

2009

2009- 2010 UNLV McNair Journal

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BIOGRAPHY OF

DR. RONALD E. MCNAIR

HE OVERCAME OBSTACLES.

Dr. Ronald Erwin McNair, Physicist & Astronaut, dared to dream. As an African-American growing up in a poor community in the South, he encountered discrimination early in his youth. Yet this did not stop him from pursuing his dream of becoming a scientist.

HE ACHIEVED ACADEMIC EXCELLENCE.

In 1971, he graduated magna cum laude from North Carolina AT&T State University with a B.S. degree in physics. Ronald McNair then enrolled in the Massachusetts Institute of Technology. In 1976, at the age of 26, he earned his Ph.D. degree in laser physics.

HE BECAME A LEADER IN HIS FIELD.

Dr. McNair soon became a recognized expert in laser physics while working as a staff physicist with Hughes Research Laboratory. He was selected by NASA for the space shuttle program in 1978 and was a mission specialist aboard the 1984 flight of the shuttle Challenger.

HE WAS RESPECTED AND COMMENDED.

For his achievements, Ronald McNair received three honorary doctorate degrees and many fellowships and commendations. These distinctions include: Presidential Scholar, 1967-71; Ford Foundation Fellow, 1971-74; National Fellowship Fund Fellow, 1974-75; Omega Psi Phi Scholar of the Year, 1975; Distinguished National Scientist, National Society of Black Professional Engineers, 1979; and the Friend of Freedom Award, 1981.



HE EXCELLED IN MANY ASPECTS OF LIFE.

Ronald McNair also held a fifth degree black belt in karate and was an accomplished jazz saxophonist. He was married and was the dedicated father of a daughter and a son.

After his death in the Challenger explosion in January 1986, members of Congress provided funding for the Ronald E. McNair Post-Baccalaureate Achievement Program to encourage college students with similar backgrounds to Dr. McNair to enroll in graduate studies. Thus, the program targets students of color and low-income, first-generation college students. This program is dedicated to the high standards of achievement inspired by Dr. McNair's life.

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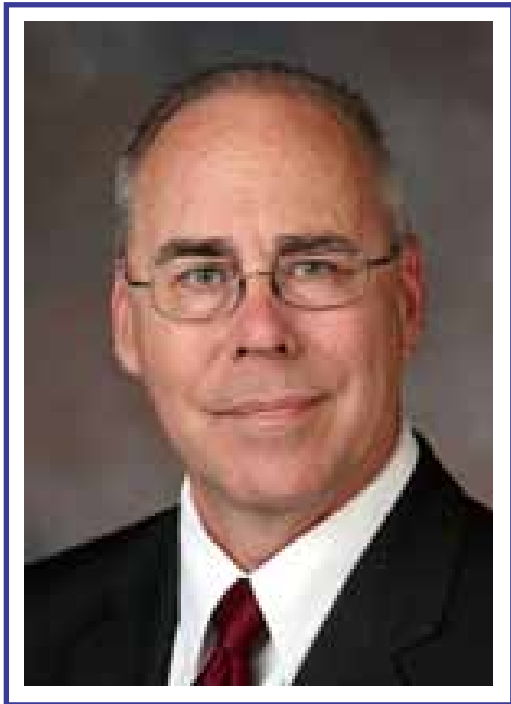
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UNLV PRESIDENT

DR. NEAL J. SMATRESK

I hope you will enjoy reading the fifth edition of the UNLV McNair Scholars Journal. This journal exemplifies the quality and rigor of scholarly research conducted by our undergraduate students in the McNair Scholars program and reflects the mentoring and commitment to student success provided by our outstanding and dedicated faculty. Each article represents countless hours of research, experimentation, and analysis; the authors are the intuitive and discerning students who we anticipate will be at the top of their respective fields in the future.

The UNLV McNair Scholars Institute provides a unique opportunity for several of the most talented undergraduate students at UNLV to work with some of our extraordinary faculty in order to learn about how to design, implement, and report research. During this process students are provided with a foundation for conducting research that will hopefully stimulate a desire for continuing their education with graduate studies and lead them on a path towards becoming a future professor. This student and faculty collaboration characterizes the interactive and rewarding learning experiences available to our students.

We are honored to have these talented students and dedicated faculty at our university and we are proud to share this publication as a testament to their outstanding work. The research reported in this journal exemplifies the scholarly studies conducted by our undergraduate students and reflects the quality of mentoring and commitment to student success provided by our outstanding and dedicated faculty.

A handwritten signature in black ink, appearing to read 'Neal J. Smatresk', with a stylized flourish extending to the right.

Neal J. Smatresk
President



VICE PRESIDENT OF STUDENT AFFAIRS

DR. JUANITA P. FAIN

The UNLV McNair Scholars Program personifies the mission of our Division of Student Affairs. Our mission is to provide quality services and programs that create educational opportunities, foster collegiate success, enhance continuous learning and promote a just and inclusive campus.

Within a broader context, UNLV seeks to create a campus environment that promotes the performance of superior research and scholarly endeavors at all levels of study. A unique framework to engage under-represented undergraduate and graduate students in exciting and enriching research opportunities is provided by the McNair Scholars Program. This fifth publication of UNLV's McNair Scholars Journal is an affirmation and amplification of those endeavors and accomplishments.

Perhaps the most important aspect of the McNair Scholars Program is that of relationship between the faculty mentor and scholar. For the scholar, the benefit of participating in the program depends to a large extent on this relationship. The relationship is designed to encourage, motivate and prepare McNair scholars for doctoral studies. Based on the research reported in this journal, the program has been a resounding success. It provides an undeniable testament to the hard work and commitment of the students and their faculty mentors.

