.htm

European Management Journal, 19(1). doi:10.1016/S0263-2373(00)00071-2

Federal Anti-Discrimination Agency. (2015). *The directives on equal treatment of the european union. Retrieved from http://www.antidiskriminierungsstelle.de/EN/Home/home_node.html*

Kittner, M., & Kohler, T. (2002). *Conditioning expectations: The protection of the employment bond in german and american law* [Abstract]. Comparative Labor Law & Policy Journal, 21. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=297640

Korner, M. (2005). *German labor law in transition.* German Law Journal, 6(4), 805-816. Retrieved from

http://heinonline.org/HOL/Page?handle=hein.journals/ger
mlajo2005&div=61&g_sent=1&collection=journals

Legal Information Institute. (n.d.). *Employment-at-will.* Retrieved
from https://www.law.cornell.edu/wex/employment-at-
will_doctrine

Montana Department of Labor and Industry (n.d.)

Muller, M., Lundblad, N., Mayrhofer, W., & Soderstrom, M.
(1999). *A comparison of human resource management
pracices in austria, germany and sweden.* German Journal
of Human Resource Management: *Zeitschrift für
Personalforschung*, *13*(1), 67-81. Retrieved from
http://rhverlag.de/Archiv/1_99_Muller.pdf

Pinsent Masons. (2014). *Disclosure procedure in germany.*
Retrieved from
http://www.pinsentmasons.com/ELP/Dismissal%20Proced
ure%20in%20Germany.pdf

Sawang, J., & Staatsexamen, E. (2006). *Termination of
employment litigation digest.* International Labour
Organization. Retrieved from
http://www.ilo.org/dyn/eplex/docs/23/Germany.pdf

Segalla, M., Jacobs-Belschak, G., & Muller, C. (2001). *Cultural
influences on employee termination decisions: Firing the
good, average or the old?* [Abstract], Summers, C. W.
(2000). *Employment at will in the united states: the divine
right of employers*. *U. Pa. J. Lab. & Emp. L.*, *3*, 65.
Retrieved from
http://heinonline.org/HOL/Page?handle=hein.journals/upjl
el3&div=11&g_sent=1&collection=journals

University of California at Berkeley School of Law. (2010).
Common law and civil law traditions. Robbins Religious
and Civil Law Collection. Retrieved from

https://www.law.berkeley.edu/library/robbins/CommonLa
wCivilLawTraditions.html

United States Senate. (2016). *Landmark legislation: the civil
rights act of 1964.* Retrieved from
http://www.senate.gov/artandhistory/history/common/gen
eric/CivilRightsAct1964.htm

United States Equal Employment Opportunity Commission.
(2016). *Title vii of the civil rights act of 1964.* Retrieved
from https://www.eeoc.gov/laws/statutes/titlevii.cfm

United States Holocaust Museum. (2016). Retrieved from
https://www.ushmm.org/wlc/en/article.php?ModuleId=10
007901

Weiss, M. (1989). *Labor Law and Industrial Relations in Europe
1992: A German Perspective.* Comp. Lab. LJ, 11.
Retrieved from
http://heinonline.org/HOL/Page?handle=hein.journals/cllp
j11&div=33&g_sent=1&collection=journals

Wendler, M., Tremmel, B., & Buecker, B.J. (2008). *Key aspects
of german law.* Berlin, Germany: Springer-Verlag Berlin
Heidelberg.

Wilde Beuger Solmecke. (2016). *German law and termination.*
Retrieved from https://www.wbs-law.de/eng/doing-
business-germany/employment-law/german-employment-
law-and-termination/

WilmerHale. (2003). *Features of german and employment law.*
Retrieved from
https://www.wilmerhale.com/pages/publicationsandNews
Detail.aspx?NewsPubId=90463

World Bank. (n.d.) Retrieved from:
http://data.worldbank.org/indicator/SL.TLF.TOTL.IN

Why was the most famous novel written in the 20th century, James Joyce's *Ulysses*, banned by U.S. Customs?
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The scandal of Ulysses: Southern District of New York v. One Book Called "Ulysses" Random House, Inc.

In 1933, in New York City, a court case was brought against James Joyce's *Ulysses* after it was first deemed obscene when published episodically in "The Little Review," and then latter deemed obscene by U.S. Customs. Judge Woolsey's decision in Southern District of New York v. One Book Called "Ulysses" Random House, Inc, lifted the ban on James Joyce's *Ulysses*. This research examines the legal and cultural debate surrounding Judge Woolsey's decision on December 6th, 1933.

June 16th, Bloomsday, is celebrated internationally as the birthday of Irish writer James Joyce's *Ulysses*. On June 16th, 1904 Joyce first went on a date with, his future wife, Nora Barnacle. The importance of the date continued with Joyce so much that he set *Ulysses* to take place on that very same day. It was an ordinary day, but in that Joyce found the extraordinary. "Joyce used prose narrative to capture the jokes, oral traditions and oratory of a people, who might never have committed these to print themselves," and, "As Joyce said, I have put the great talkers of Dublin into my book" (Kiberd 329). The idea of finding such important things in such minute daily activities was the preferred working method of Joyce.

The notion of incredibly detailed representations of normal everyday activities and thoughts can be identified throughout *Ulysses*. One such example can be found at the introduction to Joyce's main character Mr. Leopold Bloom. Such a mundane activity as preparing himself and his wife's breakfast, and giving, "Milk for the pussens," shows the reader that apparent ordinariness characterizes Mr. Bloom (Joyce 55). He, being anything but ordinary, in Joyce's rendition, is later characterized with anything but ordinariness in the Cyclops episode of *Ulysses*.

It is in the critical reception of *Ulysses* that we begin to identify the critical debates about *Ulysses* that would ultimately bring the legal cases brought against it. Even amongst its strongest supporters within literary circles, some concerns are voiced regarding Joyce's use of language and some of the less savory episodes in Bloom's and Stephen Dedalus' adventures. There is ample evidence among literary critics as well as amongst reviewers.

Among Joyce's most important literary supporters was Ezra Pound, one of the most controversial literary figures during the 20th century, and also one of modern poetry's major contributors. He greatly encouraged and supported writers in hope to develop new directions within the arts. Pound was a huge supporter of Joyce, who he described as, "without exception the best of the younger prose writers." He also, "got Joyce printed," and, "at critical moments Pound was able to drum up financial support from such varied sources as the Royal Literary Fund, the Society of Authors, and the New York lawyer John Quinn in order to help Joyce keep writing" ("Ezra Pound.") Knowing that *Ulysses* would be subjected to some sort of suppression he wrote, "I suppose we'll damn well be suppressed if we print the text as it stands. BUT it is damn well worth it. . . . Wall, Mr. Joice, I recon you're a damn fine writer, that's what I recon'. An' I recon' this here work o' yourn is some concarn'd litterchure. You can take it from me, and I'm a jedge" (Birmingham 117).

Thomas Stearns Eliot, or T. S. Eliot, was another very prominent 20th century poet. On *Ulysses* he wrote the review

entitled, "'Ulysses', Order, and Myth," which was published in *The Dial* in November of 1923 ("T. S. Eliot."). Eliot states that:

> Mr. Joyce's book has been out long enough for no more general expression of praise, or expostulation with its detractors, to be necessary; and it has not been out long enough for any attempt at a complete measurement of its place and significance to be possible. All that one can usefully do at this time, and it is a great deal to do, for such a book, is to elucidate any aspect of the book — and the number of aspects is indefinite — which has not yet been fixed. I hold this book to be the most important expression which the present age has found; it is a book to which we are all indebted, and from which none of us can escape….
>
> It is here that Mr. Joyce's parallel use of the Odyssey has a great importance. It has the importance of a scientific discovery. No one else has built a novel upon such a foundation before: it has never before been necessary. I am not begging the question in calling Ulysses a 'novel'; and if you call it an epic it will not matter. If it is not a novel, that is simply because the novel is a form which will no longer serve; it is because the novel, instead of being a form, was simply the expression of an age which had not sufficiently lost all form to feel the need of something stricter. (Eliot)

Eliot's review was all published within *The Dial*.

Irish poet and Nobel Laureate, W. B. Yeats read the episodes as Joyce wrote them, and declared *Ulysses*, "a mad book," but later retracted that statement saying, "I have made a terrible mistake. It is a work perhaps of genius. I now perceive its coherence" (Ellmann 530). Yeats admired Joyce's work, but Joyce rejected his support. Joyce did not want to be associated with Yeats' Irish cultural nationalism.

Katherine Mansfield was a 29 year writer from New Zealand who did not like *Ulysses* at all, "I can't get over the

feeling of wet linoleum and unemptied pails and far worse horrors in the house of his mind" (Birmingham 128).

Even among the less literary reviewers and critics who ultimately come to praise *Ulysses* received mixed reviews. Many considered the book an incredible work of genius, such as Dr. Joseph Collins, a neurologist who writes books about books, who said that, "A few intuitive, sensitive visionaries may understand and comprehend 'Ulysses,' James Joyce's new and mammoth volume, without going through a course of training or instruction, but the average intelligent reader will glean little or nothing from it — even from careful perusal, one might properly say study, of it — save bewilderment and a sense of disgust" (Murphy). Dr. Collins continues his praise by stating:

> Before proceeding with a brief analysis of "Ulysses," and a comment on its construction and content, I wish to characterize it. "Ulysses" is the most important contribution that has been made to fictional literature in the twentieth century. It will immortalize its author with the same certainty that Gargantua and Pantagruel immortalized Rabelais, and "The Brothers Karamazov" Dostoyevsky. It is likely that there is no one writing English today that could parallel Joyce's feat, and it is also likely that few would care to do it if they were capable. (Collins)

Other reviewers, often without having read *Ulysses*, judged the work on the basis of the language that fueled the "scandal" of *Ulysses*: lascivious, salacious, crude, vulgar. The language of the scandal as much or more than the language of the the book brought Ulysses to the attention of The New York Society for the Suppression of Vice (Green and Karolides 522-23). This group often used its considerable clout to oppose or curry favor with for political gain. It was, in part, because of the attention of this group that U.S. customs, among others, took on Ulysses as something of a 'moral crusade.'

In 1933, a court case was filed in the Southern District of New York v. One Book Called "Ulysses" Random House, Inc, against *Ulysses*. The language of the filing of the suit is essential:

> On cross motions for a decree in a libel of confiscation, supplemented by a stipulation - hereinafter described- brought by the United States against the book "Ulysses" by James Joyce, under section 305 of the Tariff Act of 1930, Title 19 United States Code, Section 1305, on the ground that the book is obscene within the meaning of that Section, and, hence, is not importable into the United States, but is subject to seizure, forfeiture and confiscation and destruction. (Joyce ix)

Obscenity has been a common law offense, and many laws against what are considered immoral books were not in place until the 19th century (Birmingham 63). The decision of the court in this case impacted the right to freedom of expression in America. Judge Woolsey took several months to read the book and determined that it wasn't solely, "dirt for dirt's sake" (Joyce xii). He said that:

> I have read "Ulysses" once in its entirety and I have read those passages of which the government particularly complains several times. In fact, for many weeks, my spare time has been devoted to the consideration of the decision which my duty would require me to make in this matter. "Ulysses" is not an easy book to read or to understand. But there has been much written about it, and in order properly to approach the consideration of it it is advisable to read a number of other books which have now become its satellites. The study of "Ulysses" is, therefore, a heavy task. (x)

To deem whether or not the book was obscene, one must define obscene. Judge Woolsey writes, "The meaning of the word "obscene" as legally defined by the courts is: Tending to stir the sex impulses or to lead to sexually impure and lustful thoughts" (xiii). Knowing how highly regarded the book is in the literary

world, Judge Woolsey knew that he would have to carefully read and analyze *Ulysses*, "The reputation of "Ulysses" in the literary world, however, warranted my taking such time as was necessary to enable me to satisfy myself as to the intent with which the book was written, for, of course, in any case where a book is claimed to be obscene it must first be determined, whether the intent with which it was written was what is called, according to the usual phrase, pornographic, that is, written for the purpose of exploiting obscenity." Continuing, he states that, "If the conclusion is that the book is pornographic, that is the end of the inquiry and forfeiture must follow. But in "Ulysses," in spite of its unusual frankness, I do not detect anywhere the leer of the sensualist. I hold, therefore, that it is not pornographic," and, "I am quite aware that owing to some of its scenes "Ulysses" is a rather strong draught to ask some sensitive, though normal, persons to take. But my considered opinion, after long reflection, is that, whilst in many places the effect of "Ulysses" on the reader undoubtedly is somewhat emetic, nowhere does it tend to be an aphrodisiac. "Ulysses" may, therefore, be admitted into the United States" (x-xi, xiv).

Judge Woolsey's decision is said to mark, ". . . A major event in the history of the struggle for free expression" (Joyce vii). While the decision clearly had a great impact on law, but it is also said to have set a precedent for the right to think freely. While this research tracks the immediate effects of the Woolsey decision in law and in a larger society, its more far-reaching effects will be the subject of ongoing research.

Works Cited

Birmingham, Kevin. *The Most Dangerous Book: The Battle for James Joyce's Ulysses*. New
        York: Penguin, 2014. Print.

Collins, Joseph. "James Joyce's Amazing Chronicle." *The New York Times* 28 May 1922, Books
        sec.: n. pag. 9 Jan. 2000. Web. 22 June 2016.

Eliot, T.S. "'Ulysses', Order, and Myth." University of Virginia, n.d. Web. 23 June 2016.

"Ezra Pound." Poetry Foundation. Poetry Foundation, n.d. Web. 23 June 2016.

Green, Jonathon, and Nicholas J. Karolides. *Encyclopedia of Censorship*. Infobase Publishing,
        2014. Print.

Joyce, James. *Ulysses*. New York: Random House, 1946. Print.

Kiberd, Declan. *Inventing Ireland*. Cambridge, MA: Harvard UP, 1996. Print.

Murphy, Mary Jo. "The Rough Read That Was 'Ulysses'." *The New York Times*. The New York
        Times, 16 June 2016. Web. 22 June 2016.

"T. S. Eliot." Poetry Foundation. Poetry Foundation, n.d. Web. 23 June 2016.

Constructing a Theoretical Framework for Effectively Countering ISIS Narratives Aimed at Young Western Muslim Women

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The purpose of this research is to understand the mass communication tactics, recruitment methods, and narratives of ISIS in order to gauge why young Muslim women become susceptible to ISIS. Through an understanding of narrative theory and the way in which Islamic extremists apply such theory, Western governments are improving mass communication efforts as a counter-tactic prevention and rehabilitation program. Such programs available in the Western world help prevent radicalization and lower the number of non-practicing at risk Muslim females from becoming radicalized. This could potentially lower the rate of Western women moving to Daesh (ISIS) territory. Creating alternative narratives routed in moderate understandings of Islam would not only prevent young females from being radicalized but would strengthen acceptance of Muslims in Western societies. Utilizing narrative theory to analyze individual cases involving at risk women joining ISIS or attempting to go abroad to ISIS controlled territory will enable one to better understand the psychological, cultural and religious formation of young women's decision making processes. This research project will assess how the ISIS-narrative on social media is successful in attracting young Muslim women. It will

also propose a methodology for creating a counter narrative that encourages young Muslim women to reject the ISIS propaganda campaign. Given the limitations in legal access to such sensitive information, further exploration regarding ISIS's recruitment methods is recommended alongside the Central Intelligence Agency and the Homeland Security Departments of the United States.

INTRODUCTION

Narrative theory works with an individual's unique expressions exclusively from his/her point of view and in ways, which s/he constructs ideas based on personal beliefs, ideals and engagement. There are infinite variables that make it difficult to decipher how a certain narrative will be woven together. Understanding ways in which individuals construct their ideas and thoughts based on personal beliefs (religious, cultural and psychological) is quite complicated. Individuals themselves decide what thoughts and ideas they will give more meaning based on their human experience and what is most important to them. Narrative theory in general helps to develop an understanding of how and why certain individuals think and act the way that they do. Because narrative theory is in its infancy, there are differing perspectives on its applicability.

UNDERSTANDING NARRATIVE THEORY

Three narrative theories that are most applicable to the narrative of Islamic terrorists are based on the writings of Vladimir Propp, Roland Barthes and Claude Levi-Strauss. There is a wide range of unraveling narratives that allows for an entirely different interpretation of an idea or belief individuals may have because each theorist deduces the narratives in a different way.

Vladimir Propp was a well-known Russian folklorist and scholar who was born in St. Petersburg to a German family. He attended St. Petersburg University from 1913 until 1918 majoring in Russian and German philology, later becoming a German and Russian instructor. His most famous work *the Morphology of the Folktale* worked at breaking down narratives and focusing on the rudimentary parts in order to represent every narrative that an

individual tells. His work was the precursor to narrative theory and theorists interested in narratives such as Claude Levi-Strauss and Roland Barthes. Originally written and published in the Russian language made it difficult to be praised in the Western world. However, in 1958 *the Morphology of the Folktale* was translated and his eight character roles were established. During his career, cinema was booming. This is when Propp became interested in identifying similarities in folk tales through analyzation of character narratives. His character theory influenced later narrative theory because the eight character roles he created were applicable to almost any discipline. Propp's character theory was mainly used in order to understand media and how individuals take on the role of actors, appreciating the abundance of directions that narratives can take.