I extend my sincere commendations and congratulations to the McNair scholars, faculty mentors, program staff, and the Center for Academic Enrichment and Outreach for a job well done. This edition of the UNLV McNair Scholars Journal is a fine tribute to their success.

ASSOCIATE VICE PRESIDENT FOR RETENTION AND OUTREACH AND EXECUTIVE DIRECTOR



DR. WILLIAM W. SULLIVAN

This fifth publication of UNLV's McNair Scholars Journal is the culmination of extremely hard work by many talented and dedicated individuals. The triumphs of the McNair Scholars and the commitment of their faculty mentors are highlighted within these pages and are exemplary examples of the academic excellence at UNLV.

Over 30 years ago I began my career in higher education, working with high school and college officials to attract young minority students towards postsecondary education; at the time, few universities employed faculty members who could personally identify with the economic and/or social backgrounds of disadvantaged students. There was an urgent need to diversify the ranks of college faculty in order to create academic environments where nontraditional and under-represented students could succeed.

To meet this need, the U.S. Department of Education established the Ronald E. McNair Post Baccalaureate Program. Named for one of the astronauts who perished in the 1986 Challenger explosion, the McNair Program sought to prepare a cadre of underrepresented college students to become university professors and role models for others from similar backgrounds. Since its inception, McNair has become the most prestigious federal education program, helping to diversify the faculties at universities and colleges across the country. It is an honor for the Center for Academic Enrichment and Outreach to host UNLV's McNair Program.

I commend the McNair scholars and their mentors for their hard work and dedication. These scholars displayed outstanding academic excellence in conducting their research; I have no doubt they will develop into topnotch educators. I also applaud President Neal Smatresk, Vice President Juanita Fain, Deputy Executive Director Keith Rogers, the Graduate College, and many other university units for their resolute support of the McNair Program. This journal, displaying the fruit of the McNair Scholars toil, reinforces our legacy and continues a tradition of excellence for future scholars.

DEPUTY EXECUTIVE DIRECTOR

MR. KEITH ROGERS



It gives me immense pride to recognize the inimitable research profiled in the fifth UNLV McNair Scholars Institute Journal. Each year scholars are challenged to participate in research that is relevant, engaging, unique and consistent with their interests while under the careful watch of a faculty mentor. The broad scope of research topics and quality of articles always exceed expectations; this year's journal publication is no exception.

UNLV operates one of 200 prestigious McNair programs designed to increase attainment of Ph.D. degrees by students from under-represented groups. Since receiving the Ronald E. McNair Post-Baccalaureate Achievement Program in 1999, UNLV has assisted over 250 talented undergraduate students who have demonstrated strong academic potential and has provided them an opportunity to conduct research and participate in other scholarly activities.

This publication reflects not only the dedication and hard work that resulted in the research journal presented here, but also the extraordinary support and expertise offered by the faculty mentors. I congratulate the McNair Scholars, applaud all participating faculty, and extend my sincere appreciation to the Graduate College and the UNLV's leadership for supporting and encouraging the outstanding accomplishments of our students.



MS. DEANNA R. DAVIS

DIRECTOR FOR ACADEMIC ENRICHMENT
CENTER FOR ACADEMIC ENRICHMENT
AND OUTREACH

DR. HARRIET E. BARLOW
ASSOCIATE DEAN FOR RETENTION AND
PROFESSIONAL DEVELOPMENT
AND MCNAIR SUMMER RESEARCH
INSTITUTE COORDINATOR



MS. TERRI BERNSTEIN

RETENTION AND
ACADEMIC COORDINATOR

2009 MCNAIR SCHOLAR ARTICLES

HOMELESSNESS IN SOUTHERN NEVADA IN A NEW ECONOMIC PARADIGM

BY KATHLEEN BELL



ABSTRACT

The purpose of this study is to examine the new paradigm of homelessness in Southern Nevada. The United States economy is faltering amid a severe economic downturn. A recession was declared December 2007 (Gascon) and Nevada, particular Southern Nevada, continues to lead in negative economic indicators, as both the dynamics of homelessness and efforts to address it are evolving rapidly. Revenue streams have significantly decreased and governmental budgets have reflected those rapid changes many federal, state and local agencies have in turn curtailed funding for a continuum of programs targeted to address the homeless.

INTRODUCTION

Dramatic funding cuts to government agencies, non-profits, including both secular and non-secular charities, and grants, have been reduced, thereby distressing those efforts. Likewise, the Southern Nevada economy lists an unemployment rate of 12.5 percent and an extraordinarily high home foreclosure rate, directly attributing to the increase of homeless and those in need of social services. With less funding leading to system-wide stresses for all homeless related programs, and increased homeless numbers due to those same economic drivers, what can be accomplished in the new paradigm of homelessness?

LITERATURE REVIEW

Prior efforts in improving the conditions in Southern

Nevada for homeless and the resources allocated to those efforts over the past few years have proved successful. Amanda Llewellyn, staff writer for the weekly *Downtown View* reported:

Shannon West, regional homeless coordinator for Southern Nevada Regional Planning Coalition (SNRPC), said that while the number of homeless in Clark County has increased by nearly 2000 since 2007, the number of people living on the streets has decreased by twenty percent. West said that approximately 82 percent of the overall population is living in various shelters throughout the county or receiving some sort of shelter assistance (Llewellyn 1AA).

Noted nationally for a perceived 'meanness' and lack of social services to those in need over the years of substantial growth in Southern Nevada from 1988-2008, efforts as recent as the "No Wrong Door" in cooperation with the Homeless Prevention Assistance Consortia had demonstrated positive findings. A Clark County Social Service report of July 2009 by Continuum of Care Coordinator, Michelle Fuller-Hallauer (2009) presented to the SNRPC a summary of the status of homelessness in Clark County. She stated:

Mandated programs resulted in Financial Assistance Service (EAS), resulting in over 41,000 assistance checks issued in fiscal year 2009 to nearly 17,000 households. Street homelessness was down in 2009 census and there was a 62% increase in sheltered homeless. Furthermore, 66% of sheltered homeless were housed with EAS dollars. Medical Assistance

Service (MAS) provided inpatient care for more than 22,000 uninsured. There was a continuity of care for oncology patients and lifesaving treatment for individuals pending SSI/SSD disability determination would continue.

However, recent gains in addressing homelessness in Southern Nevada, are being radically reduced, in some cases as much as fifty percent and over the course of one single year budget cycle. The 2009 Legislature called for \$9.3 million dollar cut in the Social Service non-medical budget. According to the study presented to the SNRPC Committee on Homelessness by Fuller-Hallauer (2009), "important programs will be affected that will have significant impacts on vulnerable populations." Fuller-Hallauer also posited that the preservation of state programs are at the expense of county indigent clients. This statement further revealed that there will be reduced services for disadvantaged seniors, an increase in homelessness, medical costs and a strain on non-profit partners in the community.

The services for indigent clients are in jeopardy as the homeless population is immediately faced with fewer services. After twenty years of continued growth and only recent gains in combating homelessness, Southern Nevada's various social service programs as exemplified by the Clark County Social Services are making broad policy decisions with significant implications in a short period of time.

This body of research will demonstrate the significant challenges that are being faced by elected policymakers, professional social service workers and the homeless population, as both the dynamics and efforts to address these crucial services are severely curtailed. Multiple subgroups and categories of homeless people make it a challenge to garner accurate numbers for government funding and grants for social service programs. The Southern Nevada 2009 Homeless Census Survey refers to the Stewart B. McKinney Act of 1987 to define *homeless persons*:

[They are] people who lack a fixed, regular, and adequate nighttime residence, and have a primary nighttime residence that is either a public or private shelter, an institution that provides temporary residence for individuals intended to be institutionalized, or a public or private location that is not designed for, or ordinarily used as, a regular sleeping accommodation for human beings (Applied Survey Research, 2009).

Almost impossible to compile precise numbers for are the *unsheltered persons* who are defined as "those homeless who are living on the streets, in abandoned buildings, storage structures, vehicles, encampments, or any other place unfit for human habitation" (Applied Survey Research, 2009). Generally, those not utilizing Clark County-operated emergency or transitional housing shelters are considered unsheltered.

The *Chronic Homeless* according to the U.S. Department of Housing and Urban Development (HUD) are "... an unaccompanied homeless individual with a disabling condition who has either been continuously homeless for a year or more, or had at least four episodes of homelessness in the past three years (2009)." The term "disabled" used in the study refers to "physical disability, mental illness, Post-Traumatic Stress Disorder (PTSD), developmental disability, alcohol or drug abuse, depression, HIV / AIDS, or chronic health problems (Applied Survey Research).

The National Alliance to End Homelessness, (NAEH), pronounced in their January 2009 report that the new face of the homeless alters the public's preconceived notions:

[Former thinking] ...may belie the stereotype of a homeless person as one who struggles with severe disabilities, sleeps outdoors, is completely disconnected from the job market, and remains homeless for long periods of time." [More typical], "For most Americans who become homeless, the reasons relate to short-term economics-sudden and/or sustained unemployment leaves them unable to afford rent, and those who lack adequate support systems lose their housing" (NAEH, 2009).

The later occurrences of homelessness are often referred to as *acute homelessness*. An alarming number of the acute homeless are families. The National Coalition for the Homeless, the National Health Care for the Homeless Council, the National Alliance to End Homelessness, the National Association for the Education of Homeless Children and Youth, the National Law Center on Homelessness & Poverty, the National Low Income Housing Coalition and the National Policy and Advocacy Council on Homelessness conducted a collaborative study. Their report, "Foreclosure to Homelessness -2009" looks at the challenges the United States faces. Since 2007, these groups have noted comparative key

indicators of the Great Depression and our nation's current economic climate. Alarming similarities remain prevalent in these findings. They reported:

A perfect economic storm hit our country in the 1930's resulting in the widespread foreclosures, homelessness, bank closures and job loss that became known as the Great Depression. ... a series of crises have gathered into another perfect economic storm resulting in an unprecedented growth in the number of individuals and families left without homes (The Perfect Storm, 2).

On August 15, 2009, John G. Edwards, journalist for the *Las Vegas Review Journal* reported the "\$1.4 billion-asset" Community Bank as being the fifth "financial institution" in Nevada to fail in the last thirteen months. The article compared Community Bank's high-risk high-reward business strategy to that of Henderson-based Silver State, Bancorp, which was seized last September, and First National Bank of Nevada, which was closed in July 2008. Edwards cited Timothy Coffey, a stock brokerage specialist, as a knowledgeable source for factoring the probable cause for this latest downturn in our economy. According to the article, "the precipitous decline in residential real estate caught them [failed banks] short. By the time the cracks started to appear in the residential construction market, it was too late (Edwards, 2009).

The June 11, 2009 Bloomberg foreclosure update reported that Las Vegas had the highest foreclosure rate among metropolitan areas with a population 200,000 or more. One in 54 households got a notice, up 78 percent from a year earlier and up 4 percent from the previous month (Levy, 2009). An unprecedented number of foreclosures have swept across the nation. According to *RealtyTrac* property management data, Nevada ranks number one in property foreclosure filings. John Morrison, *Las Vegas Review Staff* Writer who reported on the SNHC survey conducted early in 2009 noted that, "...2.1 percent of respondents cited the foreclosure on a home they were renting, and another 2.1 cited foreclosure of a home they owned," as two of the major factors for their situation. "Job loss was cited by 67 percent (up from 35 percent in 2007) of respondents as the primary reason for homelessness, making it the No. 1 contributor."