The first character role is the hero, often being the protagonist of the entire narrative, usually the individual speaking in the first person or identifying as the individual struggling to accomplish or achieve something. In order for the hero character role to be effective he/she can also appear as the victim, thus, making themselves more persuasive and effective. The narrative usually surrounds this individual as he/she is assuming the most important role within the narrative. (Propp, 1997, p. 28)

The second character role is the villain; most always portrayed as the antagonist of the narrative, usually possessing morally bad ideals. These individuals usually are depicted as the obstacle that the hero must overcome through his/her journey. They mirror the goodness of the hero with badness. Some examples of villains that could be categorized in Propp's character narrative theory are J.K Rowling's Voldemort and Batman's Joker. (Propp, 1997, p. 29)

The third character assumes the role of the princess; usually the "object" sought by the hero. This individual may not be present at all times during the narrative but somehow can still be an indispensable part of the narrative in order for the protagonist to achieve his/her goal. (Propp, 1997, p. 144) The princess' father, the fourth important figure within the narrative is another obstacle for the hero having to be persuaded

in order for the hero to collect the princess and move on. This character can seem to be villainous or overprotective, with either way posing difficulty for the hero to bypass. (Propp, 1997, p. 24)

The fifth character is the false hero which appears to act heroically and usually starts off as trying to be the hero but falling into darkness and becoming a faux hero. They usually try to take all of the heroes' credit and outshine the protagonist in the narrative. (Propp, 1997, p. 208)

The helper is the sixth character role that Propp's has created and this is the individual that usually appears throughout the narrative when the hero is having trouble and provides a mode of support to him/her. (Popp, 1997, p. 46)

The seventh character role is the donor, the individual who provides the protagonist character with something that allows him/her to succeed. The donor may also be depicted as the helper as well because both are supporting the hero/ protagonist in the quest. (Propp, 1997, p. 89)

Lastly, the eighth character role is the dispatcher, who is the person who sends the hero on the quest meaning that this character could be easily interchangeable with the princess or the father who proposes a task in order to see if the hero is capable of completing such task alone. (Popp, 1997, p. 30)

Claude Levi- Strauss, a Belgium anthropologist and linguist from Brussels was born to French Jewish parents and lived during the First World. Strauss was born in Belgium on November 28 of 1908 and passed away on October 30, 2009. After teaching secondary school in France, he decided to go alongside his wife to São Paulo, Brazil to teach as a visiting professor of sociology. There he took up ethnographic fieldwork in Mato Grosso do Sul and the Amazon rainforest. He later attended the University of Paris, graduated in 1948, and went on to hold the chair of Social Anthropology at the College of France from 1959 – 1982. Although he was known best as being the "father of modern anthropology", he also played a major role in the concept of narrative theory.

Strauss believed that all narrative could be scaled down to binary opposites meaning that two related concepts that have the

opposite meaning could be linked together within any narrative. Common and simple examples of binary opposites are the following: weak vs. strong and good vs. evil. There is usually a conflict or disagreement between two parties or terms. An example within Islamic terrorist narratives is the idea of Muslims vs. kaffir[1]. He argued that by identifying the binary opposites within narratives, the structure and thoughts behind the narrative are emphasized and establish meaning to the actual story being told. Individuals reflect the values, beliefs and myths of a certain culture through the telling of personal narrative. (Levi-Strauss, 1955, p. 436)

Another important individual contributing to narrative theory and was Roland Barthes, a French literary theorist and philosopher. Born on November 12, 1915 in Paris France, he attended Sorbonne and earned his degree in classical letters. He later studied at the University of Paris earning a master's degree in 1941. Although Barthes was not able to work at large institutions, that did not stop him from continuing his interest in structuralism and the structural analysis of narratives leading him to his narrative theory expressed as five different codes. Barthes argued that narratives are reversible and that no narrative has a beginning, they all simply have several access points. Comparing the narrative to tangled threads, the individual can deduce different understandings depending on which string s/he decides to pull.

Barthes Hermeneutic code (HER) is essentially the voice of truth for the individual's narrative. HER contains all of the facts or tells the truth in the eyes of the person telling the narrative. This depends on the individual telling the narrative because s/he is expressing understanding through already filtered cultural, psychological and religious beliefs. (Barthes, 1986, p. 59)

The enigma / proairetic code (ACT) is the empirical voice, essentially, where the problems arise and where the narrative can take any direction depending on the individual telling or experiencing the narrative. (Barthes, 1986, p. 139)

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[1] Kaffir: Unbeliever, disbeliever. (Information retrieved from en.bab.la)

The Semantic code (SEM) is the part of the narrative that can have more than one meaning and more than one way of being interpreted which could often suggest the story go in a different direction, SEM works to counter the narrative, and is often used in narrative therapy. Connotations can be deduced from this code, often introducing an underlying meaning that is somewhat influenced by culture and has symbolism to the person telling the narrative. (Barthes, 1986, p. 94)

The symbolic code (SYM) is essentially the voice of the symbols of the individual and is where all of the meanings are categorized and organized where understanding arises from the conflicting ideals and where change can be made. (Barthes, 1986, p. 152)

The cultural code (REF) is the voice of science and is where the cultural, psychological and religious identity and beliefs the individual possesses enables her/him to understand why her/his narrative was told and experienced in the way that it was. (Barthes, 1986, p. 113)

These theorists created narrative theories that can help to analyze how young Western Muslim women become susceptible to terrorist narratives. A blend of the three narratives will best define the ways in which females are attracted to the Islamic State. Identifying the cultural, psychological and religious identity of the individual who is telling the narrative will help to deconstruct the reasons for why they were persuaded. This can make it easier to take a different spin on the narrative, creating counter-narratives to help produce a counter-tactic prevention and rehabilitation program in the United States.

Islamic Terrorist Narratives

Description of much of the research on Islamic terrorist narratives identifies facts and data without placing the data in a theoretical framework. This limits the analysis needed for constructing creative and effective counter-terrorist narratives. Preventing young Muslim women from being attracted to ISIS narratives is the goal. Islamic terrorist organizations utilize narratives in order to recruit vulnerable young Muslim women from abroad, persuading women to join through a narrative of

victimhood and by persuading them with the victory that they will accomplish as soldiers through religious jihad.

Previous research points to several different methods and reasons for radicalization of women; however, the most prominent methods of recruitment established are built on the concept of individual Da'wah. This term is often used to describe how Muslims share their faith with others, in order to teach those individuals more about Islam. Da'wah allows the recruiters to focus on potential jihadists, instilling in such individuals an extreme understanding of Islam. Recruiters then assess whether their recruits have completely accepted the views that the jihadists have taught them. (Warius, Fishman, 2009, p. 2) Da'wah is a way to convey the narrative the Islamic State builds on by creating bonds to gain sympathy from Muslims abroad. Da'wah can be performed in most all atmospheres, online, at mosques and on the street. The Islamic State usually begins Da'wah by approaching individuals who seem isolated from society and works to form a bond through friendship. Women are commonly lured in by gifts of chocolate, prayer mats and hijabs that they feel are sincere gifts from Muslim friends that they made online. (Callimachi, 2015) After the recruiter has gained the woman's trust, s/he essentially acts as a catalyst for the rest of the radicalization process.

Islamic terrorist organizations, most notably the Islamic State, utilizes girl-to-girl recruitment strategies, developing relationships with other naïve females. This presents a successful way of recruiting jihadis. Most of the radicalization takes place online through everyday social media websites such as Twitter, Facebook and applications that allow individuals to communicate worldwide such as Skype. Umm Ubaydah, a Northern-European who is believed to be in her early twenties took to Twitter to publicize her Islam-related comments such as, "But to be honest, Wallahi there is so much khayr being here and being a mujahid's wife, I wish I could describe the feeling, it's beautiful." Comments made by Umm Ubaydah along with other female recruiters create narratives that attract young females to the life of ISIS brides and encourages them to seek a life abroad. (Zavadski, 2014) Young women become infatuated with the idea of

becoming a jihadi wife, independent from their Western lives and living in the land that all the other radicalized women call home.

Women accessing the internet everyday are subjected to overwhelming amounts of online propaganda. Propaganda also plays an essential role in motivating individuals, most commonly those who use cellular applications such as Instagram to follow, like and share captions and images that ISIS recruiters use to spread what is known as "messages of empowerment." Muslim women in particular are prone to Islamic memes. Muslim memes are a form of narrative that is used online by the Islamic state to persuade Muslim women to think in a certain way. Such memes run along the lines of "wouldn't you rather eat a covered pure lollipop rather than one that has fallen to the floor and is swarmed by flies," created with the intention of going viral among the Muslim community of ISIS. Young Western Muslim women often have no consciousness of what they are being exposed to and liking online. Too often young women are influenced by mass media and are unknowingly conditioned to find attractive the idea of courageous Islamic fighters. Unknowingly they are buying into the narrative of becoming "true to the faith" by rejecting the Western ideals that they have grown up accepting. Most of the propaganda that can be found utilizing apps such as Instagram borrow from Western popular culture to create catchy narratives that will be easy to remember and spread, manipulating a widely recognizable L'Oréal makeup ad as an example. Instead of the traditional "easy, breezy, beautiful, cover girl," slogan, ISIS transformed the "cover girl" into "Covered girl, because I'm worth it," posting the catchy phrase next to an image of a female in a hijab. (Bennhold, 2015, p.2)

Females tend to migrate in a group, as illustrated by the three female teenagers from Bethnal Green Academy in London: Khadiza Sultana, Amira Abase and Shamima Begum. These girls joined ISIS after one of their friends Sharmeena Begum left for Syria months before. They also inspired three more teenage girls to make the trip to Syria but before doing so their passports were confiscated by police and they were consequently put under investigation. (Bennhold, 2015; Wakefield, 2015) These young

Western Muslim women felt that in order to belong to the ummah[2] (the whole community of Muslims) they had to move to ISIS territory and live under what they believed to be pristine Islamic rule. They acted most likely with the thought of experiencing utopianism and belonging in their mind, hoping to achieve this ideal by making hijra.[3] Muslim women in general become persuaded to join by feeling that the Ummah (Islamic community) is being attacked. They state via social media their feeling of needing to become part of the movement, creating within their minds a narrative and reasoning as to why joining ISIS is something that they must do. They see the way other Muslims are being treated and construct narratives that complement and justify recruitment to an extremist organization. For example Palestinians who are forced to be under the rule of Israel, are constantly targeted by the Israeli military. This narrative emphasizes Israel's support from foreign Western allies such as the United States and England. The pro-ISIS narrative made by women further inspires violent action to be taken against the non-believers, feeling a duty to retaliate for the sake of Allah. (Bradford, Frenett, Hoyle, 32)

Teenage Muslim females are just like other teenage girls. Easily persuaded by individuals they feel a connection to makes it much easier to create a persuasive narrative that favors the Islamic State. All individuals are capable of falling in love and Muslims feel a strong connection to other Muslims through the bond that they form within themselves and Allah. The only difference is that the intentions are to instill within the girls radicalized interpretations of the Qur'an. They are accomplishing this in a modern fashion, taking to social media such as Twitter to spread their messages. (Wakefield 2015) Justification for female recruitment has been dubbed *jihadi girl-power,* making themselves feel as if they are in part the hero of the caliphate. (Bennhold, 2015) The idea of leaving home and joining to fight in

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[2] Ummah: The whole community of Muslims bound together by ties of religion. Nation. (Information retrieved from en.bab.la)
[3] Hijra: immigration. (Information retrieved from en.bab.la)

the name of Allah produces a narrative of liberation and at the same time one of a quest in many of these women's lives.

Another key factor for women to join ISIS is sisterhood. They leave all of their friends and family behind when they travel into ISIS territory, searching for the meaning of God and bonding with other women who have come to do the same. Women usually feel a sense of excitement when learning more about the new language, Arabic, while learning alongside women who are equally excited. (Bradford, Frenett, Hoyle, 2015) The Islamic State then streams images on Instagram, Facebook and Twitter promoting sisterhood in ISIS in order to deepen the commitment of these young women. Young women receive the information, begin to believe the ISIS narrative and register it as positive. The ISIS narrative, at this point, increases the level of propaganda about how well jihadi brides are treated. At this stage of the propaganda process they look for ways to become part of that ummah. This thought process that has created a pro-ISIS narrative are ways in which the Islamic State gains access to susceptible Western women and ultimately gains recruits. The example below visualize the types of images that can be found on the World Wide Web. (Accessible to the public)

Figure 1. True Sisterhood (Spada, 2015).

There are many young Western Muslim females who are very intellectually gifted and therefore feel that her talents can be used to benefit all Muslims if they are to move to ISIS territory. Narratives created by the Islamic State that target women also work with the idea that there is much for a female to do in ISIS that does not require becoming a martyr but will highlight their talents. Most women who flee their homelands and who are working for the ISIS movement in Raqqa are intellectually capable of running the Islamic extremist movement from war-torn Syria. Most possess college degrees and a large majority have been educated in the West. (Wakefield, M, 2015, p. 1) Women who choose to leave their homelands and travel to ISIS territory find themselves filling in the occupation of being in charge of all the female issues behind the organization. A young German woman of Iraqi descent was put in charge of all women's issues within the Islamic caliphate by her husband, Abu Bakr al-Baghdadi, the head of the Islamic State. (Bennhold, 2015) Additionally, Western women work mostly as online recruiters for ISIS presenting an extreme interpretation of Islam. The Islamic State creates a vision that is appealing to Muslims abroad that calls for rejection of Western ideals and lifestyles that are haram.[4]

Women become associated with the Islamic State and decide to migrate to ISIS controlled territories because they are embracing a new vision for a society which is returning to the true teachings of the Quran. They are trying to leave behind lives in which they feel that Western assimilated Muslims are rejecting the true understanding of Islam. They are taught that modifications to society by the non-believers is weakening their religious values. Jihadi brides are trying to build an Islamic State that lives and abides by an extreme understanding of the law of Allah. Their end goal is to build a caliphate in which everything is based on the law of God. Women hope to contribute to the ISIS ideology by moving abroad and raising their children under

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[4] Haram: Sin, unlawful, taboo, forbidden. (Information retrieved from en.bab.la)

extreme Islamic teachings, free from diverse cultures or other
world religions.

**Cultural and Psychological Processes for at Risk Women
Influenced by Propaganda**

      Culture has some influence over all individuals and
impacts who they are and who they may become in life.
Assimilation, diffusion and multiculturalism often have an impact
on a way an individual shapes her/his values and ideals
throughout their lifetime. Most young Western Muslim women
have some ties to Middle Eastern society whether it is through
family relationships or simply through Islam that influences much
of the Arab culture and language. These females may have
assimilated into the Western culture and everyday life at some
point, however, they may now reject Western culture which may
have happened when they began to create a narrative and began
rebelling against the West and kaffir that they live among.
Radicalized Muslim women who made hijra and are now living
within war-torn Syria have spoken about how modesty means a
great deal to them and to Allah SWT [5]. Some of the reasons that
they reject the West is because of women devaluing themselves
by being immodest in a liberal society. An example of such
attitude toward modesty is illustrated by [6] ام عبيدة in a tweet written
on January 14 of 2014 at 9:44 am, "SubhanaAllah these women
have gathered in my house and are trying to convince me to get
rid of my niqab[7]." Muslim women judge situations through
religious beliefs that they have been raised with and therefore it is
harder for them to assimilate into foreign cultures with different
customs. Umm Ubaydah reflects such frustration through her
tweet that was written on February 25 of 2014 at 7:17 am,
"…And I'm labeled as an extremist in my own house." Such
feelings not only resonate with women abroad in Syria but also

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[5] When writing the name of God (Allah), Muslims often follow it with the
abbreviation "SWT." These letters stand for the Arabic words "Subhanahu
Wa Ta'ala," or "Glory to Him, the Exalted."
[6] Umm Ubaydah: Young Western radicalized Muslim female believed to be
from Northern Europe. Most popular recruiter of females for ISIS.
[7] Niqab: Facial covering / veil. (Information retrieved from en.bab.la)

others in the West who are contemplating leaving to live in the Islamic State.

Religious Narratives Targeting at Risk Women

ISIS constructs religious narratives through the manipulation of propaganda that they release on the internet. Such propaganda is released in the form of images influenced by popular Western culture and also through videos that call out to all Muslims to take on their religious duty. Propaganda that targets the younger public becomes very important in their quest to recruit more members and the material that they use strengthens skeptic's beliefs. The use of Westernized publications further persuades those Muslims in the West who are not completely persuaded into joining the organization. The following constitutes an example of actual material circling the web that targets individuals using social media.

Figure 2. This is our call of duty (Hall, 2014).

Individual cases such as the case of an American Sunday school teacher who went by the pseudonym Alex has successfully created narratives that were effective in persuading women who were not initially Muslims. In the case of the Sunday school teacher Alex, she found her way to chatting with present Islamic State recruiters through online social media, specifically instant

messaging through Twitter and Skyping for six consecutive months. Interested in seeing how some Muslims justified the death of James Foley, she was unknowingly lured by polite but sophisticated individuals from the caliphate. The individuals who communicated with her were following a manual written by Al Qaeda titled *A Course in the Art of Recruiting.* This manual promotes speaking to potential recruits on a regular basis, starting with religious rituals instilling in the victims the core pillars of Islam and staying clear of jihad. Recruiters send money, gifts, prayer mats and hijabs to women to gain their trust and persuade them to do as they are told. A key strategy that they use to successfully radicalize individuals in the Western Hemisphere is to look for individuals who are isolated from society and who have the most potential of being influenced, as happened in Alex's case. These types of narratives and steps are successful in even engaging those who are not Muslims by can slowly but effectively change their way of thinking.

Creating an Alternate Narrative

The Islamic State is highly sophisticated and successfully assuming state-like powers. This is particularly worrisome because the United States along with other world powers is moving too slowly to stop its state-building and does not understand how modernized this organization has actually become. Women are coming from foreign countries buying into the narratives that ISIS creates with a sense of security that ISIS is going to protect them during hijra (migration). The idea that ISIS is acquiring legitimate state-like powers is being reinforced with the overwhelming numbers of women traveling with children under the age of five and not traveling alone. Females feel protected by the Islamic State who actually send lawyers on their behalf to remove women from detainment under the Turkish military officials, which is worrisome. The rising number of migrants grants legitimacy to ISIS and allows the organization to assume state-like powers that actual states such as Turkey recognize, allowing ISIS to cooperate with them. ISIS is already working as a state-like entity which is their ultimate goal, essentially trying to create in the Middle East a caliphate ruled

under their interpretations of the values of Islam, and under
Sharia law. (Bradford, Frenett, Hoyle, 19-21)

The United States and other world powers do have
intervention opportunities that could deter ISIS's recruitment
methods. Stories such as daily life under the Islamic State as a
foreigner also have some natural negative impacts as well.
Women needing health services urgently and not getting
treatment due to the lack of foreign language proficiency can be a
reason which may deter women from migrating. A lack of
communication is a weakness that world powers can play to their
advantage. The United States can effectively counter Islamic
State tactics by utilizing online propaganda to further feature ISIS
under negative lighting, describing the realistic troubles that occur
under the Islamic State coming directly from women who actually
lived under ISIS rule. The online propaganda method is at the
disposal of anyone willing to utilize it and just as the Islamic State
has manipulated media, world powers are fully capable of doing
the same such as that that the *Quilliam Foundation* and
Verbalisation have done in England. (See Appendix A for more
information).