In mid-July, Jennifer Robison writer for the *Las Vegas Review Journal* wrote, "Joblessness across Nevada hit a record 12 percent in June, up from 6.4 a year earlier ... Unemployment jumped even faster in Las Vegas, surging to a record 12.3 percent in June. Nationally, the unemployment rate was 9.5 percent in June." She astutely observed that Nevada is "suffering more" due to its "reliance on housing and discretionary spending — two of the national economy's hardest-hit-segments." Robison summarized it by stating:

Construction employment fell year-over-year 28,000 jobs, state-wide and 18.9 percent, or 19,800 jobs, locally. Positions in leisure and hospitality were off 7.1 percent, or 24,200 posts, across the state, and 6.6 percent, or 18,200 jobs, in Las Vegas. ... Nevada's employers have pared 83,700 jobs in the last year, with 60,000 of those jobs coming from Las Vegas. ... About 15,600 Nevadans lost their positions in June, bringing the number of unemployed in the Silver State to 169,800 (Robison, 2009).

William Anderson, chief economist for the Nevada Department of Employment, Training & Rehabilitation (DETR), stated in an August 2009 report, "Nevada is in the midst of the longest, deepest recession since World War II, and recent labor market trends show no sign of improvement, particularly unemployment, which surged at a record pace in recent months." Anderson continued, "The leisure and hospitality sector continues to limp along," citing a decrease in visitors as well and an "...apparent change in playing habits." The City Center's highly anticipated opening in the fall leaves him optimistic as "A reported 10,000 jobs will be created."

By mid-August *Las Vegas Sun* "In Business" reporter Brian Wargo wrote that Las Vegas had the dubious honor of "...holding onto its No. 1 ranking for distressed buildings and development. Quoting Jessica Ruderman, a senior analyst at Real Capital Analytics he wrote, "The Chapter 11 bankruptcy filing by Station Casinos in July ... will push the number of distressed properties past \$15 billion with \$6.5 billion attributed to Station." Another expert, John Restrepo, principal of Restrepro Consulting was quoted saying, "As the job market worsens, vacancy rates are likely to increase and banks will face more pressure from federal regulators to dispose of underperforming assets. He said the market won't know until 2010 how big the commercial foreclosure wave is (2009)."

An article written by Joel Stein regarding the current status and future of Las Vegas dominated the August 14, 2009 publication of *Time Magazine*. Stein referred to Las Vegas, a.k.a. *Sin City* as being the “epicenter of the extravagant consumption of the past 20 years.” The numerous “frozen construction jobs” staining the skyline along the strip were described in stark detail:

I pass cranes abandoned at the site of the Echelon, a huge, multibillion-dollar project of four hotels that is now just three buildings of nine floors of concrete and steel beams sitting idly on some of the most expensive real estate in the country. I pass three more abandoned sites — 63 empty steel floors of the Fontainebleau, a sad unfinished shell that was supposed to be Caesars Palace's Octavius Tower and ... a structure that was supposed to be a St. Regis condo building. ...the New Frontier was razed to build a resort...[now] just a dirt wasteland... (Stein, 2009).

Funding caps mandated by the 2009 Nevada State Legislature are creating tremendous challenges and burdens for those individuals who staff and administer social service programs. Scott Wyland, writer for the *Las Vegas Review-Journal* detailed the latest in a series of blows to the program that helps the homeless and destitute. Nancy Mc Lane, director of the county social services explained their dilemma to Wyland. The \$9.3 million dollar “revenue grab” she lamented, has spurred the closing of the Fertitta Community Assistance Center, an office that predominantly lent assistance and aid to the homeless. In an attempt to offset the losses, all part-time employees were let go and twenty-three percent of their full-time staff.

Jane Ann Morrison columnist for the *Las Vegas Review Journal* reports on the social workers who spoke before the Clark County Commission for their clients. Impassioned pleas to show compassion for the “...chronically ill, the blind, and the deaf...” those with dementia, “...lying in their own feces, who can't walk...” filled the chambers of the Clark County Commission meeting on July 6, 2009. Eight Clark County social workers drew vivid pictures of the impending plight of their clients if the proposed cuts slash through indigent care programs. Morrison quoted Scott Rader, a social worker as saying, “They [his clients], will die sooner, end up in nursing homes sooner and will kill themselves sooner.” Later Rader conjectured “When the police find someone in their home ‘lying in their own crap with cockroaches, who will they call?’ ... Commissioners told

county managers to find ways to provide the \$9.3 million... [each] made speeches about what should be done” (Morrison, 2009).

The county managers are being pressed from all sides. Morrison explained that the Nevada Legislature's mandate would divert \$180 million in property taxes from the county over the next two years to fund the states deficit. This requires a 5% cut across the board. The Senior Citizens Protective Service and Homemaker Health Aide Programs are on the top of the “save” lists. \$2.4 million will have to be scraped up to keep those programs afloat. This leaves indigent care services, formerly funded through property taxes holding a tin cup with a \$7 million dollar hole in it (Morrison, 2009).