Conclusion

Narrative theory works with an individual's unique
expressions exclusively from her/his point of view and in ways,
which s/he constructs ideas based on personal beliefs, ideals and
engagement. There are infinite variables that make it difficult to
decipher how a certain narrative will be woven together.
Understanding reasons why young Muslim join the Islamic State
and construct their ideas and thoughts based on personal beliefs
(religious, cultural and psychological) is complicated in the sense
that jihadi's came to engage in ISIS related activity for different
reasons and became persuaded by different narrative strategies.
Individuals themselves decide what thoughts and ideas they will
assign more meaning to based on their life experience and what is
most important to them. However, narrative theory helps to
develop an understanding of how and why certain individuals
think and act the way that they do. Narrative theory continues to
be developed and is beginning to have empirical research to

illustrate its strengths and weaknesses. ISIS in recruiting young western Muslim women can be won with the creation of effective counter-narratives by Western governments. With this in mind, Western governments must continue to strengthen research, development of and commitment to increasing the effectiveness of counter-narratives.

References

Barsalou, J. (2002). Islamic extremists, how do they mobilize support? *United States Institute of Peace*. *89*. 1-8. Retrieved from Academic Search Complete via http://web.ebscohost.com

Barthes, R. (1986). The rustle of language. *Hill and Wang, New York. 2*. Retrieved from http://www.googleschoar.com

Barthes, R., & Duisit, L. (1975). An introduction to the structural analysis of narrative. *The Johns Hopkins University Press. 26*(2), pp. 237-272. Retrieved from http://www.googlescholar.com

Bennhold, K. (August 17, 2015). Jihad and girl power: How ISIS lured 3 London girls. *The New York Times*. 1-19. Retrieved from Academic Search Complete via http://web.ebscohost.com

Bradford, A., Frenett, R., Hoyle, C. (2015). Becoming Mulan? Female western migrants to ISIS.   *Institute for Strategic Dialogue*. 8-39. Retrieved from Academic Search Complete via http://web.ebscohost.com

Callimachi, R., Freytas-Tamura, K., Ali Manik, J. ISIS and the lonely young American. *The New York Times*. (2015) 1-9. Retrieved from Academic Search Complete via http://web.ebscohost.com

Cunningham, K. J. (2003). Cross-Regional trends in female terrorism. *Studies in Conflict & Terrorism*, *26*(3), 171–195. Retrieved from http://doi.org/10.1080/10576100390211419

Dickey, C., Moreau, R., Yousafzai, S., Johnson, S., Peraino, K., Chen, J., Hastings, M. Women of Al Qaeda. *Newsweek*, (2005). *46*(24). Retrieved from Academic Search Complete via http://web.ebscohost.com

Easton, N. (2015). How ISIS is recruiting women and turning them into brutal enforcers. *Fortune.Com*. Retrieved from Academic Search Complete via http://web.ebscohost.com

E-International Relations (2015). Young women, fandom, ISIS. Retrieved from Academic Search Complete via http://web.ebscohost.com

Fishman, B., & Warius, A. (2009). A jihadist's course in the art of recruitment. *Combating   Terrorism Center at West Point,* 1-5. Retrieved from Academic Search Complete via http://web.ebscohost.com

González, A. L., Freilich, J. D., & Chermak, S. M. (2014). How women engage homegrown terrorism. *Feminist Criminology*, *9*(4), 344–366. Retrieved from Academic Search Complete via http://web.ebscohost.com

Gras, V. (1981). Myth and the reconciliation of opposites: Jung and Levi-Strauss. *University of Pennsylvania Press. 42*(3) Retrieved from Academic Search Complete via http://web.ebscohost.com

Hornak, L. (2015). Western women who join ISIS can't fight, but they sure can tweet. *PRI'S The World, Literature Resource Center. Public Radio International, Inc.* 1-3. Retrieved from Academic Search Complete via http://web.ebscohost.com Levi-Strauss, C. (1955). The Structural Study of Myth. *Journal of American Folklore. 68*(270). Retrieved from Academic Search Complete via http://web.ebscohost.com

Moaveni, A. (2015, November 22). For ISIS women, fraught choices. *New York Times.* P. 1.   Retrieved from Academic Search Complete via http://web.ebscohost.com

Monica Crowley. (2014). Men seeking women: Must love jihad militants recruit females as "baby factories" for future terrorists.

Washington Times (DC), 26. Retrieved from Academic Search Complete via http://web.ebscohost.com

Nicola, S. (2014), Female fighters: ISIS fears us more than men. *Sunday Times, The,* 21. Retrieved from Academic Search Complete via http://web.ebscohost.com

O'Rourke, L. A. (2009). What's special about female suicide terrorism? *Security Studies*, *18*(4), 681–718. Retrieved from Academic Search Complete via http://doi.org/10.1080/09636410903369084

Propp, V. (1997). Theory and history of folklore. *Theory and History of Literature, University of Minnesota Press, Minneapolis. 5* Retrieved from Academic Search Complete via googlescholar.com

Rafiq, H., & Russell J. (2016). Countering Islamist extremist narratives: A strategic briefing.   *Quillian,* 978-1-906603-22-9.Retrieved from Academic Search Complete via https://www.quilliamfoundation.org/wp/wp-content/uploads/publications/free/countering-islamist-extremist-narratives.pdf

Spada, A. (2015). Girls seek sisterhood, not just marriage in ISIS. *WordPress.* Retrieved from http://www.islamedianalysis.info/girls-seek-sisterhood-not-just-marriage-in-isis/

Speckhard, A. (2015). Brides of ISIS. *Usa Today Magazine, 144*(2844), 18. Retrieved from Academic Search Complete via http://web.ebscohost.com

Tessler, M., & Robbins, M. D. H. (2007). What leads some ordinary Arab men and women to   approve of terrorist acts against the United States? *The Journal of Conflict*

Resolution, *51*(2), 305–328. Retrieved from Academic Search
Complete via   http://blume.stmarytx.edu:2146/stable/27638550

Wakefield, M. (2015). Why do bright school-girls run away to
Syria? *Spectator, 327(*9731), 24. Retrieved from Academic
Search Complete via http://web.ebscohost.com

Zavadski, K. (2014). Meet the recruiters of ISIS. *New York
mag.com.* 1-15. Retrieved from Academic Search Complete via
http://web.ebscohost.com

Appendix A

Countering Islamist Extremist Narratives

An individual case study that was observed whilst research was being conducted upon counter-extremist narratives was that of the Quilliam foundation, the world's first counter-extremism think tank established in England alongside *verbalisation*, a communication consultancy that works with science and creativity to create ideas that change people's way of perceiving and thinking.

Through collaboration, both foundations created a campaign in order to combat popular ISIS propaganda that targets Muslims in the Western world by using similar techniques and sophisticated video editing to create an alternate story to what ISIS sends out to worldwide accessible media outlets. The campaign that includes a short video of a minute and forty two seconds and the hashtag #NotAnotherBrother has spread over the internet with 5,000 quality views with viewers from approximately 192 different countries and 1,000 of those views coming from Tunisia, Saudi Arabia and Syria. This campaign has been successful with about 10 percent of the key Twitter accounts engaging in the hashtag.

The video can be seen at the following url: *notanotherbrother.org* and further information on the case study can be retrieved from the *Countering Islamist Extremist Narratives: a Strategic Briefing* by Jonathan Russell and Haras Rafiq.

Reference: Rafiq, H., & Russell J. (2016). Countering Islamist extremist narratives: A strategic briefing. *Quillian,* 978-1-906603-22-9.

The Development of Socio-Sexual Behavior in Captive Beluga Whales (*Delphinapterus leucas*) During the First Year of Life

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Many marine mammals, like belugas (Delphinapterus leucas), demonstrate high rates of non-conceptive sexual behavior as immature calves. These socio-sexual behaviors appear to strengthen alliances between small groups and provide practice for adult reproductive encounters. As one of the least studied topics in marine mammal behavior, the purpose of the current study was to examine the development of socio-sexual behavior in seven captive beluga calves from birth to 12 months of age. Using archived video footage collected 4 times a month for 15 minutes per calf (N =5,040 minutes), the results indicated that socio-sexual behavior developed differently across individual calves. Almost all calves displayed some element of socio-sexual behavior during the first three months of life, but most calves engaged socio-sexual behaviors more often as they matured. Some sex differences appeared in the types of behaviors exhibited by the calves. Same-sex preferences were observed regarding partners of the initiating beluga calf although some mixed sex interactions did occur. The emergence of socio-sexual behavior may have been suppressed due to health issues, social groupings, and access to other calves in this sample. Also, belugas appear to be slower maturing than delphinids, which suggests that research on socio-sexual behavior should be examined beyond the first

year of life and into sexual maturity between 6 and 10 years of
age for belugas.

Purpose and Types of Play Behavior

Play includes an enigmatic set of behaviors that remain
elusive in definition and function.   Early definitions of play
considered play to act as a mundane activity without advanced
abilities and as a release for excess metabolic energy (Baldwin,
1902; Burghart, 1999; Darwin, 1874; Spencer, 1872; Romanes
1892). Recent research defines play as a set of spontaneous
behaviors that occur in a low stress setting where a healthy
subject repeatedly engages in non-functional behavior that will
ultimately be used in adult behaviors and may be an indicator of
welfare (Bateson, 2014; Burghardt, 2014; Held & Spinka, 2011).
Play often indicates the absence of "fitness threats" or dangers in
the animal's vicinity; second, it is hypothesized that pleasurable
emotional experiences exist when the animal socializes with its
fellow animals, humans, and with objects. Play is proposed to
produce immediate psychological benefits and long-term fitness
and health benefits, which ultimately improves current and future
welfare. Play may help improve long-term fitness because it
allows animals to practice essential behaviors in safe and
controlled environments (Burghardt, 2014; Held & Spinka, 2011).

Play, as conceptualized by Burghardt (2014) and Bateson
(2014) a process that becomes progressively more complex as
individuals age. Proposed as a three-tiered hierarchical process,
the primary level of play is used to stimulate or release excess
energy, the secondary process of play behavior is intended to
preserve mental physiological abilities, and the tertiary process of
play is thought to reorganized the behavioral system through the
creation of novel and creative behaviors, which transforms
physical play to mental play (Bateson, 2014; Burghardt, 2014).

Play has also three distinctive categories that are
recognized by most play researchers (e.g Bateson, 2014 and
Burghardt, 2014). The first category is locomotor behavior where
the animal manipulates its body to perform different physical
activities often in exaggerated and incomplete positions. The

second category includes object play in which the animals manipulate various objects that are natural parts of their environment or provided by humans in the form of environmental enrichment devices (EEDs or toys). The last category includes social play, in which the subject interacts with another animal and the two partners engage in different activities that may be used later on once they reach maturity. During social play, activities include chases, socio-sexual interactions, mutual games, cooperative manipulation of objects, and play fighting. Socio-sexual behavior in animals may be considered as a form of social play and perhaps reflects the tertiary process of play in which physical forms of play become more complex and variable. In general, immature animals explore their environment through locomotor play, object play, and social interactions when separated from their mothers (Gibson & Mann, 2008; Kuczaj, Makecha, Trone, Paulos, & Ramos, 2006).

Cetacean Development

Behavioral development of both wild and captive cetaceans has not been explored often, particularly in belugas. However, what has been observed has indicated that behavioral development in calves is similar across both settings (Hill et al., 2007; Hill, 2009; Krasnova et al., 2008; Mann & Smuts, 1999). Socially complex species such as belugas and bottlenose dolphins (*Tursiops* sp.) have prolonged nursing periods (about three to eight years) and extended juvenile periods which likely enable the immature cetaceans to acquire the skills necessary to survive in their particular social and ecological conditions while still having the protection of their mothers (Gibson & Mann, 2008).

Much of the pre-weaning period consists of mother-calf pair swims (Gibson & Mann, 2008; Hill, 2009; Krasnova, Bel'kovich & Chernetskii, 2009;). As belugas and dolphins age, mother-calf pair swims decrease until the calves reach sexual maturity and full independence (Mann & Smuts, 1999; Qunicy & Gibson, 2008; Hill et al., 2013). Decreasing the time spent in mother-calf swims promotes the development of precocious motor skills that likely enable the development of social bonds

with other conspecifics (Krasnova et al., 2009; Quincy & Gibson, 2008).

During separations from their mothers, calves are usually in independent swims practicing various motor skills (e.g., breaching, water spit, or lateral swim). Early social interactions outside of the mother-calf pair can include care-based interactions with another female while the calf's mother is unavailable, such as when she feeds or rests from the constant pair swim. This allocare, allomaternal, or "babysitting" occurs when any animal that is not the primary caregiver (e.g, mother of the calf) cares for the neonate during the absence of the mother (Cockcroft & Sauer, 1990; Krasnova et al., 2006, 2009; Greene et al., 2011; Hill & Campbell, 2014). Mother-calf pairs often have a preferred allo-care partner that is usually related to the mother (e.g., aunts, grandmother) or an older sibling (Once calves age from two weeks to four weeks, more social interactions occur. Many of these initial social interactions are with conspecifics from a similar age group (Mann & Smuts, 1999; Qunicy & Gibson, 2008; Greene et al., 2011; Hill et al., 2013)

Behavioral sex differences in juvenile behavior likely foreshadow adult behavior and reflect the social organization of marine mammals (Mann, 2006). Unlike other species with slow development, belugas and dolphins remain in their natal group during the juvenile period, bottlenose dolphins and belugas are marked by reduced associations with their mothers after weaning, but they do develop and maintain long term bonds with a fluid fission-fusion social system (Conner et al., 2000). Few studies have shown sex differences during the pre-weaning stage (Quincy & Gibson, 2008).

Learning to Socialize as Cetaceans

Both in the wild and in captivity, belugas learn social skills by interacting with one another. In some species (e.g., bottlenose dolphins), social development occurs within a sexually-segregated society, reflecting the different reproductive strategies of the pod (Conner et al., 2000, 2006; Quincy & Gibson, 2008). Similarly, in the wild artic White Sea most of the social skills are learned during a sexual aggregation where

belugas convene twice a year for mating and socializing opportunities (Krasnova et al., 2008). The majority of the year socially-segregated groups are reported with pods of females and calves separate from the adult males, belugas learn their first set of behavioral skills from sexual aggregations, form individual and social relationships with other members of that pod, and obtain hierarchical status (Galbicky, DuBrava, Noonan, 2010; Krasnova et al., 2008). In human care, however, beluga calves have opportunities to socially interact beyond the bi-annual aggregations of wild belugas.

Socio-sexual Interactions

Socio-sexual behavior has been studied as an indicator of courtship, reproductive success, and relationships among marine mammals (Hill et al., 2015). Although sexually mature belugas do engage in sexual activity such as copulation attempts, socio-sexual interaction is not necessarily aimed at reproduction. On the contrary, socio-sexual behavior can be performed for purely social gratification and used to develop and maintain social alliances with different age groups and sex (Connor et al., 2000). Although socio-sexual interaction is an essential behavior for the survival of beluga whale, research regarding this behavioral category is scarce. Thus far, research has indicated that male belugas display significantly higher socio-sexual behavior than females, which may be explained by the fact that female cetaceans, in general, do not appear to participate in as much socio-sexual behavior as males (Gibson & Mann, 2008; Galbicky et al., 2010; Horback, Friedman, & Johnson, 2010).

Socio-sexual behavior in wild animals have been researched far less than animals in human care. In fact, few behavioral repertoires have been established for cetaceans in general. Compiling several individual behavioral catalogs and anecdotal examples, Hill and colleagues (2015) created a comprehensive socio-sexual behavioral repertoire for belugas. Unfortunately, this article did not assess the frequency, sequence, or development of socio-sexual interactions. It is vital to fully understand the behavioral repertoire of captive belugas to identify typical behavior so that abnormal behavior may be easily

identified as they can be indicative of health complications or an unfit social grouping in a captive setting.

Present Research

The purpose of this study was to initiate the process of examining the development of socio-sexual behavior of captive belugas exhibited during the first year of life. We assessed the social-sexual patterns of calves using three measures of sociality: (1) the frequency of the sexual behavior for each beluga; (2) the proportion of time in an interaction (e.g., a genital rub), aggregated across three month intervals; (3) the initiator and receiver of social-sexual interactions. The primary questions examined in this study included:

1) When does socio-sexual behavior emerge in calf development?
2) Do males display socio-sexual behavior at younger ages than females?
3) Do belugas have preferred partners to engage during socio-sexual behavior?

Method

Subjects

Seven beluga calves (*Delphinapterus leucas*) housed at SeaWorld San Antonio were observed during their first year of life. The three males and four females were born at the facility between the years of 2007 and 2013. The first two beluga calves, OLI and GRA, and their mothers were isolated from the beluga population from two months to 10 months of age due to health complications. These male calves and their mothers experienced several bouts of illness during the first year of life (approximately 3 months – both calves, 6 months – OLI only, and 10 months – TIN & OLI). Both calves and their mothers received therapy and successfully rebounded within weeks of diagnosis each time. The four remaining belugas, three females and one male, were born in consecutive years such that there was always another immature beluga present that was one to four years older than the current calf. Table 1 summarizes the demographic characteristics for each mother-calf pair. These four other calves were generally healthy during their first year of life and were maintained with the

beluga population at the facility. Different social compositions were determined by the trainers and individual needs once the calves were bonded with their mothers.

Facility

All mother-calf pairs were born in a triangular-shaped pool (A) that held approximately 2 million gallons and was about 38.1 m (125 ft) by 15.2 m (50 ft) with an average depth of 7.6 m (about 25 ft). See Figure 1 for a schematic of the pool layout. Once the mother-calf pair had bonded, the pair was integrated with other belugas and allowed access to the other pools in the facility. All of the pools in Figure 1 are connected by gates. Pacific white-sided dolphins (*Lagenorhynchus obliquidens*) are also housed at this facility in pools that belugas did not occupy. The two species were able to see each other through net walls.

Table 1
Demographic Information for Belugas Calves

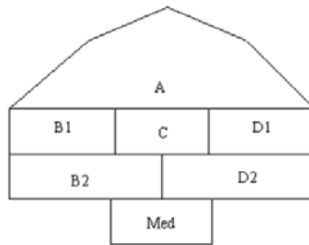| Animal	Sex	Birth Year	Relationships
TIN	F		Mother: LUN, OLI
OLI	M	2007	Offspring: TIN
			Brother: LUN, GRA
MAR	F		Mother: GRA
GRA	M	2007	Offspring: MAR
			Brother: OLI
SIK	F		Mother: QIN
QIN	F	2008	Offspring: SIK
CRI	F		Mother: BEL, STE
BEL	F	2009	Sister: STE, SAM
STE	F		Sister: STE, SAM
LUN	F	2000	Mother: ATL, SAM
			Offspring: TIN
			Sister: OLI
ATL	F	2010	Offspring: LUN
SAM	M	2013	Brother: ATL

Figure 1. Schematic of pool layout of Viva! In Sea World San Antonio. *Note*. Adopted from Hill et al. (2015).

Measures

Social interactions were defined as any time an observed subject voluntarily interacted with another beluga. Social interactions included play, affiliative interactions, complex play, and most important to the current study, socio-sexual behaviors. Table 2 summarizes the socio-sexual behaviors and their definitions. The type of interaction, frequency, duration, and sex of the initiator and recipient were recorded for all social interactions. On occasion, the belugas displayed social-sexual behaviors toward inanimate objects or humans.

Procedure

The author coded the behavior of the beluga neonates from archived video footage of each beluga mother-calf pair. All video recordings were recorded using a focal follow method for each mother-calf pair from birth to 12 months of age. Video recordings generally lasted for 15 minutes. For each calf, four recordings were selected from each month from birth to 12 months of age. Recordings were selected for the presence of social interactions when possible. A total of 288 videos from the archived database were selected for this study.

To account for the different lengths of the videos transcribed, the duration of socio-sexual interactions was converted to percentages by adding the seconds of socio-sexual interactions then dividing by the total time of videos coded in three month intervals. A repeated measures two-way mixed model Analysis of Variance (ANOVA) was used to determine whether there were any significant differences over time and between sex of the seven beluga calves on the percent of time socio-sexual interactions occurred. To test if belugas had a preferred partner while engaging in socio-sexual behavior, a chi-square test of independence was performed.

Table 2

Operational Definitions for Social-Sexual Behavior in Belugas

Socio Sexual Behavior	Description
Mirrored Pair Swim	Swim in which two animals are faced ventral to ventral with actions that are synchronized and mirrored
Mouthing (Figure 3)	The actor opens mouth and rubs it along the receiver's body, does not leave rake marks
Bubble Stream	Series of small bubbles released from blow hole
Synchronized Pair Swim	The swim trajectories are in unison
Directed Gaze	The actor swings its head laterally to point the rostrum at the recipient. This behavior is often involves a rapid reorientation of the actor's whole body towards the recipient.
Open Mouth	The actor, while facing another animal, rapidly opens its mouth fully and holds it open for at least 1 second. Mutual open mouth threats do occur.
Lateral Swim (Figure 1)	The actor rotates body so that the pectoral fins are pointed toward the surface
Pectoral Fin Extension (Figure 1)	The actor extends pectoral fin away from body so that the fin is perpendicular to the body

Horizontal S-Posture (Figure 2)	The actor's body is in a lateral swim position with the genitalia thrust forward and the rest of the body following in a curved position with flukes back, static hold for 2-3s
Vertical S-Posture	The actor's body is vertically positioned in the water column in the shape of an S, static hold for 2-3s
Genital Rubs	The actor moves its genital region along the receiver's body or object
Erections	Penis is extended externally from the genital slit
Pelvic Thrust	The actor pushes genital region toward a recipient

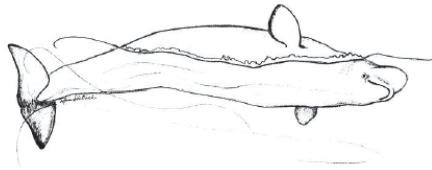*Note*. Adopted from Hill et al. (2015).

Figure 1. Lateral swim with pectoral fin extension. *Note*. Adopted from Hill et al. (2015).
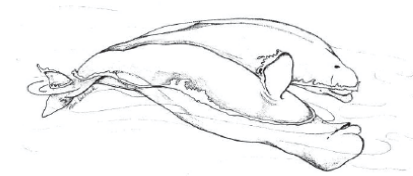

Figure 2. Horizontal S-posture with pectoral fin raised and pelvic thrust. *Note*. Adopted from Hill et al. (2015).
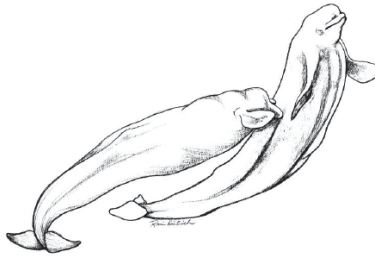
Figure 3. Mouthing. *Note*. Adopted from Hill et al. (2015).

Figure 4. Vertical S-posture. *Note*. Adopted from Hill et al. (2015).

Results

A total of 104 social-sexual interactions were observed out of 5,040 minutes/84 hours of video footage coded. These socio-sexual interactions accounted for less than 1% (i.e., 0.57%, 28.73 minutes) of the total observation time. These findings suggested that across the first year of life and seven beluga calves, socio-sexual interactions occurred at a rate of 1.2 interactions per observation hour.

Emergence of Socio-Sexual Behavior

Two of the beluga calves (28.6%) started engaging in socio-sexual behavior during the first quarter, with three others (42.85%) beginning during the second quarter, one (14.29%) beginning during the third quarter, and the last one (14.29%) never engaging in socio-sexual interactions during the first year at all (Figure 5). A considerable amount of individual variation

in the time spent engaging in socio-sexual activity was observed (Figure 5). As seen in the figure below, although GRA high frequencies of socio-sexual behavior during the first quarter, he had a sudden drop then the amount of socio-sexual interactions rose steadily the rest of the quarters. BEL on the other hand, did not have a steady increase or decrease of socio-sexual behavior during the first year. BEL started engaging in socio-sexual behavior with moderate frequencies during the first quarter ($n = 5$) steadily increased into her second quarter (n = 10) however, she did drop in the third ($n = 4$) and fourth quarter ($n = 1$).

Figure 5. Socio-sexual behavior per quarter for each beluga.
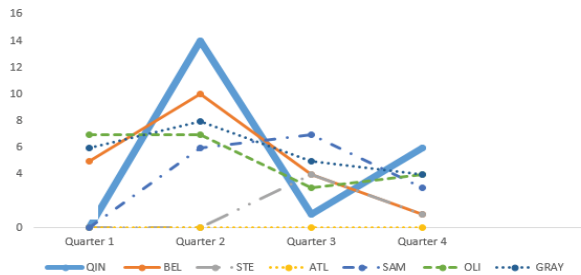
Sex and Socio-Sexual Behavior

Of the 104 interactions observed, 55.77% ($n = 58$) of the social-sexual behavior was initiated by males and 44.23% ($n = 46$) was initiated by females. A mixed model repeated measures ANOVA that there was no significant main effect for age, $F(3,15) = 0.186$, $p > .05$, or for sex of the belugas, $F(1, 5) = 0.526$, $p > .05$. The interaction between the quarters and sex did not obtain significance, $F(3,15) = 2,72$, $p = .082$. However, as seen in Figure 6, the male beluga calves displayed slightly different patterns. A chi-square goodness of fit test indicated the males and females differed significantly in their preferred partner during socio-sexual interactions, $\chi^2(2, N = 104) = 35.60$, $p < .001$. Males

engaged in 38.7% (n = 12) interaction with females and 79.3% (n = 46) with males. Females engaged in 41.3% (n = 19) with other females, 26.1% (n = 12) with males, and 32.6% (n = 15) with non-animate objects and humans. A chi-square goodness of fit test indicated the males and females preferred certain types of socio-sexual positions, $\chi^2(6, N = 104) = 16.82, p < .01$. Males preferred lateral swims with a pectoral extension (%, n =12) while females preferred genital rub (%, n = 16)

Age and Socio-Sexual Behavior

A chi-square test of independence test was conducted to determine if there was a relationship between age and the type of socio-sexual behavior displayed. A significant relationship was found for age per quarter and the frequencies of specific socio-sexual behavior indicating that calves significantly differed on the frequency of socio-sexual behavior initiated, $\chi^2(15, N = 104) = 41.77, p < .001$. Table 3 demonstrates the frequency of socio-sexual behavior for each beluga. During the second quarter lateral swims and genital rubs are the highest frequency. Moving on to the third and fourth quarter you can see how all the belugas start engaging in different position, furthering their socio-sexual

Table 3
Frequency of Socio-Sexual Behavior Interactions per Calf for each Quarter

Beluga	Quarter One	Quarter Two	Quarter Three	Quarter Four
Lateral Swim	7	10	6	3
Genital Rub	9	12	2	2
Nuzzling	1	5	8	6
Raking	0	1	1	2
Lateral S-Posture	1	3	6	5
Pelvic Thrust	1	4	7	1
Chase	0	1	0	0

behavioral catalog.

Sex, Age, and Socio-Sexual Interactions

Although the overall effects for the mixed model ANOVA were not significant, a visual review of Figure 6 suggests that

male calves may be different from the female calves in time spent in socio-sexual interactions during the first quarter. Male calves engaged in socio-sexual behavior 38% of the time while female calves did not display any socio-sexual interactions during this quarter. Male and female calves appeared to engage in socio-sexual behavior more equally during the second quarter (males: 16.66%, females: 22.56%). During the third quarter males (22.2%) displayed twice as much socio-sexual behavior than the females (11.1%), although it was not significantly different. During the last quarter, the trend reversed with females (34.7%) displaying more socio-sexual interactions than the male calves (18.3%).
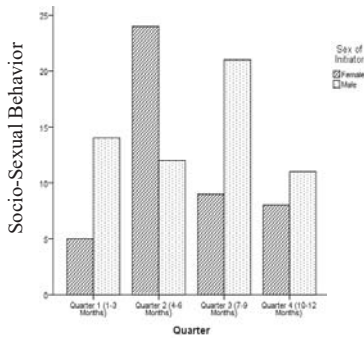
Figure 6. Socio-sexual rates per quarter for females and males.

Preferred Partners

A chi square test of independence was conducted to test the relationship between initiator and preferred partner to engage in socio-sexual behavior. The results indicated that a significant relationship existed between the initiator of the socio-sexual behavior and the receiver, χ^2 (60, $N = 104$) =431.57, $p <. 001$. Overall, males preferred other males (79.31%, $n = 46$) while females preferred other females (61.29%, $n = 19$%). Table 3,

summarizes the number of socio-sexual interactions per calf for each quarter. These results were likely influenced by which calves were grouped with each other and the age of the other calves.

Discussion

The purpose of the current study was to examine the development of socio-sexual behavior in captive beluga whales during the first year of life. Currently, our knowledge of this type of behavior is limited, at best, across cetaceans in general (e.g., bottlenose dolphins and humpback whales) but is particularly sparse with regard to beluga whales. Previous research has primarily focused on the adult elements of socio-sexual behavior, rather than those displayed by developing calves (Krasnova et al., 2009; Glabicky et al 2010; Hill et al., 2015).

Emergence, Frequency, and Nature of Socio-Sexual Interactions

From a collection of archived video recordings of seven beluga calves during their first year of life, socio-sexual behavior occurred in < 1% of the available footage, or 28.73 total minutes across the 5,040 min of footage coded. These findings suggest that socio-sexual behaviors do emerge during the first year of life but are not observed frequently and do not last for long periods of time. This developmental pattern appears to be consistent across cetaceans although some species, such as bottlenose dolphins, display socio-sexual behavior much earlier and more often (Mann & Smuts, 1999).

Of the limited socio-sexual interactions, male calves engaged in socio-sexual activities slightly more than half of the total time. The results of the current study also suggested that male and female calves may engage in socio-sexual behavior differently. For example, the female calves engaged in more affiliative socio-sexual behavior (e.g., rubbing) while the male calves engaged in more visual and active forms of socio-sexual behavior (e.g., S-postures and pelvic thrusts). These results were similar to previous research with adult male belugas in which they were observed to display S-postures and pelvic thrusts more often than female belugas (Glabicky et al., 2011). However, they are

different from observations on bottlenose dolphin calves in which calves of both sexes display in socio-sexual behaviors by the second week of life (Mann & Smuts, 1999). Same-sex partner preferences were observed significantly more often than mixed-sex partner preferences. This finding is often found in cooperative play bouts for dolphins (Greene et al. 2011) and belugas (Hill & Ramirez, 2014). Socio-sexual interactions between the calves and their mothers were observed rarely. Instead, the calves were more likely to engage in socio-sexual interactions with calves of their same age group. Overall, the male calves did not have any socio-sexual interactions with their mothers or non-kin female adults.

Age

The beluga calves appeared to prefer to engage in socio-sexual behavior with belugas who were in the same age range (up to 1-2 years older). This developmental trend matches developmental trends observed during play interactions between dolphins and belugas (Hill & Ramirez, 2014; Mann & Smuts, 1999). However, the results could be an artifact of the social setting, which was established by the trainers caring for the animals and usually produced social groupings that involved mother-calf pairs only or adults only. Also as calf grew, it was distinctive as they went through the three levels of play. For instance, BEL swam most of her early months with mom, then engaged with the recorder or objects, and during the last months she engaged in play bouts with other belugas.

Limitations

Recordings from the first year of life for each calf were specifically examined for this study. It is possible that socio-sexual behavior is not a significant component of the behavioral repertoire of beluga calves during the first year and becomes so as they age and move closer to weaning. It is also possible that the development of socio-sexual behavior is dependent upon mixed-sex, mixed-age groups, which were not always possible in the social groupings created in captive settings. It is also possible that socio-sexual behavior may have been under-represented as focal follows were not available for all calves at every month. Some

video recordings were collected using a scan sample technique and perhaps the calves were not captured as often during the sampling protocol. There was a large amount of individual variability across the calves in terms of frequency of socio-sexual behaviors and its emergence. This variability likely influenced the results, particularly when the small sample size is considered. This issue is especially problematic as some of the calves experienced bouts of illness during the first year of life that resulted in suppressed independence and social interactions with others. These limitations could be addressed with additional longitudinal research on more beluga calves in captive and wild environments.

Future Research

Closely related species, like dolphins, seem to have development trends similar to belugas, such as in offspring care, maternal behaviors, and offspring independence (Hill & Campbell, 2014; Krasnova et al., 2006, 2009). However, the results of this study suggest that belugas and dolphins may be different in their socio-sexual development (Hill, 2009; Hill et al., 2015; Mann & Smuts, 1999). While beluga calves appear to have more opportunities at earlier ages to swim independently from their mothers and potentially more opportunities to socialize than dolphin calves (Hill, 2009; Hill et al., 2015), the beluga calves did not perform socio-sexual behavior as early as dolphin calves did nor as frequently in the first couple years of life (Quincy & Gibson, 2008).

To address this possible difference, additional research should be conducted that extends the observational period from the first year of life into the years following weaning and approach to sexual maturity. Following the same and additional belugas longitudinally, provides opportunities to observe the development of socio-sexual behavior across critical developmental periods (neonate state, weaning, juvenile period, and sexual maturity). It is also suggested that future research includes beluga whale populations housed at other facilities. By including other beluga populations the different characteristic of socio-sexual behaviors may be examined across different captive

settings to determine if any social behaviors differ. Researchers should also examine socio-sexual interactions in the wild, to better understand the role these behaviors play in the development of belugas, and to be able to compare captive and wild populations. By examining the behavioral development of belugas in the wild, trainers and scientist are also better able to care for the animals in captivity. It is essential for scientists to know the facts about all the animals in captivity so that they can educate the general public to avoid misunderstandings created by social media. Finally, this information will enable all of us to understand the needs of these animals, which will ultimately help in supporting these species in their natural habitat and in human care.

References

Bateson, P. (2014). Play, playfulness, creativity and innovation. *Animal Behavior and Cognition*, *1*, 99-112. doi: 10.12966/abc05.02.2014

Burghart, G. M. (2014). Brief glimpse at the long evolutionary history of play. *Animal Behavior and Cognition, 1*, 90-98. doi: 10.12966/abc.05.01.2014

Burghart, G.M (1999). Chapter 12 Play. *Comparative Psychology: A Handbook* (pp.725-735) NY: Garland Publishing. Retrieved from: http://web.utk.edu/~gburghar/ply32099.htm

Connor, R.C., Smolker, R.A., Richards, A.F. (1992). Dolphin alliances and coalitions. In *Coalitions and Alliances in Animals and Humans* (eds. Harcourt A, de Waal F). Oxford University Press: Oxford. pp. 415–443.

Connor, R.C., Smolker, R.A., & Richards, A.F. (1992). Two levels of alliance formation among male bottlenose dolphins (*Tursiops* sp). *Proceedings of the National Academy of Sciences* 89: 987–990.