The county commissioners had hoped they could avoid social service cuts. City Desk writer for the *Las Vegas Review Journal*, Scott Wyland learned County Manager Virginia Valentine merely sent a memo to the commissioners stating that they planned to “proceed with all the proposed cuts unless commissioners tell them to do otherwise.” Alarmed Commissioner Chris Giunchigliani called for a meeting. Wyland wrote, “The tense dialogue between county managers and some commissioners underscores a strained budget made tighter by the state dipping into county coffers to ease its own financial woes” (Wyland, 2009). Wyland's article closed with worrisome information regarding some of County Commissioner Lawrence Weekly's constituents. “Weekly talked about how constituents called him last year to volunteer to give away turkeys during the holidays. Now they're calling to ask how they can qualify to receive turkeys for their families, he said. ‘It's past saving jobs,’ Weekly said. ‘Now it's about saving lives’” (Wyland, 2009).

Morrison (2009) reported that some county officials offered suggestions to help remedy the diminishing county coffers. Commissioner Chris Giunchigliani proposed that they “seek a waiver from the Interim Finance Committee to try to use general fund money.” Commissioner Tom Collins suggested looking to the firefighters who will be receiving large pensions. Morrison explains that if the firefighters were to give up a 3 percent cost of living raise beginning July 1, the county would save \$3.6 million. The police department gave up their cost of living increase. She also reports that the “County management and members of the Service Employees Union Local 1107 gave up their increases, saving a

combined \$13.5 million." County Commissioner Chairman Rory Reid previously requested billionaire Kirk Kerkorian help fund the county hospital's oncology services. Reid determined, "We need to reach out to the community, non-profits and other well-meaning people (Morrison, 2009)."

Daniel Gross, the *Moneybox* columnist for *Slate* and business columnist for *Newsweek* wrote about the state of philanthropy during a recession. In the column, "The Coming Charity Crisis," Gross explains, "... like every other industry, philanthropy is tethered directly to the health of the overall economy, and in particular to the health of the upper-middle-class consumer. If the past is any guide, it's likely to be a lean year for nonprofits." The public usually focuses on "large, dramatic gifts ... by those who tend to be unaffected by short-term economic fluctuations," Gross points out. He clarified this concept stating, "...it's the smaller donations by hundreds of millions nonbillionaire Americans that fuel most of the nation's nonprofits" (Gross, 2008).

The facts paint a gloomy picture, yet some believe it to be an opportunity for creativity and "new thinking in the giving sector" (Cohen, 2009). According to Tod Cohen, editor and publisher of the online *Philanthropic Journal*, a "help desk" for charitable organizations, "The recession has triggered self scrutiny in the giving sector." Deferring to the president of the *philanthropic initiative*, Ellen Remmer who says of "givers and giving organizations" during a recession, "They're being forced to look very deeply into how nonprofits are achieving the mission or not." A "new normal" has surfaced; donors are becoming more involved with the nonprofits. Remmer continues, "... to accomplish the mission, as opposed to institutional survival or preservation," [nonprofits are], 'starting to suspend their egos, and the donors are listening... more willing to give operating support.'" Cohen says the "best of the best funders are giving more strategic planning and to do reflection and encourage those kinds of collaboration." These institutes are now trying to work with the government and they too, are listening (Cohen, 2009).

The challenges of homelessness are difficult to classify; however, the findings can be substantively interpreted and presented. The summation will be broad in nature. For example, homeless counts (Southern

Nevada 2009 Homeless Census and Survey) provide unique challenges to accurately reflect the numbers including those determining who is in transitional housing, emergency shelters, under a bridge, or 'doubling-up,' 'on the streets', or in rehabilitation or in jail.

METHODOLOGY

Data collection has been broad and significant in the research and was synthesized wherever possible. What was truly missing in all the reports and the counts are those thousands of people who have been absorbed into the creases of our society. Those couch surfing, and moving into garages, patios, and sheds of their friends and relatives, "just until things get better;" or they "find a new job, any job." These people have been floating along the surface of homelessness knowing that they and often their respective disenfranchised family are just one argument, one bad decision or difference of opinion away from the street. They are part of the new face of the homeless not just in Las Vegas, but across the nation.

Initially, social service literature provided a broad setting for understanding homelessness issues. Narrowing the focus to Southern Nevada, front line social service workers in the municipal and non-profit sectors further enabled research at a more local level, demonstrating how many programs are accomplished. Interviewing 25 homeless individuals demonstrated numerous challenges that are difficult to grasp solely through academic research. Both primary and secondary research was utilized.

With social service hard pressed for the basics and only able to care for a certain percentage of those in need, where will these new nomads turn when the goodwill of their patrons run dry? The old proverb, "There but for the grace of god go I" screams home its message and echoes off of the abandoned and foreclosed upon homes and businesses in almost every sector of Las Vegas. Economists expect the long awaited upswing to occur by the end of the year. Not soon enough for the 28.8 percent of the 13,338 plus homeless in Las Vegas.

CONCLUSION

The problems exist and like those on the street good news is just a "word of mouth" away from temporary relief. That is the coin of the realm for many of the victims of our economy. The latest food

pantry, donation center, dumpster, shelter, alcove, and swimming pool for bathing, hustle and give away; you name it. The homeless are very creative and inventive when it comes to survival.

Myrna Pilli of Help Hope Home believes that the Las Vegas community should adapt that same attitude. Pilli believes that we all need to work in "collaboration" with each other now in order to survive and continue to help those in need. Faith Houses, civic organizations and other donors are needed to "fill in the gaps" that the funding cuts have created. She believes that "funding the funding cuts" will help during these crises. Working together hand in hand to create a waterproof net for the needy and disenfranchised is imperative or the gaps will widen.