Glabicky, N., DuBrava, A., & Noonan, M. (2010). Social–sexual behavior seasonality in captive beluga whales (Delphinapterus leucas). *Polar biology*, *33*, 1145-1147. Retrieved from: http://link.springer.com/article/10.1007/s00300-010-0790-3
Gibson, Q, A., Mann, J., (2008). "Early social development in wild bottlenose dolphins: sex differences, individual variation, and maternal influence." *Animal Behavior,3,* doi:10.1016/j.anbehav.2008.01.021

Greene, W. E., Melillo-Sweeting, K., & Dudzinski, K. M. (2011). Comparing object play in captive and wild dolphins. *International Journal of Comparative Psychology, 24,* 292-306. Retrieved from: https://escholarship.org/uc/item/3368z4tq

Hill, H. M., Dietrich, S., Yeater, D., McKinnon, M., Miller, M., Aibel, S., & Dove, A. (2015). Developing a catalog of socio-sexual behaviors of beluga whales (*Delphinapterusu leucas*). *Animal Behavior and Cognition, 2*, 105-123. doi: 10.12966/abc.05.01.2015

Hill, H., & Ramirez, D. (2014). Adults play but not like their young: The frequency and types of play by belugas (Delphinapterus leucas) in Human Care. *Animal Behavior and Cognition,* 1, 166-185. doi:10.12966/abc.05.07.2014

Hill, H. M., Campbell, C., Dalton, L., Osborn, S. (2013). The first year of behavioral development and maternal care of beluga (Delphinapterus leucas) caves in human care. *Zoo Biology*, *32*, 565-570. Retrieved from: http://escholarship.org/uc/item/7jn2q5c6

Held, S. D., & Špinka, M. (2011). Animal play and animal welfare. *Animal Behaviour, 81,* 891-899. Retrieved from: http://www.sciencedirect.com/science/article/pii/S000334 721100008X

Hill, H. M., Greer, T., Solangi, M., Kuczaj, I. I., & Stan, A. (2007). All mothers are not the same: Maternal styles in bottlenose dolphins (*Tursiops truncatus*). *International Journal of Comparative Psychology*, *20*, PAGES. Retrieved from: http://escholarship.org/uc/item/0390q1j9

Horback, K. M., Friedman, W. R., & Johnson, C. M. (2010). The occurrence and context of s-posture display by captive belugas (*Delphinapterus leucas*). *International Journal Of Comparative Psychology, 23*, 689-700.

Karenina, K., Giljov, A., Glazov, D., & Malashichev, Y. (2013). Social laterality in wild beluga whale infants: comparisons

between locations, escort conditions, and ages. *Behavioral Ecology and Sociobiology, 67*, 1195-1204.

Karenina, K., Giljov, A., Baranov, V., Osipova, L., Krasnova, V., & Malashichev, Y. (2010). Visual laterality of calf-mother interactions in wild whales. Plos One, 5,PAGES. e13787. doi:10.1371/journal.pone.0013787

Krasnova, V. V., Bel'kovich, V. M., & Chernetskii, A. D. (2008). Formation of behavior in the white sea beluga calf, *Delphinapterus leucas*, during early postnatal ontogenesis. *Russian Journal Of Marine Biology*,*1*, 53. doi 10.1134/S1063074009010088

Krasnova, V., Bel'kovich, V., & Chernetsky, A. (2006). Mother-infant spatial relations in wild beluga (*Delphinapterus leucas*) during postnatal development under natural conditions. *Biology Bulletin, 33*, 53-58. doi:10.1134/S1062359006010079

Kuczaj, S. A., Makecha, R., Trone, M., Paulos, R. D., & Ramos, J. A. (2006). Role of peers in cultural innovation and cultural transmission: evidence from the play of dolphin calves. *International Journal of Comparative Psychology*, *19*, 223-240. doi: http://escholarship.org/uc/item/4pn1t50s

Mann, J. (2006). Establishing trust: socio-sexual behaviour and the development of male-male bonds among Indian Ocean bottlenose dolphins. *Homosexual Behaviour in Animals*, 107-130. Retrived from: https://2ea282a2-a-62cb3a1a-s-sites.googlegroups.com/site/mannlabproject/file-cabinet/Mann-2006-Establishingtrust-socio-sexualbehaviourandthedevelopmentofmalemalebonds.pdf?attacha uth=ANoY7cqG5oiA5wDoZ_8pJ9XSdXAdcgcAEUF_OOcAaLu n4vLsoi7oNVpCrg6poDlZQweBHH-PwhWip0WebD67Lge9aN97t0NeQ-2jCP6Z36Hd3UdQ221kfjRJExuxh8JW2neJam2wS0fv8I51kNVjs 5soddcn5tDL_0cnQ27gSoVrRRMI3ihPBDqSOapVDadpmhSwM

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tmATVTmb8SkkZdS5_zZb9VOX_YMo5WGbJhZi1Yd113WiR
nvvKkrauygoALGw%3D%3D&attredirects=0

Mann, J., & Smuts, B. (1999). Behavioral development in wild bottlenose dolphin newborns (*Tursiops sp.*). *Behaviour*, *136*, 529-566. doi: 10.1163/156853999501469

Frequency of Provision of Pro Bono Services Based on State Physical Therapy Direct Access Level

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Providing pro bono services has been proposed as a way to improve access to health care services. Providing pro bono services is an expectation in the legal profession as opposed to being recommended in the medical and physical therapy professions. It is hypothesized that referral restrictions within state direct access policies may be related to lower frequencies of performance of pro bono services. The purpose of this study was determine if the frequency of provision of pro bono services by licensed physical therapists is different based on state direct access levels. A survey was conducted among licensed physical therapists from ten states in Oct. 2015 and Jan. 2016 (n= 2414). Participants were asked to complete a Likert scale self-rating of how often they Provide Pro Bono Services. States were classified into two systems of categorization: 1) Traditional APTA direct access levels: Unrestricted, Provisional, and Limited, and 2) Unrestricted, Limited by Treatment, Limited by Time/Visits, and Limited by Referral or Provider Access. Practicing in a state with Limitations by Referral or Provider Access was negatively and weakly correlated ($r = -.040$, $p = .047$) with the frequency of provision of pro bono services. Chi-square analysis indicated there were no significant differences between states based on the Traditional APTA categories or by the four-category restriction categories. Further analysis of pro bono services by direct access

levels taking additional individual and local/organizational factors into account is suggested.

       Physical therapy services are required for clients across the spectrum of insurance coverage including individuals that either uninsured or underinsured. There is an estimated 46.6 million uninsured people living in the United States (DeNavas, 2006). Consequences of being uninsured can include a lack of usual source of care; fewer referrals for specialty health care services such as physical therapy; less access to preventative health services and health education (Haas, 1994; Earnest, 1996; Bartman, 1997; Berk, 1998; Kessler, 2003;). A person is classified as "underinsured" if they meet one or more of the three following conditions: annual out-of-pocket medical expenses are ten percent or more of income, or among low-income individuals the out-of-pocket medical expenses are five percent or more of income, or deductibles equal or are more than five percent of income (Schoen, Doty, Collins, & Holmgren, 2005). These individuals often are unable to receive the level of medical care that they need and may accrue greater medical bills. Half of underinsured (54%) and uninsured (59%) individuals reported went without at least one of four needed medical services: failure to fill a prescription, show up to a test or follow-up, or visit a physician for a medical problem, and/or did not receive specialist care, which was twice the rate of those with adequate insurance (Schoen, Doty, Collins, & Holmgren, 2005). Uninsured individuals may avoid seeking care because of their inability to pay for services. Unfortunately, adverse health outcomes and increased health care costs may be the result (McCallum, 2010). Underinsured and uninsured individuals reported having an equal amount of medical bill stress (Schoen, Doty, Collins, & Holmgren, 2005). For example, 46 % of underinsured and 44 % of uninsured individuals were contacted by a collection agency (Schoen, Doty, Collins, & Holmgren, 2005). In 2010, the number of people living below the poverty line in the United States was reported to be 46.2 million (Tavernise, 2011), which makes up 15.1% of the population (Denavas, 2010). Greater obstacles arise

for underinsured and uninsured individuals, who are medically vulnerable, when it comes to accessing health care services and have a greater prospect of negative health care outcomes (Bryoles, 2002; Cable, 2002). Health insurance is a critical factor in access to health care and a function of health policy (Mascarenhas & Salsberry, 2001). The following sections will discuss pro bono services in the professional fields of physical therapy, legal, and medical along with direct access in physical therapy.

Pro Bono Services in Physical Therapy

While there are no legal or professional requirements for physical therapists to provide pro-bono services, the American Physical Therapy Association (APTA) does address the expectation that physical therapists will provide of pro bono services within the *Code of Ethics for the Physical Therapist* and in the *Professionalism in Physical Therapy Core Values* document (American Physical Therapy Association 2003; American Physical Therapy Association, 2013b). The reference to provision of pro bono services, the *Code of Ethics for the Physical Therapist* can be found in Principle 8A of the APTA's which states, "Physical therapists shall provide pro bono physical therapy services or support organizations that meet the needs of people who are economically disadvantaged, uninsured, and underinsured" (American Physical Therapy Association, 2013b, p. 2). Provision of pro bono services is also listed as one of the sample indicators of the *Professionalism in Physical Therapy Core Value* of Altruism (American Physical Therapy Association, 2003). Additionally, Health Policy and Administration Section members have worked to develop the Pro Bono Network to support the quality development of pro bono clinics (American Physical Therapy Association, 2013a).

Physical therapy pro bono services are offered in a variety of forms including, but not limited to, "providing reduced fee or free care, volunteering for organizations, donating professional expertise to the community through health awareness/health promotion presentations, engaging in activities that may improve access to physical therapy, and offering financial support for

organizations that deliver physical therapy services to people that have a financial crisis" (American Physical Therapy Association, 2009, p. 1). Despite pro bono being a free service, physical therapist are still required to provide the same standard of practice (Scott 1993, Scott, 2001). Currently, healthcare is not a constitutional right, but many in society view it as a human right (Scott, 2001). Health care professionals, like physical therapist, are required by ethical and professional standards to provide physical therapy to patients (Greenberg, 2012).

Pro Bono In the Legal Profession

When referring to the term pro bono services, it may be originally associated with the legal profession. Pro bono in the case of the legal profession is described as an individual member of the legal profession voluntarily, without pay, helping people with their legal problems (Oxford Dictionary, 2014). History shows that the legal profession has not dedicated sufficient voluntary pro bono service to those in need or organizations that have assisted in pro bono work (Auerbach, 1976). The late nineteenth century proved to be a starting point for the legal profession when the first American legal aid societies were founded (Auerbach, 1976). By the mid-twentieth century, the bar sought to encourage greater pro bono services involvement (Rhode, 2005). No later than the 1970's, this growing concern and support for pro bono initiatives paid its dividends when it found recognition in the ABA's Code of Professional Responsibility. Several of its aspirational Ethical Considerations address lawyers' obligations to broaden access to the legal system; specifically, the need for legal services of those unable to pay (Rhode, 2005). As a result Rule 6.1 stated: "A lawyer should render public interest legal service. A lawyer may discharge this responsibility by providing professional services at no fee or a reduced fee to persons of limited means or to public service or charitable groups or organizations, or by service in activities for improving the law, the legal system or the legal profession" (American Bar Association, 2016, p.1). History shows that there has been a progression of pro bono in the legal profession. As of 2015, 18% of states require pro bono reporting, 26% of states

have voluntary pro bono reporting, and 56% of states have no pro bono reporting (American Bar Association, 2015). Despite data indicating that four-fifths of the estimated legal needs of the poor remain unmet and less than one percent of the nation's legal expenses go to legal aid (Rhode, 2004). Over the past two decades, there have been efforts to bolster pro bono ethical standards but there is still work to be done (Rhode, 2005).

Pro Bono In the Medical Profession

The definition of pro bono services, and the level of commitment to providing pro bono service vary across different professions. In the medical profession, the AMA Code of Ethics states that, "a physician shall recognize a responsibility to participate in activities contributing to the improvement of the community and the betterment of public health" (American Medical Association, 2001, p. 1). This statement is vague and it is unclear whether it includes provision of pro bono services. However, the AMA Code of Ethics does make it clear that, "a physician shall, in the provision of appropriate patient care, except in emergencies, be free to choose whom to serve, with whom to associate, and the environment in which to provide medical care" (American Medical Association, 2001, p. 1). Despite the lack of mandate, evidence shows that physicians do provide pro bono services. When physicians in this study were asked, what percentage of your practice is devoted to pro-bono work? The median response was 5% with the responses being recoded on a 5 point scale: 0%= 0; 1-5%; 6-10%= 2; 11-24%= 3; >25%= 4. On average, physicians dedicated about 5% of their practice to pro bono services (Gross, 1997). Further evidence in this study indicated that ethics interest and pro bono work are positively associated with ethics training (Gross, 1999). Another study focused on pro bono services among woman physicians that defined pro bono as "the provision of uncompensated care" (Frank, Breyan, & Elon, 2003, p. 594). These findings found that 71% ($n = 4501$ respondents) participate in pro bono services a median of 4 hours/week with 19% providing more than 5 hours/week (Frank, Breyan, & Elon, 2003). Pro bono services are not required in the medical profession, which would suggest that

pro bono work patterns among women physicians exceed basic professional requirements. However, one study found that male physicians are a little more prone to giving reduced-fee care than are women physicians with gender being a non-factor in helping to predict the number of hours spent giving reduced-fee care (Cunningham, 1999).

Barriers to Health Care for the Patient

Patients seeking healthcare deal with a variety of obstacles and barriers to get the medical attention they need. Now, more than ever, it has become apparent that racial and ethnic minorities and people of low socioeconomic status continue to face barriers to health care access (Agency for Health Care Research and Quality, 2014). The Institute of Medicine defined access to health care as, "the timely use of personal health services to achieve the best possible health outcomes. Importantly, this definition relies on both the use of health services and health outcomes to provide yardsticks for judging whether access have been achieved" (Institute of Medicine, 2001). Moreover, it has become evident that costs are a foundational component in determining the value in health care (Rundell et al., 2015). Providers, patients, payers, and society measure the driving factor in the costs of a health service. For instance, the cost of a copayment physical therapy visit may depend on clinical site, coverage plan, and insurance provider (Rundell et al., 2015). Four themes have been identified that measure access to health care: structural factors, patient perception issues, utilization of care issues, and outcome measures **(**Mascarenhas, 2001; Ricketts, 2005). 1: Structural factors include problems like health insurance. 2: Patient perception issues include patient satisfaction with health care services. 3: Utilization of care issues includes having a usual source of care, entry into the health care system, preventative services, and the use of emergency services. 4: Outcome measures include health behaviors and status (Mascarenhas, 2001; Ricketts, 2005). Therefore, health care access can be determined by many factors such as, but not limited to, population-based and individual characteristics, health care services, and outcomes. Health insurance is one of the most important measurements in

determining access to health care services (Aday, 1981; Mascarenhas, 2001). Health insurance facilitates entry into the health care system; consequently, individuals lacking health insurance lack a usual source of care (Agency for Health Care Research and Quality, 2014). Pro bono services may have the potential to increase access to care for the uninsured or underinsured.

Barriers to Performing Pro Bono Services

Health care services have many benefits for the individuals including reducing or eliminating illness and improving the quality of life (Greenberg, 2012). The contributions that come from health care would justify providing health care services for free or reduced fee: pro bono services. These include having the medical care that they need and the elimination of having to struggle with medical bills. Despite the benefit to the patients, barriers may arise when providing pro bono physical therapy services. Physical therapists in the field have indicated that lawsuits and liability issues are a concern. Accurately or not, the medical community has perceived uninsured or poor patients as individuals that are more likely to sue a practitioner (Greenberg, 2012).

Direct Access as A Potential Barrier

The education of physical therapists has expanded since the professional degree changed from being a master in physical therapy to doctorate in physical therapy (DPT) (Durant, 1981; (Moffat, 2003; Neiland, 2003). Physical therapy is a growing field and services account for a substantial portion of ambulatory care costs in the United States. In 2006, nearly 3.9 million Medicare beneficiaries received physical therapy services in ambulatory settings. This accounted for $3.1 billion in payments to outpatient and office-based physical therapy practices (Ciolek & Hwang 2008). Greater depth of knowledge prepares these physical therapist for autonomous and direct access practice (James, 1975; Dennis, 1987; Donatto, 2004; Joyce, 2005; Johnson, 2005; Boissonnault, 2010; American Physical Therapy Association, 2015a). For this reason, attaining professional autonomy in the field of physical therapy seems to be a high priority. The World

Confederation for Physical Therapy (WCPT) states that autonomy for physical therapists is defined as being able "to act as first contact practitioners, and patients/clients may seek services directly without referral from another health care professional" (World Confederation for Physical Therapy, 2011, p. 2). As a result, that means that professional autonomy in the field of physical therapy is enhanced through direct access and patient self-referral. If another profession serves as gatekeepers to physical therapy services, it reduces professional autonomy (Sandstrom, 2007). The scope of practice in the physical therapy field has expanded and supports the model of direct access (McCallum & DiAngelis, 2012). In June 2000, the American Physical Therapy Association released its vision supporting a direct access environment to allow patients better access to physical therapy services (American Physical Therapy Association 2015b).

Levels of Direct Access

In 1973, the APTA House of Delegates established the "guidelines [that] stipulate the professional and ethical implications and responsibilities of [physical therapist] evaluation [of patients] without practitioner referral" (American Physical Therapy Association, 1973, p. 8). The House of Delegates revised this resolution in 1978 to "devise a plan for the development of physical therapy practice [evaluation and treatment] independent of practitioner referral" (American Physical Therapy Association, 1978, p. 10). In 1978, only 2 states did not require physician referral for evaluation and treatment by a physical therapist (Shoemaker, 2012). At the start of 2016 only Alabama and Indiana still require a physician referral for both evaluation and treatment by a physical therapist (American Physical Therapy Association, 2015c). Based on the APTA categorization, the levels of direct access from least to most restrictive are: Unrestricted, Provisional, and Limited. In this case, unrestricted direct access refers to patients having access to evaluation and treatment services of a physical therapist without referral from a physician (Bury & Stokes, 2013). However, the term unrestricted does come with a stipulation. Some examples include the

prohibition of radiology, surgery, or medical diagnosis of disease (American Physical Therapy Association, 2015c). While provisional direct access refers to physical therapy treatment services typically limited by time and/or a number of visits before primary care provider approval is required. Other examples of provisional direct access include: referral to a physician if not enough progress is made, experience or continuing education requirements, and prior referral for physical therapy for the same problem (Shoemaker, 2012). Additional requirements may include referrals from medical providers because of legal constraints, third-party payer requirements for reimbursement, and hospital bylaws (Ojha, Snyder, & Davenport, 2014). Limited direct access states require physician referral for physical therapy services thus limiting access to evaluation and/or initiation of treatment for certain patient populations or certain situations (Ojha et al., 2014). Some examples include, but are not limited to and may vary by state, a physical therapist must have a referral and relevant diagnosis from a physician to treat, a physical therapist may treat a chronic problem without a prescription, only if the patient was previously diagnosed and prescribed physical therapy treatment within the last year (American Physical Therapy Association, 2015c). As of September 2015, 18 states have unrestricted direct access, 25 states have a variety of provisions, and 7 states have limited direct access (American Physical Therapy Association, 2015c). Additional layers of categorization are looked at in this study beyond the traditional APTA categories when referring to provisional and limited direct access levels. Stratified categorizations are as follows: Unrestricted, Limitation by Treatment, Limited by Time/Visits, and Limited by Referral (or Primary Care Provider).

Research Question

Given that direct access referral, time/visits, and treatment restrictions may create an extra obstacle to initiating or continuing physical therapy pro bono services our research question is as follows:

- Is the frequency of the provision of pro bono services associated with state direct access levels?

Hypothesis

Physical therapist's practicing in states with limitations by referral will report lower frequencies of providing pro bono services.

Method

Participants

The Institutional Review Board of the University of the Incarnate Word approved the research study. A sampling of active, licensed physical therapists was performed by surveying physical therapists from a variety of states with physical therapists' e-mail addresses available for acquisition from the State Licensure Boards. Of the available states sampling was performed based on diversity of the following variables: political environment, geographic location, and direct access levels. The selection of states based on basic direct access levels defined by the APTA were as follows: Connecticut (CT)- Provisional, Florida (FL)- Provisional, North Carolina (NC)- Provisional, New Mexico (NM)- Provisional, Ohio (OH)- Provisional, Rhode Island (RI)- Provisional, Oregon (OR)- Unrestricted, Utah (UT)- Unrestricted, Wyoming (WY)- Limited, and Texas (TX)- Limited. Inclusion criteria were as follows: active, licensed physical therapist, within the surveyed states. Required informed consent was obtained in the first question of the online survey. The survey was sent by e-mail with a link to SurveyMonkey in October 2015 (FL, OH, OR, RI, TX, UT, WY) and again in January 2016 (CT, NC, NM). After the initial survey link was sent a follow-up e-mail was sent 2 weeks later. After the final email reminder, the survey remained open up to 4 weeks, which at that point the survey closed and data was downloaded. Participants were asked to complete a Likert scale self-rating (1 = Never, 2 = Rarely, 3 = Occasionally, 4 = Frequently, 5 = Always) of how often they Provide Pro Bono Services. Additionally, participants were asked to confirm the primary state in which they practice physical therapy. The survey also contained additional Likert scale rating of other physical therapy core values and demographic and practice setting questions. The present paper will only consider the questions related to the independent

variable of state of practice direct access level and the dependent variable of the self-ratings of the frequency of the provision of pro-bono services.

Procedure

For the purpose of testing for differences in frequency of provision of physical therapy services by state and direct access levels states were stratified by the following categories of direct access levels: Unrestricted: UT, OR; Limited by Intervention: CT, NC, OH; Limited by Time/Visits: CT, FL, NM, OH, RI; Limited by Referral (or Primary Care Provider): OH, TX, WY. Chi-Square test of independence were to determine if the frequency of provision of pro bono services by licensed physical therapists is different based on various categories of state direct access levels with $\propto$ = .05 as criterion for significance. Pearson's R Correlation tests were performed in SPSS to test for associations between various levels of direct access and the frequency of the provision of pro-bono services with $\propto$ = .05 as criterion for significance.

Results

Correlation testing indicated that none levels of direct access based on the APTA classification (Unrestricted, Provisional, or Limited) were significantly related with the frequency of provision of pro bono services (Table 1). Based on the four-tier categorization (Unrestricted, Limitation by Treatment, Limitation by time/visits, Limitation by Referral/Provider Access) practicing in states with Limitations by Referral" or "Limitation by Primary Care Provider" (OH, TX, WY) was negatively and weakly correlated ($r = -.040$, $p = .047$) with the frequency of pro-bono service provision.

Table 1: Correlations between Categories of Direct Access Levels and the Frequency of Provision of Pro Bono Services

Direct Access Categorization	Pearson's R Correlation	P Value
APTA Categories: Unrestricted, Provisional, or Limited	0.018	0.365
Unrestricted vs. Provisions/Limited	0.021	0.294
Limited vs. Unrestricted/Provisional	-0.008	0.698
Four-Tier Categorization		
No Limitation by Referral or Time/Visits	0.023	0.262
Limitation by Referral/Provider Access	-0.040	0.047*

*$p < .05$

Based on Chi-Square analysis there was no significant difference in the frequency of provision of pro bono services between the direct access levels using the APTA categorization (Table 2). Additionally, when comparing categories individual categories using the 4-tier categorization there were no significant differences. The state of Ohio was the only state with Limitations by Referral/Provider Access, Time/Visits, and Treatment. Comparison of Ohio vs. all other states via Chi-square analysis ($x^2(4) = 13.915$, $p \leq .05$) indicated physical therapist in Ohio performed a lower frequency of providing pro bono services. Figure 1 demonstrates the distribution of responses on the Likert scale from responses by physical therapists in Ohio compared to physical therapists from the other states. Physical therapists from Ohio reported "Never" performing pro bono services (20.4%, $n = 74$) more often than the "Other States with No Limitations" (15.0%, $n = 308$). Additionally, physical therapists from Ohio reported "Frequently" performing pro bono services (9.1%, $n = 33$) less often than physical therapists from the other states (14.1%, $n = 289$).

Table 2: Chi-Square Analysis of Differences in Frequency of Provision of Pro Bono Services based on Direct Access Categories

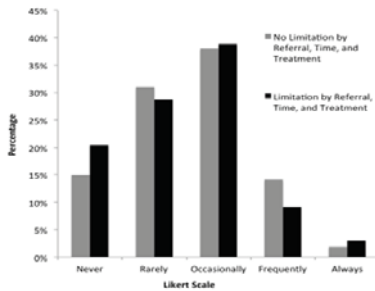| Direct Access Categorization	Chi-Square	Degrees of Freedom	P Value
APTA Categories: Unrestricted, Provisional, or Limited	3.931	8	0.864
Unrestricted vs. Provisions/Limited	1.528	4	0.822
Limited vs. Unrestricted/Provisional	2.063	4	0.724
Four-Tier Categorization Limitation by Referral (OH, TX, WY)	5.617	4	0.230
No Limitation by Referral or Time/Visits (NC, OR, UT)	2.103	4	0.717

Figure 1: Percentages for provision of pro bono on Likert scale for no limitations by referral, time, and Ohio with limitation by referral/provider access, time/visits, and treatment.

Discussion

The purpose of this study was to determine if the frequency of provision of pro bono services by licensed physical therapists differs based on state direct access levels. Specifically, our hypothesis that licensed physical therapist's practicing in states with limitations by referral or primary care provider access would report lower frequencies of providing pro bono services was not supported by the results. While the extra step of seeking a referral from a provider may appear to be an extra barrier and weak correlations with the frequency of pro bono service provision exist, the results of this study indicate there is no difference in the frequency of the provision of pro bono services based on the direct access level categories.

Ohio was the only state included in our study with limitations on all of the three following categories: Referral, Time/Visits, and Treatment. Our results indicate that physical therapists practicing in this state (OH) with "Limitation by Referral, Time, and Treatment" reported a lower frequency in providing pro bono services when compared to physical therapist practicing in states with "No Limitation by Referral, Time/Visits, and Treatment." It is possible that the accumulation of limitations by provider access, on time/visits, and on specific treatments may have influenced the frequency of pro bono services in Ohio, though other unexplained factors may be responsible for this difference.

Given that direct access levels were at best weakly correlated with the frequency of the provision of pro-bono services, future studies may test for relationships with other factors. It is possible other factors such as the characteristics of the individual physical therapists and the economic environment of a given states influences pro-bono behaviors. Individual factors such as life stage, financial flexibility, and the level of professional networking could be a factors that influence how often physical therapists provide pro bono services. More rigorous statistical methods, such as regression analysis, could indicate which factors explain more of the variance of the frequency with which pro-bono services are performed. Further,

conducting a qualitative study surveying physical therapist and their proposed barriers could provide more insight into pro bono patterns. Further research on pro bono services and direct access levels can be carried out to expand our comprehension on the fundamental motivations for pro bono services in the field of physical therapy.

Provision of pro bono physical therapy services continues to be a potential way to provide care to patients who are uninsured or underinsured. Based on the current results direct access levels in state practice acts do not appear to significantly limit the frequency of pro bono care. Therefore instead of focusing on state levels policies, efforts to increase the offering of pro bono services may focus on individual or local/corporate factors. Some evidence exists that individual ethics training is positively associated with pro bono work (Gross, 1999). Thus promoting ethics training programs for individual physical therapists and companies is a step that could potentially increase pro bono offerings. Developing further understanding of barriers to providing pro bono services can potentially increase access to physical therapy services to optimize movement and health for a greater number of people in our society.

Conclusion

The results of this study provide some insight into the relationship between direct access and the provision of pro bono services among licensed physical therapist. Contrary to our hypothesis, limitation by referral as a significant barrier to performing pro bono services was not supported in this study. Additional research into the barriers that affect pro bono services among physical therapist should be conducted.

References

Aday, L., & Andersen, R. (1981). Equity of access to medical
care: A conceptual and empirical overview. *Medical Care,
19*(12), 4-27.

Agency for Health Care Research and Quality. (2014). *2013
National Healthcare Quality Report*. Retrieved from
http://www.ahrq.gov/sites/default/files/wysiwyg/research/findings
/nhqrdr/nhqr13/2013nhqr.pdf

Auerbach, J. S. (1976). *Unequal justice: Lawyers and social
change in modern America*. Oxford University Press.
American Bar Association. (2015). *Reporting of Pro Bono
Service*. Retrieved from
https://apps.americanbar.org/legalservices/probono/reporting/pbre
porting.html

American Bar Association. (2016). *Rule 6.1: Voluntary Pro Bono
Public Service*. Retrieved from
http://www.americanbar.org/content/dam/aba/administrative/prof
essional_responsibility/mrpc_6_1.authcheckdam.pdf

American Medical Association. (2001). Principles of Medical
Ethics. Retrieved from
http://www.ama-assn.org/ama/pub/physician-resources/medical-
ethics/code-medical-ethics/principles-medical-ethics.page

American Physical Therapy Association. (1973). House of
Delegates stenotypist notes.

American Physical Therapy Association. (1978). House of
Delegates stenotypist notes.

American Physical Therapy Association (2003). Professionalism
in physical therapy: core values. Retrieved from
http://www.marquette.edu/physical-
therapy/documents/APTACoreValues.pdf

American Physical Therapy Association. (2009). *Guidelines: Pro bono Physical Therapy Services.* HOD G06-93-21-39. Retrieved from
https://www.apta.org/uploadedFiles/APTAorg/About_Us/Policies/HOD/Health/ProBono.pdf

American Physical Therapy Association. (2013a). Networking About Pro Bono Services. Retrieved from
http://www.apta.org/ProBono/Networking/

American Physical Therapy Association (2013b). Code of Ethics for the Physical Therapist. Retrieved from
https://www.apta.org/uploadedFiles/APTAorg/About_Us/Policies/HOD/Ethics/CodeofEthics.pdf

American Physical Therapy Association. (2015a). Direct Access: How It Can Change Your Practice.
Retrieved from
http://www.apta.org/DirectAccess/HowItCanChangeYourPractice

American Physical Therapy Association. (2015b). Vision 2020. Available at: http://www.apta.org/Vision2020/

American Physical Therapy Association. (2015c). A Summary of Direct Access Language In State Physical Therapy Practice Acts. Retrieved from
https://www.apta.org/uploadedFiles/APTAorg/Advocacy/State/Issues/Direct_Access/DirectAccessbyState.pdf

Bartman, B. A., Moy, E., & D'angelo, L. J. (1997). Access to ambulatory care for adolescents:The role of a usual source of care. *Journal of Health Care for the Poor and Underserved, 8*(2), 214-226. doi:10.1353/hpu.2010.0466

Berk, M. L., & Schur, C. L. (1998). Access to care: How much difference does Medicaid make? *Health Affairs, 17*(3), 169-180. doi:10.1377/hlthaff.17.3.169

Boissonnault, W. G., Badke, M. B., & Powers, J. M. (2010). *Pursuit and Implementation of Hospital-Based Outpatient Direct Access to Physical Therapy Services: An Administrative Case Report. Physical Therapy,* 90(1), 100-109. http://dx.doi.org/10.2522/ptj.20080244.

Broyles, R., Narine, L., & Brandt, E. (2002). The temporarily and chronically uninsured: Does their use of primary care differ? *Journal of Health Care for the Poor and Underserved, 13*(1), 95-111. doi:10.1177/10492080222148647

Bury, T. J., & Stokes, E. K. (2013). A global view of direct access and patient self- referral to physical therapy: Implications for the profession. *Physical Therapy*, *93*(4), 449–459. http://doi.org/10.2522/ptj.20120060

Cable, G. (2002). Income, race, and preventable hospitalizations: A small area analysis in New Jersey. *Journal of Health Care for the Poor and Underserved, 13*(1), 66-80. doi:10.1353/hpu.2010.0337

Ciolek, D. E., & W. Hwang. (2008). *Outpatient Therapy Alternative Payment Study 2 (OTAPS 2) Task Order; CY 2006 Outpatient Therapy Cap Report.* Computer Sciences Corporation

Commission on Accreditation In Physical Therapy Education. (2014). Evaluative Criteria PT Programs. Retrieved from http://www.capteonline.org/uploadedFiles/CAPTEorg/About_CAPTE/Resources/Accreditation_Handbook/EvaluativeCriteria_PT.pdf

Compare 50. (n.d.). Retrieved from http://www.compare50.org/chart/category/96/sub_category/503/display/518/chart/519/type/57/states/90,96

Cunningham, P. J. (1999). Managed care and physicians'
provision of charity care. *Jama, 281*(12), 1087.
doi:10.1001/jama.281.12.1087

DeNavas-Walt C, Proctor BD, Lee CH. (2006). Income, poverty,
and health insurance coverage in the United States: 2005. In:
Current Population Reports. US Department of Commerce.
Economics and Statistics Administration: 60-231.

DeNavas-Walt, C, Proctor B, Smith J. (2011). Income, poverty,
and health Insurance coverage in the United States: 2010. In:
Current Population Reports. US Census Bureau.

Dennis, J. K. (1987). Decisions made by physiotherapists: A
study of private practitioners in Victoria. *Australian Journal of
Physiotherapy, 33*(3), 181-191.
doi:10.1016/s00049514(14)60595-x

Donato, E. B. (2004). Practice analysis: Defining the clinical
practice of primary contact physical therapy. *Journal of
Orthopaedic and Sports Physical Therapy*
doi:10.2519/jospt.2004.1298

Durant TL, Lord LJ, Domholdt E. (1989). Outpatient views on
direct access to physical therapy in Indiana. *Physical Therapy*, 69:
850 – 857.

Earnest, M. P., Norris, J. M., Eberhardt, M. S., & Sands, G. H.
(1996). Report of the AAN task force on access to health care:
The effect of no personal health insurance on health care for
people with neurologic disorders. *Neurology, 46*(5), 1471-1471.
doi:10.1212/wnl.46.5.1471

Frank, E., Breyan, J., & Elon, L. K. (2003). Pro bono work and
nonmedical volunteerism among U.S. women physicians. *Journal
of Women's Health (15409996)*, *12*(6), 589.

Green, M. J. (1975). *The other government: The unseen power of Washington lawyers*. New York: Grossman.

Greenberg, E. (2012). Pro bono services: Overcoming ethical and legal dilemmas pro bono services: Overcoming ethical and legal dilemmas. *PT in Motion, 4*(6), Pg. 9.

Gross, M. L. (1997). Ethics and activism: The theory and practice of political morality. *Cambridge University Press*, Cambridge ch. 3.

Gross, M. L. (1999). Ethics education and physician morality. *Social Science Medicine (1982)*, *49*(3), 329–342

Haas, J. S., & Goldman, L. (1994). Acutely injured patients with trauma in Massachusetts: Differences in care and mortality, by insurance status. *American Journal of Public Health, 84*(10), 1605-1608. doi:10.2105/ajph.84.10.1605

Institute of Medicine. (2001). *Coverage Matters: Insurance and Health Care*. Washington, DC: The National Academies Press. doi:10.17226/10188.

James IJ, Staurt RB. (1975). Expanded role for the physical therapist: Screening musculoskeletal disorders. *Phys Ther*. 55: 121–132.

Johnson, M. P., & Abrams, S. L. (2005). Historical perspectives of autonomy within the medical profession: Considerations for 21st century physical therapy practice. *Journal of Orthopaedic & Sports Physical Therapy, 35*(10), 628-636. doi:10.2519/jospt.2005.35.10.628

Joyce J, Kupperstein J. (2005). Improving physical therapy referrals. *American Family Physician.* 72:11831184.

Kaye, J. S., & Lippman, J. (1999). *Report on the pro bono*

activities of the New York State Bar. Albany, NY: New York
State Unified Court System.

Kessler, T. A., & Alverson, E. (2003). Health concerns and
learning styles of underserved and uninsured clients at a nurse
managed center. *Journal of Community Health Nursing, 20*(2),
81-92. doi:10.1207/s15327655jchn2002_02

Mascarenhas A, Pathak D, Salsberry P. (2001). Association
between poor health care access and population characteristics.
The Center for Health Outcomes, Policy, and Evaluation Studies.
Columbus, OH: The Ohio State University.

McCallum, C. A. (2010). Access to physical therapy services
among medically underserved adults: A mixed-method study.
Physical Therapy, *90*(5), 735–747.
http://doi.org/10.2522/ptj.20090242

McCallum, C. A., & DiAngelis, T. (2012). Direct access: Factors
that affect physical therapist practice in the state of Ohio.
Physical Therapy, *92*(5), 688–706.
http://doi.org/10.2522/ptj20100358

McDavitt, S. (2006). The evolution of autonomous practice and
cision 2020. *PT: Magazine of Physical Therapy, 14*(5), 26, 28-32

Moffat M. (2003). The history of physical therapy practice in the
United States. *Journal Physical Therapy Education*, 17:15–25.