Back in 1986, newly ordained minister Reverend Bonnie Polley started out with a cardboard box filled with food donations for the needy in the office of Christ Church Episcopal. Since that time under her tutelage, the community now has the largest faith-based food pantry in the valley operating five days a week. The Catholic High School, Bishop Gorman also utilizes the Christ Church property twice a week during the pantry hours. Students and their mentors operate new and gently used clothing give-aways for job seekers in their *Matthew's Closet* program. In cooperation with the Presbyterian *Grace Ministries* and other civic organizations, Christ Church hosts a weekly "hot meal program" utilizing their large kitchen and hall. They also distribute donations of clothing and personal hygiene products to the hundred plus diners.

Reverend Polley was also instrumental in the founding of Safe Nest, an emergency center for abused women and their children. Family Promise, an inter-faith national organization dedicated to helping homeless families also counts on the Christ Church as one of their "host sites." Reverend Polley, now a Deacon in her church, has also been the Chaplain at the Clark County Detention Center for over twenty years. Reverend Polley who insists, "just call me Bonnie" believes charity is a "community and ecumenical" endeavor, and she proves it (Polley).

The spirit of cooperation and proactive remedies that include the neighborhoods and people worst hit economically would be an ideal place to start. Training and creating green jobs in these stressed areas would not only tend to the present, but also

be looking toward the future.

Perhaps fashioning projects similar to those instituted during the Great Depression such as the Works Progress Administration (WPA), would serve to catapult our economy out of its enduring recession.

While interviewing over a dozen community leaders, activists and advocates several things stood out. All agreed that our communities, the wealthy, those living in the poverty zone and all those living in between can no longer think of themselves as disparate groups. We all need to work together, the public and private sectors alike, united in the common goal to remedy the plight of our valley. The need to design build "Compassion Stations, Cooling Stations and Warming Stations" was heard repeatedly in interviews.

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A BEGINNING APPROACH TO SPANGLISH WITHIN THE HISPANIC/LATINO COMMUNITY IN LAS VEGAS

BY DANETTA BRADLEY



ABSTRACT

Researching Spanglish in the Hispanic/Latino Las Vegas, Nevada community will provide more information on a topic in a community that goes unnoticed by many sociolinguistic researchers. Spanglish affects Nevada just as it does California and Texas. (These are two of the states that are analyzed more because of their close location to Mexico and since they also have a very high population of Hispanics/Latinos.)

According to Yanira Paz, who is an Associate Professor of Spanish at the University of Kentucky, 31.1% of the Hispanic population is in California, which is about 11 million residents; and 18.9% of the Hispanic population is in Texas, which is around 6.7 million residents (Paz 57). In addition to this there are individuals who visit and move to Nevada from California everyday and this definitely has an influence on the Hispanic/Latino community. This research study will provide information on how Spanglish is viewed in the Hispanic/Latino community along with the awareness of Spanglish. This study will also contribute more knowledge to the field of study by presenting information to a community that sociolinguistic researchers fail to notice when they are studying Spanglish. Nevada will not only be generalized as being one of the Southwestern states, but it will now have its own category.

INTRODUCTION

My personal interest with the Spanish language has now resulted in this research paper that will strengthen understanding of Spanish itself, by exposing what is not true Spanish. Over a six to eight week period researchers have been involved in researching Spanglish; a phenomenon that is widely known, but with many definitions and viewpoints. There have been books, articles, interviews, journals, and many other publications on this topic, but none had the exact information that the research was seeking to obtain. The purpose of my study is to find how Spanglish actually affects the Hispanic/Latino community in Las Vegas, Nevada.

For this research, there was not one particular Hispanic/Latino community study that was previously done for it to be based on. Unfortunately, this was due to the insufficient amount of written sources available for the topic. After trying to locate previous studies, there were many on Spanglish, but none in the specific area of Las Vegas. Information had to be compiled from different resources. The resources found gave background information about Spanglish or about how the authors felt and were affected by it within their personal lives. There were some studies that did focus on other states or countries, but they did not give the exact information that was needed.

LITERATURE REVIEW

Many experts have studied Spanglish and one well known author even created his own dictionary. *Spanglish: The Making of a New American Language* published in 2003 and written by Ivan Stavans includes a 285-page dictionary of Spanglish terms that he created over many years while researching Spanglish. In reference to this dictionary Stavans states: "This volume is evidently descriptive. It isn't a didactic tool - its purpose is not to teach people how to speak Spanglish, but to represent the multifarious tongue(s) spoken by Latinos, and to a lesser extent by Hispanics world over, at the dawn of the third millennium" (Stavans 55). With the help of this dictionary I was able to come up with a survey that included Spanglish words, which will later be explained. Knowing the definitions of Spanglish was also important to my research to provide background information about this linguistic concept. Stavans suggests that Spanglish is defined as the verbal encounter between Anglo and Hispano civilizations (Stavans 5).

One of the purposes of this study was to provide information on how Spanglish is viewed in academia. As mentioned earlier, some of the resources chosen were written by authors who expressed how Spanglish has affected them. Stavans discusses his first hand experiences with Spanglish and how he came to admire it:

Another useful article for this study was researched by Yanira Paz. This proves to be a great study to use because it provides statistics. The author wrote an article titled *English, Spanish, or Spanglish in the United States; A Long Debate for the Twenty-First Century* that was published in the journal *Estudios de Lingüística Aplicada* in 2005. This article explains how with the increasing number of Hispanics/Latinos in the United States there is now a serious discussion amongst which language to use. Due to this increase of this minority population, Spanish is now being combined with the English Language, therefore creating Spanglish.

The section of the article "Las estadísticas no mienten" (*The statistics don't lie*), had a significant relevance to my study. It goes into detail about the increasing number of Hispanics/Latinos by giving the statistics, "De tal manera que de los 281.4 millones de residentes en esa nación, 35.3 millones son de origen hispano; es decir, 12.5% de la población total" 1 (Paz 57). This article goes further to mention that the

United Census of 2000 analyzed that the Hispanic population increased 57.9% from 1990 (Paz 57). Additionally the author makes a valid statement about the language as a result of the increasing population of Hispanics/Latinos, what will actually become of the language?

Estos datos confirman que la emergencia de esta nueva primera minoría impone una agenda política, cultural, social y educativa inaplazable. Para nosotros, estudiosos de la cultura y de la lengua, una de las preguntas más acuciantes es: ¿Cuál será la lengua o lenguas utilizadas por este grupo para la comunicación diaria? ¿Cuál será la lengua o lenguas de la educación, los negocios, el culto, la salud, la literatura, etcétera? 2 (Paz 57).

In conjunction with this, the section goes into detail about the specific states that have the most Hispanic population, California with 31.1% Hispanic population and Texas with 18.9% of the Hispanic population (Paz 57). Then it gives the statistics of the Hispanics/Latinos in the United States by nationality (for example Mexicans account for 7.3%, Puerto Ricans 1.2%, Cubans 0.4%, and others 3.3%) (Paz 57). According to Alfredo Ardila who is a professor/researcher at Florida International University, the United States is the fifth largest Spanish speaking country in the world, after Mexico, Colombia, Spain, and Argentina; that there are actually more Spanish speakers in the United States than in Venezuela, Peru, Chile, or Guatemala (Ardila 62).

Varieties of Spanish in the United States is another book found to be of interest to my study, the reason being because it actually mentions where the Spanglish term actually originates from and provides many different definitions on Spanglish. This book was published by John M. Lipinski in 2008. There is a section in the book titled Spanish, English or ... Spanglish? informing us on how the term Spanglish was introduced according to the author: "The term Spanglish -españolish in Spanish- appears to have been coined by the Puerto Rican journalist Salvador Tió (1954) in a newspaper column first published in 1952" (Lipinski 41). In reference to the origin of Spanglish, the author writes that "Spanglish is likely to arise spontaneously whenever contacts between English and Spanish are under discussion, and, therefore, to assign the creation of this term to a single individual or event is unrealistic (Lipinski 40).

Alongside this, the author provides many definitions of Spanglish. The use of integrated Anglicisms in Spanish, the frequent and spontaneous use of non-assimilated Anglicisms (i.e., with English phonetics) in Spanish, and the use of syntactic calques and loan translations from English in Spanish are just some of the definitions that are mentioned. In the end the author concludes that there is no universally accepted definition of Spanglish (Lipinski 53).

There is an article published in the *Hispanic Journal of Behavioral Sciences* in 2005 titled *Spanglish: An Anglicized Spanish Dialect*. This study of Spanglish was completed by Alfredo Ardila. In relation to my study, "What is Spanglish?" is the section that holds the most relevance. In this part he addresses that Spanglish has its difference amongst the community where it is spoken. He announces that "The Spanglish found in Texas and California, where there is a very large Mexican population, is sometimes also known as Chicano (the term Chicano refers to a second-generation of Mexican-Americans). Some Chicano words and expressions would not be comprehensible to Florida Hispanics. As a matter of fact, Spanglish words are tailored according to specific social needs and circumstances, and a permanent creative process is observed" (Ardila 63). In addition to this, his research on Spanglish takes more of a linguistic approach as he gives examples of this phenomenon while classifying them under semantic, phonological, morphological, and syntactical categories. He uses this to determine how and why people can easily use Spanglish.

METHODOLOGY

Upon extensive reading on this matter, the first step in research was to produce a definition of Spanglish for myself. Understanding of Spanglish is that it is the mixing or blending of two languages, Spanish and English in order to communicate with one another. As some of the previous studies have stated, this occurs when two different languages come together and speakers try to find a common way to communicate with each other whether it is proper or not. Francisco A. Marcos-Marin mentions in his book, "El spanglish afecta a las personas que tratan de comunicarse en un medio anglo, sin dominar el inglés, y a quienes se quieran comunicar con ellos, desde el inglés, sin dominar el español" 3 (Marcos-Marin 241). There is another interesting remark that the author Ed Morales mentioned in his 2002 book, *Living in Spanglish: The Search for a New Latino Identity in America*. Morales states that Spanglish is a survival

mechanism, a way of importing the tongue of the adopted country while retaining the mindset of the old one (Morales 97). After defining this phenomenon, one question in particular came to mind: How does Spanglish affect the Hispanic/Latino population or does it even affect them at all?

In order to reply to the above inquiry, the considered research designed a way to obtain this information from the question proposed. Before gathering this information, the considered study narrowed the question down to just reflect the Las Vegas Hispanic/Latino community in Nevada because every Hispanic/Latino population differs depending on the location that they are in; therefore the way Spanglish affects them would be different because of the diverse dialects/characteristics inherent in this segment of the population. As Ardila states: "Spanglish is not a unified dialect [...] the Spanglish spoken in Texas may differ from the Spanglish spoken in New York or Miami" (63). After narrowing the question to how does Spanglish affect the Hispanic/Latino community in Las Vegas, Nevada, it would now be feasible to get the desired information that was relevant to my research goal.

The next step was to design a methodology to obtain this information, in an accurate reliable way. Another factor that was taken into consideration was the amount of time allocated to complete this research. After careful examination it was decided to compose a survey. Research staff chose to gather the information this way in order to collect the data needed. This survey had 19 questions; 17 multiple choice and 2 short answer (See Appendix A). The multiple choice questions were fill-in-the-blank answers with either a Spanglish or Spanish word. The last two short answer questions requested that the participants define Spanglish and how they felt about it. Demographic information was also collected of the individuals completing the surveys. This was done to obtain a better understanding of why specific Hispanic/Latino members of the community chose their answers.