Neiland VM, Harris MJ. (2003). History of accreditation in
physical therapy education. *Journal Physical Therapy Education*,
17:52– 61.

Ojha, H. A., Snyder, R. S., & Davenport, T. E. (2014). Direct
access compared with referred physical therapy episodes of care:
A systematic review. *Physical Therapy*, *94*(1), 14–30.
http://doi.org/10.2522/ptj.20130096

Oxford Dictioanry. (2014). Pro Bono Publico.
Rhode, D. L. (2004). Access to justice. *Oxford: Oxford University Press*.

Rhode, D. L. (2005). Pro bono in principal and in practice. *Hamline Journal of Public Law & Policy*, *26*(2), 315–330.

Ricketts TC, Goldsmith LJ. (2005). Access in health services research: the battle of the frameworks. *Nursing Outlook*, 53:274 – 280.

Rundell, S. D., Goode, A. P., Friedly, J. L., Jarvik, J. G., Sullivan, S. D., & Bresnahan, B. W. (2015). Role of health services research in producing high-value rehabilitation care. *Physical Therapy*, *95*(12), 1703–1711. http://doi.org/10.2522/ptj.20150033

Sandstrom RW. (2007). The meanings of autonomy for physical therapy terratum in: *Physical Therapy*. 87: 98 –106.

Schoen, C., Doty, M., Collins, S., & Holmgren, A. (2005). Insured but not protected: How many adults are underinsured? *Health Affairs*. doi:10.1377/hlthaff.w5.289

Scott R. (2001). Pro bono health service delivery to the indigent: Legal and ethical issues. *Topics in Geriatric Rehabilitation*, 16(4): 45-49.

Scott R (1993). For the public good. *PT – Magazine of Physical Therapy*, 1(1):82-85.

Shoemaker, M. J. (2012). Direct consumer access to physical therapy in Michigan: Challenges to policy adoption. *Physical Therapy*, *92*(2), 236–250. http://doi.org/10.2522/ptj.20100421

Tavernise S. (2011). "*Soaring Poverty Casts Spotlight on 'Lost Decade'*" *New York Times*.

U.S. Bureau of Labor Statistics. (2016a). 23-1011 Lawyers.
Retrieved from http://www.bls.gov/oes/current/oes231011.htm

U.S. Bureau of Labor Statistics. (2016b). 29-1123 Physical
Therapists. Retrieved from
http://www.bls.gov/oes/current/oes291123.htm#st

World Confederation for Physical Therapy. (2011). Policy
statement: Description of physical therapy. London, UK: WCPT.

Tweenage Angst: Investigating the Content of Tween-Targeted Cartoons
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Tweenhood has become one of the sensitive and crucial periods in childhood. Due to their rapidly changing social environment, preadolescent children, commonly known as tweens, seek information from various external sources. One of the main sources includes television, including both reality sitcoms and cartoons. The purpose of this study was to investigate tween-targeted cartoons and their presentation of age-appropriate conflicts. Social interactions between characters and personality characteristics were also examined. The results indicated that the cartoon sample presented age-appropriate conflicts and themes regarding prosocial behavior, aggression, and general behavior. Social interactions between characters were gender-specific and more aggressive than cooperative. Gender stereotypes are portrayed in personality and physical characteristics although some portrayals were atypical. Future research should investigate both verbal and nonverbal cues of social interactions.

When observed from an adult's perspective, childhood contains some of the fondest moments in a person's lifetime. However, when observed from a child's perspective, childhood contains difficulties that exacerbate as a child ages. One of those areas of difficulty entails social interactions. Parent-based

interactions are the primary source of socialization, particularly early in children's lives. The entry into school greatly expands the children's social circles, which requires children to interact socially with unfamiliar adults and children of all ages (Li, Hestenes, & Wang, 2014). These social interactions often begin as forms of play, which enable children to develop critical social skills, such as cooperation and turn-taking while also aiding cognitive processing (Li et al., 2014). By early elementary school, children must adapt to changing environments and have learned to share and to consider the perspectives and emotional states of other children (Parker et al., 1995). This knowledge is apparent during social interactions between elementary-aged children as prosocial behaviors, such being emotionally supportive, are practiced. Sometimes, social interactions break down or communication fails and aggressive behaviors appear particularly towards individuals that are disliked. These aggressive behaviors may involve physical acts, like hitting, or verbal acts, like insults (Galliger, Tisak, & Tisak, 2008).

As children age, social interactions must adjust to accommodate the children's increasing knowledge, expanding environments, social circles, and individual preferences. Children become much more critical of themselves and others as life becomes more complex; the children are learning to navigate through a number of factors, such as increasing independence, friendships, family life, academics, and teacher-student relationships (Dubow & Tisak, 1989). These transitions can cause stress and conflict in older elementary-aged children, which can be exacerbated further upon the transition to middle school. Middle school adds more complexity to children's lives with the addition of multiple classes, different teachers per class, extracurricular activities, and an overall larger student body. This time frame between elementary and middle school is referred to as the "tween" years as the children are between the state of being a child and a teenager. While physical changes are occurring at vastly different rates during middle school, middle-school aged children must also contend with increased social pressure to present themselves as independent, social beings while also still

satisfying their peers (Harter, 2005). The social consequences of failing to successfully transition into middle school are often extreme, and may include exclusion or active rejections by fellow peers, which can ultimately cause psychological and behavioral issues in adolescence and young adulthood (Parker, Rubin, Price, & DeRosier, 1995)

Challenges of Development

"Tweenhood" is a very crucial and sensitive time period (Meyers, Fisher, & Marcoux, 2007). Developmentally, tweens undergo many physiological transformations while becoming increasingly more sensitive to their surroundings and other individuals' reactions (Boxer, Tobin-Richards, & Petersen, 1983). External sources and relationships also begin to increase in importance. Instead of relying solely on their parents, tweens begin to depend on other relationships, including friendships, for advice and guidance (Rose & Rudolph, 2006; Buhrmester, 1990).

Body development. One of the most momentous hallmarks of tweenhood is puberty. The onset of puberty varies between sexes. Girls usually begin puberty around 11-13 years while boys begin around 13-15 years. Physiological characteristics of puberty include the start of menarche and breast development for girls and sperm production and the appearance of facial hair for boys. These reproductive changes are preceded by growth spurts and the production of pubic hair about two years before full puberty onset for both sexes (Marshall & Tanner, 1969; Marshall & Tanner, 1970). Recently, both sexes have experienced developmental trends of earlier onsets for puberty, with girls still experiencing puberty about two years earlier than boys. This earlier puberty onset is associated with other psychological, emotional, and social consequences as girls as young as nine years are experiencing changes to their bodies that are difficult to understand and regulate.

Cognitive interpretations. As children age, their cognitive abilities develop as well, which allows children to perform more complex skills and abstract thinking. During elementary school, children move from thinking about things in the here and now (concrete operations) to abstract, hypothetical

thinking characterized by deductive reasoning (formal operations). However, one of the most significant cognitive advancements is self-identity. Unlike their early elementary counterparts, middle school-aged children are more likely to list personal characteristics first rather than physical characteristics ("I am shy and tall.") (Harter, 2005). Middle school-aged children are also more self-aware and understand their actions can harm other individuals. This new level of self-awareness is aided by the presence of a more concrete conscience. The conscience not only aids children in making decisions, but also helps them understand their overall environment and interactions that are present (Passanisi, Sapienza, Budello, & Giaimo, 2015). This conscience allows tweens to interpret external messages from sources such as the media and peers more thoroughly while also enabling the tweens to discriminate between acceptable and unacceptable outcomes (Kaestle, Halpern, & Brown, 2007).

Friendships. Middle school tends to be an intimidating environment for preadolescent-aged children. From disparate physical appearances to new academic challenges to more competition with larger numbers of peers, children entering middle school begin to rely significantly more on external relationships, such as friendships, for emotional and social support as opposed to their parents or siblings. This support is sought ought during novel experiences, such as transitioning from elementary school to middle school or even undergoing puberty. Children entering middle school are also more likely to increase their levels of friendship expectation to compensate with the novel environment. This increase of friendship expectation has been linked to higher friendship satisfaction and higher adjustability, which makes transitioning into novel environments easier for children of this age group (MacEvoy, Papadakis, Fedigan, & Ash, 2016). In terms of puberty, friendships are a sources of comfort and support for many children although studies have shown gender differences in these preferences. Girls prefer to experience puberty at the same time as their friends. Boys, on the other hand, prefer to undergo puberty earlier than their friends (Boxer, Tobin-Richards, & Petersen, 1983).

Parent relationships. While friendships begin to increase in importance to tweens, parent-child relationships also undergo changes. As tweens begin to exhibit more behaviors that require confrontation and resolution from their parents, the relationship between parents and tweens may encounter difficulties. These relationships are more likely to increase in conflict and decline in resolution (Paikoff & Brooks-Gunn, 1991). Marital love and satisfaction between parents are also challenged during puberty. In their study, Whiteman, McHale, and Crouter (2007) interviewed families for over seven years to determine if first-born children's pubertal development could affect marital love and satisfaction. It was concluded that marital love and satisfaction between parents has been shown to decline during a child's puberty transitional period, especially with firstborn children. However, this decrease in marital love and satisfaction was shown to increase during pubertal development of second born children.

Cultivation Theory

According to cultivation theory (Gerbner, 1967, as cited in Potter, 2014), mass media can affect people's perspectives of reality, especially for those people who encounter media-based symbolic messages frequently. Television is one of the most powerful channels of the cultivation theory with people who are heavy television viewers being more likely to interpret reality differently than people who watched fewer or almost no hours of television. Specific viewers, such as children, are more likely to be influenced by television as they do not have the knowledge or experience with discriminating between reality and fantasy or the skills to think critically about what is being viewed.

History of Cartoons

The animated cartoon is one of the most iconic genres of American media. Cultural icons such as Bugs Bunny and Mickey Mouse were created to reflect American society ideals (Abel, 1995). Such cartoons first targeted all-male audiences, which was related to cartoon characters portraying stereotypical male behaviors and traits like independence, strength, athleticism, and assertiveness (Abel, 1995). Main characters were often

exclusively male, while female characters were either nonexistent or portrayed in a submissive manner (Abel, 1995; Thompson & Zerbinos, 1995). Female characters were sometimes partnered with a male counterpart, such as Daffy Duck and Daisy Duck (Abel, 1995). Appearances were also designed to be gender appropriate. In cartoons from the 1930s to the 1950s, female characters were more likely to be shown as an underweight character compared to male characters (Klein & Shiffman, 2005). Female cartoon characters were also more likely to be portrayed with qualities such as shyness, dependence, and unintelligent (Ogletree, Martinez, Turner, & Mason, 2004; Thompson & Zerbinos, 1995).

Aggression portrayal has also been prevalent in cartoons since the 1930s. Previous research regarding cartoon violence in classic cartoons (e.g., Bugs Bunny) found violent behavior, such as hitting and punching, to occur frequently (Klein & Shiffman, 2008). Indirect aggression has been portrayed in animated films, such as Disney's *Aladdin* and *Cinderella* (Coyne & Whitehead, 2008). Moreover, a majority of violent acts committed by cartoons characters exclude any type of consequence (Klein & Shiffman, 2008). Male characters were more likely to commit and be the victims of violent acts (Klein & Shiffman, 2008; Ogletree, Martinez, Turner, & Mason, 2004).

Cartoons Today

After 1980 there was a shift in the production of cartoons. In regards to gender-stereotypes, female characters began to exemplify more masculine characteristics, such as independence, assertiveness, and being helpful (Thompson & Zerbinos, 1995). For example, Disney's iconic princess/heroine Pocahontas has been known to present both masculine and feminine characteristics. During the film, Pocahontas was shown to portray several male-stereotyped characteristics, like rescuing her male love interest (Dundes, 2001). Overall, instead of restricting female characters, cartoon programming began to produce content that contained significantly more female characters (Thompson & Zerbinos, 1995).

The targeted audience of cartoons has also changed. Instead of focused on solely male audiences, cartoons today are driven by the age of their targeted audience. For example, cartoons that target preschool-aged children tend to present content that is educational, such as Nickelodeon's program *Dora the Explorer* and *Blue's Clues* (Kirkorian, Wartella, & Anderson, 2008). Cartoons have even been produced for adults, however, these cartoons appear to be purely for entertainment or also political purposes. (Telotte, 2015; Katz, 2013)

Effects of Cartoons on Audience

Cartoons introduce many gender-stereotyped behaviors to children. Previous research has shown gender difference in gender-targeted cartoons. For example, cartoons that target girls present more emotional and romantic content while cartoons that target boys present aggressive and independent content (Kirsh, 2006). This presentation of gender-typed roles and behaviors pressures children to behave in a gender-appropriate manner (Gökçearsla, 2010).

Violent media has been shown to affect viewers across several aspects. Neurologically, exposure to violent content has been shown to decrease frontal lobe activation, especially in aggressive adolescents (Matthew et al., 2005). Behaviorally, violent media has shown to affect viewers' behavior by causing them to imitate violent behaviors or even become desensitized to violent content (Kirsh, 2006). The chances of imitating violent behavior increases significantly if environment is shown to reinforce the behavior or not punish the violent behavior (Bandura, 1965)

Present Study

Due to the recent emergence of the tween group, marketing companies financially target this age group (Aaker, Brumbaugh, & Grier, 2000). Tween-appealing merchandise is themed for current popular content, including television culture products. In the last 10 years, tween-appealing media has developed into reality-based television programs, such as *Wizards of Waverly Place* and *Hannah Montana* (both Disney Channel). These reality-based television programs grew in popularity due to

tweens being able to relate to characters across similar shows produced (e.g., *Good Luck Charlie*-Disney*, iCarly* and *The Thundermans* - Nickelodeon). While gender roles still exist in some television programs, these tween-targeted programs are more likely to present a greater number of female characters that portray atypical gender stereotypes (Gerding & Signorelli, 2014).

In addition to the reality-based sitcoms targeting tweens, cartoons are also being directed at the tween age group. However, less is known about the content of these tween-oriented cartoons. Do these cartoons present age-appropriate content with regard to conflicts and problems experienced by the characters and the characteristics and activities of male and female characters? Due to this significant lack of information, the current study was conducted to examine cartoons that target tween audiences. The purpose of this study was to investigate tween-targeted cartoons and their presentation (or lack) of topics and issues that are experienced by children in this age group. Primarily, we were interested in topics and issues that were related to any tween-related conflicts, such as puberty, friendships, and social interactions with others (Meyers, Fisher, & Marcoux, 2007). In addition, we were also interested in social interactions between main characters. Some of the social interactions of interest included socially cooperative behaviors and socially aggressive behaviors. The primary questions of this study examined were as follows:

1. Do tween-targeted cartoons present age-appropriate conflicts or themes?
2. Do these cartoons present more socially interactive behaviors or socially aggressive behaviors?
3. Are socially aggressive behaviors punished or reinforced?
4. Is socially aggressive behavior targeted towards members of the same gender?
5. Are there sex differences in personality characteristics or physical characteristics?

Method

Sample

A total of six different series of cartoons were selected for the sample: *Adventure Time* (2010), *Bratz* (2005), *Monster High* (2010), *Pokémon* (1996), *Teen Titans Go!* (2013) and *Steven Universe* (2013). Cartoons were selected based on whether they were aired on cable television in the past 10 years and if they targeted children between 8 – 12 years of age. A total of four episodes were selected randomly across all produced seasons – one episode from the first season, two episodes from middle seasons, and one from the most recent season. This selection process resulted in a total of 24 episodes to represent the tween-targeted cartoons (Table 1).

Table 1

Cartoons and Relevant Descriptive Information

Cartoons	Plot Description	Episodes Selected
Adventure Time	Human character Finn and his canine best friend Jake go on adventures in the mystical Land of Ooo.	S1, Ep. 1; S2, Ep. 26; S4, Ep. 12; S6, Ep. 37
Bratz	Four friends show how their "passion for fashion" can help solve daily problems.	S1, Ep1; S1 Ep.11, S1, Ep14; S1 Ep.23
Monster High	Group of high school friends with monster traits.	Television special Ep.1, Television special Ep.2, and Monster High Volume 1

Pokémon	Adventures of young Pokémon trainer, Ash Ketchum, and his Pokémon pal, Pikachu.	S2, Ep. 28; S10, Ep, 19; S17, Ep. 18; S
Teen Titans Go!	Teenage superheroes roommates who fight crime at night and have fun during the day.	S1, Ep. 1; S2, Ep. 14; S2, Ep. 21; S3, Ep. 2
Steven Universe	A young boy must learn how to control his powers in order to take his mother's place with a group of super heroines.	S1, Ep.1; S2, Ep.7; S2, Ep.21; S3, Ep.6

Measures

The primary interest of the study was the presentation of age-appropriate themes and social interactions in cartoons that target the tween age group. Themes examined included aggression, prosocial behaviors, attitude, morality, general social behaviors, sexual undertones, and self-appearance and were coded for frequency across cartoons. Characters were categorized as either major or minor characters based on criteria from Klein and Shiffman (2008). Social interactions between characters were coded as either socially cooperative behavior or socially aggressive behavior, using previous research as a guide (Behm-Morawitz & Mastro, 2008). Socially cooperative behavior included characters helping others, responding in a calm, non-aggressive tone, providing emotional support, and teamwork. Socially aggressive behavior included characters excluding others, being physically or verbally aggressive towards another character, bullying, and humiliating others. Frequency and duration for socially cooperative and socially aggressive behaviors were recorded. Demographic variables such as gender,

age, ethnicity, and occupation were recorded. The character that initiated action was recorded in addition to the action itself, the receiving character's reaction, and whether or not a consequence was presented. If a consequence was presented, it was coded as either a punishment (i.e., the consequence should have produced a reduction in the displayed behavior) or reinforcement (i.e., the consequence should have produced an increase in the displayed behavior). Personality traits were recorded for each character adapted from Thomson and Zerbinos (1995). Twenty traits were coded on a 4-point scale and included variables such as dominance, femininity, sensitivity, or needing help. Character clothing was also recorded and categorized as either simple and revealing. If clothing was categorized as revealing, then certain characteristics such as short dress/skirt, and if top was tight, low-cut, both, or neither.

Procedure

Cartoon episodes were collected and watched using various affiliated websites (e.g., Hulu, Nickelodeon, and Cartoon Network). Episodes were watched two to three times to assure all valid data was recorded thoroughly. Data manipulation involved categorizing data based on character name, gender, the occurrence of socially cooperative behavior and socially aggressive behavior, action, characters involved, their sex, and whether or not the action was punished or reinforced. A chi-square test of independence was also used to examine the difference between socially cooperative behaviors and socially aggressive behaviors. A MANOVA was used to examine gender differences in personality and appearance characteristics in the sample's major characters.

Results

General Results

A total of 2,576 seconds of cartoons were coded. Overall, there were a total of 54 cartoon characters in the sample. There were 19 male characters and 35 female characters. Out of the 54 characters, 23 were major characters. Of the 23 major characters, 70% were female and 30% were male. Of these characters, 30% were Caucasian, 9% were African American, 4% were Hispanic,

9% were Asian, and 48% were categorized as other. Ages of major characters included 65.2% as teens, 13% as adults, and 21.77% were unknown. Occupations for major characters included 13% superhero, 21.77% as superheroines, and 65.2% as other.

Presented Conflicts and Moral Themes

Frequency for conflicts were coded and categorized into seven categories – aggression, prosocial, attitude, morality, general social behavior, sexual, and self-appearance. Overall percentages of themes included 44% aggression, 38% prosocial, 10% attitude, 3% morality, 3% general social behavior, 2% sexual undertone, and 0.2% self-appearance. Categories also included subcategories that included conflicts such as aggression, apologizing, appearance-related issues, bossiness, compliance, compliment, conflicts, conscience, cooperation, cooperation behavior, dating, demanding, emotional support, forgiveness, friendly, gift-giving, gossip, guidance, help others, honesty, inappropriate behavior, insulting others, joking, lying, lying to keep a secret, manners, physical aggression, pinky-swear, play games, rude, sarcasm, sass, service, and sexual conduct.

Social Interactive Behaviors and Sex of Character

There were a total of 435 social interactions. Social interactions between sexes was examined using a chi-square test of independence. Results indicated that social interactions were targeted towards members of the same sex, $\chi^2(4, N = 435) = 40.758, p < .05, V = .216$. Male-initiated interactions towards other male characters (38.6%, $n = 68$) occurred significantly more than male-initiated interactions towards female characters (25.6%, $n = 57$). Female-initiated interactions towards female characters (74.4%, $n = 166$) occurred significantly more than female-initiated interactions towards male characters (60.8%. $n = 107$). A chi-square test of independence was also performed in order to examine if these socially aggressive behaviors were punished. Our results indicated that 56% of socially aggressive behaviors were neither punished nor reinforced, 33.9% were punished, and 19.8% were reinforced, $\chi^2(2, N = 435) = 100.336, p < .05, V = .480$.

Personality and Appearance Characteristics

A MANOVA was used to examine sex differences in personality characteristic in the major characters ($n = 23$). While there was not a significant interaction overall, sex differences were observed for a number of physical and personality characteristics. Female characters scored significantly higher on feminine-coded traits, such as importance of appearance, warmness, sensitivity, affection, attractive, and femininity. Male characters scored significantly higher on masculine-coded traits, such as bravery, and aggression. There were no sex differences for dominance, in need of rescue, leadership, crying, warmness, independence, honesty, assertive, intelligence, emotionality, toughness, responsibility, and technical. Interestingly, female characters were rated as more creative than male characters.

Several chi-square tests of independence were performed to examine the relationship between sex of the main character and appearance characteristics. These characteristics included body type, physical strength, simple or revealing clothing, and types of revealing clothing (short skirt/dress; tight, low-cut, or midriff bearing tops). There was no significant sex relationship in body type, physical strength, and types of revealing clothing (skirt/dress and top). However, there was a significant relationship between sex and clothing. Results indicated that major female characters were more likely to wear revealing clothing than major male characters, $\chi^2 (1, N = 23) = 13.081$, $p = .05$, $V = .754$. Only 18.8% of major female characters wore simple clothing while 81.3% of major female characters wore revealing clothing. All major male characters wore simple clothing. There was no significant relationship in sex and types of revealing tops, although, there was a significant relationship in sex and types of revealing skirts/dresses, $\chi^2(1, N = 23) = 9.224$, $p = .05$, $V = .633$. Results indicated that revealing skirts/dresses were more likely to be worn by major female characters instead of simple skirts/dresses with a total of 68.8% of major female characters wearing revealing skirts/dresses. Simple skirts/dresses were worn by 31.3% of major female characters.

Table 2
Male and Female Personality Comparisons in Major Characters

Personality Characteristic	Male	Female	F	p
Bravery**	3.286	2.568	4.345	**.050**
Dominance**	3.286	2.568	2.758	.112
Rescue**	3.500	2.984	1.602	.220
Creativity**	2.071	3.047	5.101	**.035**
Affection*	1.893	2.880	5.899	**.024**
Importance of Appearance*	1.321	2.979	8.844	**.007**
Excited in Crisis**	1.572	2.755	9.313	**.006**
Leader**	2.786	2.453	0.502	.486
Crying*	2.900	3.104	0.075	.787
Aggression**	3.286	2.000	8.676	**.008**
Warmness*	2.210	3.000	2.105	.162
Independence**	3.250	2.870	0.901	.353
Honesty**	3.643	3.682	0.036	.854
Assertion**	3.286	2.615	2.633	.120
Intelligence**	1.929	2.193	0.364	.553
Emotional*	3.036	2.755	3.224	.087
Attractive*	1.929	3.156	6.103	**.022**
Sensitivity*	1.464	2.734	7.757	**.011**
Toughness**	3.286	2.635	2.399	.136
Responsibility**	2.071	2.635	1.849	.188
Technical**	2.321	1.505	4.024	.058
Masculine – Feminine*	1.679	3.510	27.814	**.001**

Note. *Higher numbers represent more feminine. **Higher numbers represent more masculine.

Discussion

The purpose of the study was to examine the content of cartoons that target the tween audience as this arena has yet to be explored. Primarily, this study investigated the presentation of conflicts or themes and whether or not they were age-appropriate. We were also interested in investigating social interactions between characters and the personality and appearance characteristics of major characters. The results indicated that social interactions between both major and minor characters contained significantly more socially aggressive behaviors than socially cooperative behaviors. There were also significant sex differences in regards to gender of receiving character and gender

of initiating character. These results support previous literature regarding cartoon violent behaviors and interactions, such as Thomson and Zerbinos (1995) cartoon study.

Social Interactive Behaviors and Sex of Character

Social interactions between characters were found to contain more socially aggressive behaviors than socially cooperative behaviors, which has been consistent with other studies (Coyne & Whitehead, 2008; Klein & Shiffman, 2008). In our study, sex differences were found to occur between sex of receiver and sex of initiator, specifically occurring between members of the same sex. Females were more likely to target interactions towards other female characters while males were more likely to target interactions towards other male characters. Socially aggressive behaviors such as physical and verbal aggression were more likely to not receive any consequence. These results are consistent with Klein and Shiffman (2008), who found aggressive behaviors to experience no type of consequence more than half of time.

Presented Conflicts and Moral Themes

From a descriptive view, our sample presented a number of age-appropriate conflicts. Some of these age-appropriate themes included the use of aggression to resolve conflicts (e.g., hitting, insults, gossiping, and backstabbing), the presence of prosocial behaviors to communicate intentions or to be nice to others (e.g., being polite, giving gifts, helping others to solve problems, being sensitive to others' emotional states), and some appearance-related behaviors. However, themes and subthemes regarding specific tweenhood conflicts, such as puberty, were not presented in the sample. It is unclear if these age-appropriate issues were not of interest to tweens when viewing these cartoons so they were not addressed by the cartoon producers or perhaps tweens would rather not watch reality and would rather view an idealized representation of their age groups.

Personality and Appearance Characteristics

Personality characteristics were present in major characters. Females were more likely to be portrayed as attractive and feminine with high levels of affection, sensitivity, creativity,

and excitability in a crisis. These results are supported by a study conducted by Gerding and Signoreilli (2014) in which female characters in reality-based programs also behaved with female-stereotyped behaviors, such as primping and caring more about their overall appearances. The male characters in the current study also displayed stereotypical masculine characteristics, such as higher levels of aggression and bravery, much like previous research had found in action-oriented programs (Gerding & Signoreilli, 2014). Interestingly, male characters also displayed some feminine characteristics such as warmth and being responsible.

Limitations

One of the main limitations in this study was the range in video length for each cartoon. Each episode ranged from 10 minutes to about 40 minutes. While some cartoon length times remained fairly consistent, certain cartoons such as *Bratz*, *Pokémon*, and *Monster High* ranged drastically longer than the remaining cartoons. One obstacle encountered was *Monster High* and its inconsistent show time. Due to its purpose as a web-based cartoon, *Monster High* lacked the production of seasons and episodes longer than 3 minutes on their affiliated website. Instead, that were shown on television were produced as movie length episodes, which were significantly longer in episode length when compared to the rest of the cartoon sample. Due to this obstacle, we choose episodes that were aired on Nickelodeon as television specials. Another limitation of this study was the lack of reliability. Due to only one coder, it is possible some behaviors, including non-verbal behaviors, could have been missed.

Future Research

Overall, we found these cartoons to present an adequate amount of age-appropriate conflicts, such as helping others and school-related problems. However, some of these conflicts were either greatly exaggerated or acted by characters who are different in age. Social interactions were found to be expressed more aggressively than cooperatively. Future research should further investigate cartoons and their presentations of age-appropriate

conflicts for various age groups. While our study investigated content, it is important to consider how these cartoons are affecting their viewers. Television is often introduced at an early age and it is important for parents to understand what content is being presented in front of their children. In addition to the verbal content and obvious actions of cartoon characters, future research should also investigate non-verbal cues of socially cooperative and socially aggressive behaviors.

References

Aaker, J.L., Brumbaugh, A.M., Grier, S.A. (2000). Nontarget
    markets and viewer distinctiveness: The impact of target
    marketing on advertising attitudes. *Journal of Consumer
    Psychology, 9,* 127-140. doi:
    10.1207/S15327663JCP0903_1

Abel, S. (1995). The rabbit in drag: Camp and gender
    construction in the American animated cartoon. *Journal of
    Popular Culture, 29,* 183-202. Retrieved from
    http://web.a.ebscohost.com/ehost/pdfviewer/pdfviewer?vi
    d=3&sid=aa9f7fbd-86b1-4bae-91ce-
    12a14f782f4c%40sessionmgr4003&hid=4109

Bandura, A. (1965). Influence of models' reinforcement
    contingencies on the acquisition of imitative responses'.
    Journal of Personality and Social Psychology, 6, 589-595.
    Retrieved from http://psychology.beauchamp.org.uk/wp-
    content/uploads/2014/01/banduras-study.pdf

Behm-Morawitz, E. & Mastro, D. E. (2008). Mean girls? The
    influence of gender portrayals in teen movies on emerging
    adults' gender-based attitudes and beliefs. *Journalism &
    Mass Communication Quarterly, 85,* 131-146. Retrieved
    from jmq.sagepub.com

Buscarino, J. (2013). *Steven universe* (Television series). Van
    Nuys: MGA Entertainment.

Bristow, B. (2011). *Monster High* (Television series). El Segundi,
    CA: Mattel Playground Producitons.

Coyne, S.M., & Whitehead, E. (2008). Indirect aggression in
    animated Disney films. *Journal of Communication, 58,*
    382-395. doi: 10.1111/j.1460-2466.2008.00390.x

Dubow, E. F., & Tisak, J. (1989). The relation between stressful life events and adjustment in elementary school children: The role of social support and social problem-solving skills. *Child development*, 1412-1423. doi: 10.2307/1130931

Fassett, M. (2005). *Bratz* (Television series). Van Nuys: MGA Entertainment.

Gökçearslan, A. (2010). The effect of cartoon movies on children's gender development. *Procedia Social and Behavioral Sciences 2,* 5202-5207

Gerding, A. & Signorielli, N. (2014) Gender roles in tween television programming: A content analysis of two genres. *Sex Roles, 70,* 43-56. doi: 10.1007/s11199-013 0330-z

Harter, S. (2005). Self-concepts and self-esteem, children and adolescents. In C.B. Fisher & R.M. Lerner (Eds.), *Encyclopedia of applied developmental science*. (Vol. 2, pp.972-977) Thousand Oaks, CA: Sage.

Horvath, A. (Producer). (2013). *Teen titans go!* (Televisions series). Burbank, CA: Cartoon Network Studios.

Kaestle, C. E., Halpern, C.T., & Brown, J.D. (2007). Music videos, pro wrestling, and Acceptance of date rape among middle school males and females: An exploratory analysis. *Journal of Adolescent Heath, 40,* 185-187. doi:10.1016/j.jadohealth.2006.08.010

Katz, M.B. (2013). The de-politicization of Israeli political cartoons. *Israel Studies, 18*, 1-30. doi: 0.2979/israelstudies.18.1.1

Klein, H. & Shiffman, K. (2005). Thin is "in" and stout is "out": What animated cartoons tell viewers about body weight.

Eating and Weight Disorders, 10. 107-116. Retrieved
from
http://web.b.ebscohost.com/ehost/detail/detail?vid=3&sid
=71b83344-dde3-4e02-883b-
4f71fdfe9f81%40sessionmgr107&hid=102&bdata=JnNpd
GU9ZWhvc3QtbGl2ZSZzY29wZT1zaXRl#db=psyh&AN
=2005-08317-006

Kirsh, S.J. (2006). Cartoon violence and aggression in youth.
Aggression and Violent Behavior, 11, 547-557. doi:
10.1016/j.avb.2005.10.002

Klein, H. & Shiffman, K. (2006). Messages about physical
attractiveness in cartoons. *Body Image, 3,* 353-363. doi:
10.1016/j.avb.2005.10.002

Klein, H. & Shiffman, K. (2008). What animated cartoons tell
viewers about assault. *Journal of Aggression and Trauma,
16,* 181-201. doi: 10.1080/10926770801921568

Li, J., Hestenes, L. L., & Wang, Y. C. (2016). Links between
preschool children's social skills and observed pretend
play in outdoor childcare environments. *Early Childhood
Education Journal*, *44*, 61-68. doi: 10.1007/s10643-014-
0673-2

Marshall, W.A., & Tanner, J.M. (1969). Variations in pattern of
pubertal changes in girls. *Arch Dis Child, 44,* 291-303.
doi: 10.1136/adc.44.235.291

Marshall, W.A., & Tanner, J.M. (1970). Variations in pattern of
pubertal changes in boys. *Arch Dis Child, 45,* 13-23. doi:
10.1136/adc.45.239.13

Mathews, V. P., Kronenberger, W. G., Wang, Y., Lurito, J. T.,
Lowe, M. J., & Dunn, D. W. (2005). Media violence
exposure and frontal lobe activation measured by

functional magnetic resonance imaging in aggressive and
nonaggressive adolescents. *Journal of Computer Assisted
Tomography, 29*, 287-292. doi:
10.1097/01.rct.0000162822.46958.33.

Meyers, E.M, Fisher, K.E, & Marcoux, E. (2007) Studying
the everyday information behavior of tweens: Notes
from the field. *Library & Information Science
Research, 29,* 310-331. doi:
10.1016/j.lisr.2007.04.011

Ogletree, S.M., Martinez, C.N., Turner, T.R., & Mason, B.
(2004). Pokémon: Exploring the role of gender. *Sex Roles,
50*, 851-859. doi:10.1023/B:SERS.0000029102.66384.a2

Paikoff , R. L & Brooks-Gunn, J. (1991) Do parent-child
relationships change during puberty? *Psychological
Bulletin, 110,* 47-66. Retrieved from

Parker, J. G., Rubin, K. H., Price, J., & DeRosier, E. (1995). Peer
relationships, child development, and adjustment: A
developmental psychopathy perspective. In D. Cicchetti &
E. Cohen (Eds), *Developmental Psychopathy. Vol 2: Risk,
disorder, and adaptation* (pp. 96-161). New York: Wiley.

Passanisi, A., Sapienza, I., Budello, S., Giaimo, F. (2015). The
relationship between guilt, shame and self-efficacy beliefs
in middle school students. *Procedia- Social and
Behavioral Sciences, 197,* 1013–1017. doi:
10.1016/j.sbspro.2015.07.295

Potter, W.J. (2014). A critical analysis of cultivation theory.
Journal of Communication, 64, 1015-1036. doi:
doi:10.1111/jcom.12128

Rose, A.J., & Rudolph, K.D. (2006) A review of sex differences
in in peer relationship processes: Potential trade-offs for

the emotional and behavioral development of boys and girls. *Psychological Bulletin, 132,* 98-131. doi: 10.1037/0033-2909.132.1.98

Telotte, J.P. (2015). Animation, modernism, and the science fiction imagination. *Science Fiction Studies, 42*, 417-432. doi: 10.5621/sciefictstud.42.3.0417

Thompson, T.L. & Zerbinos, E. (1995). Gender roles in animated cartoons: How the picture changed in 20 years? *Sex Roles, 32,* 651-673. Retrieved from http://www.wstudies.pitt.edu/wiki/images/0/06/gender_rol es_in_animated_cartoons_has_the_picture_changed_in_2 0_years.pdf

Ward, P. (Producer). (2010). *Adventure time* (Television series). Burbank, CA: Cartoon Network Studios.

Werenko, T. (1996). *Pokémon* (Television series). New York, NY: 4Kids Entertainment.

Whiteman, S.D., McHale, S.M., & Crouter, C. (2007). Longitudinal changes in marital relationships: The role of offspring's pubertal development. *Journal of Marriage and Family, 69,* 1005 – 1020. Retrieved from http://www.jstor.org/stable/4622504?seq=1&cid=pdf-reference#references_tab_contents