The first downside to having the general public complete surveys would be finding and getting the individuals to complete them. The first tactic was to do it by e-mail through Monkey Survey. This proved not to be a success because researchers would have had to provide the e-mail addresses for the participants to complete the survey and the survey conductors did not know that many individuals.

Another option was to obtain e-mail addresses through the university. This also proved to be unsuccessful because the departments that were contacted at UNLV did not know the right person for me to write to in order to obtain the e-mail addresses. The OIT (Office of Information Technology) Department at UNLV directed me to an area on their website (<http://oit.unlv.edu/accounts>) for individuals to contact to have my survey completed through e-mail. After this process there was not enough time to finish all the steps and procedures to follow due to a minimum of one week approval period for the survey to be posted. Lastly, it was decided to hand the surveys out in person. This was a much simpler process because staff would hand them out and the participants would just hand them right back to the staff with no middle man in the process. Naturally there were individuals that did not want to fill them out. For the individuals that did complete it, researchers had them pass the survey on to their friends and family in the community and then return it to me. This proved to be a great success.

The second downfall of using a survey to obtain information was having the participants answer the questions truthfully. With surveys, normally participants tend to answer them in a socially desirable way. (This means that respondents would reply in a manner that will be viewed favorably by others, therefore leading to incorrect information being analyzed). In order to overcome this obstacle I tried to explicate to all the participants before they completed the survey that this was part of a research project. It is pointed out that this was not for a grade and everyone that completed it will remain anonymous. Survey takers were instructed to answer the questions just how they would on a normal day-to-day basis. Altogether 54 completed surveys were received, in which now they were ready to be analyzed.

The intent of the research was to make a spreadsheet that noted all of the different responses from the surveys.. When the information was being recorded, there was a pattern that began to appear. There was a great difference between the students at the high school/college level and the rest of the community. Due to this, it was decided to make two separate spreadsheets and then compare the two. Research was not only studying the effects of Spanglish amongst the community, but between the students and the other individuals. This is where

the comparison between the two Hispanic/Latino groups began. At first it began as one spreadsheet analyzing the answers from the survey, but it ended up being two because of the difference in answers. There was a certain pattern (that will be explained later) with who was using Spanglish and why.

The analysis of the data collected shows that the high school and college students used Spanglish more frequently than the rest of the community, even though they were more educated and actually knew the difference between Spanglish and Spanish. This was a surprising result since Spanglish is normally seen as being used by uneducated, low class people (Ardila 7). The majority of the students who completed the surveys were women between the ages of 18 and 25, born in the United States and were of Mexican descent. From the surveys it was also noticed that the students were more comfortable using Spanglish and practiced it on a daily basis. They accepted it as being a normal transition within the Spanish language. Some of the comments received from the students were:

Spanglish is something I use on a daily basis. Sometimes I don't know I am using it. It is easier for me to speak Spanglish than both Spanish and English... I do not think too much about it at all. I think Spanglish is a natural evolution of language... I think it's just part of the natural adaptation of a language. American and Mexican cultures have merged so the languages should follow the same pattern... I think it has become something inevitable. The culture has become intertwined and will not stop regardless of time. Many cultures are a combination of other multiple heritages... I feel it's the transition between Spanish and English.

On the other hand, the rest of the Hispanic/Latino community used Spanglish less often than the students. The majority of these participants were women of Mexican descent who were born in Mexico and not the United States. When it came to the age groups there were three groups that were the majority and it consisted of individuals between the ages of 18 and 25, 25 and 35, and lastly over 45. All of these different age groups had the exact same number of participants, six to be exact. They were also not very accepting of Spanglish, even though some of them did incorporate it in some of their answers. There were a lot of negative comments towards the use of the Spanglish. A lot of them felt that it was an invasion of the Spanish language and

that people used Spanglish because they did not want to make the effort to learn the real Spanish. Some of the participants felt that Spanglish was making the community lose its true identity. A few comments that I received from the survey were:

It works for those who don't care to learn the real thing... It is a term for describing words that have been accepted among English and Spanish speakers to communicate without having to learn the correct term... Spanglish is making two languages lose their origin... Spanglish is not right, it has incorrect phrases and many errors.

Considering the dichotomy of comments between these groups, researchers must consider the following questions: Why would students use Spanglish more than the non-students? Were they being lazy? Was it because they were used to it or exposed more to it? Was it because they did not know the equivalent word in Spanish?

There are many reasons why students use Spanglish, but the main reason is because Spanglish is actually inevitable amongst students. Students at the high school/university level are exposed to both Spanish and English more frequently than those who are not; because of this constant exposure to both languages, they are destined to intertwine and new words are created. There was another reason offered on why educated Hispanics/Latinos use Spanglish and it was discussed in an article written by Laureano Corces, where he points out that:

Fabiola Santiago offers a more probable explanation in her article "Se calienta debate sobre el "spanglish" (The Debate Over "Spanglish" Heats Up)". As she declares, "Para muchas personas bilingües, combinar ambos idiomas es cuestión de identidad y comodidad, la confirmación de que viven entre dos culturas"⁴ (Corces 36).

Ultimately, one must consider how does this actually affect the Hispanic/Latino community in Las Vegas, Nevada.

CONCLUSION

This research can clearly conclude that Spanglish does affect Hispanic/Latino speakers, in the sense that is spoken by members in the Hispanic/Latino Las Vegas community, whether it is students or non-students. However, many view it as a process

of change and with that change being inevitable. When comparing the results of the students to the rest of the individuals in the community, the first group was in fact more willing to accept it. The students are still able to differentiate between Spanglish and Spanish, but they prefer to use Spanglish because they are more comfortable with it. The students also know when to use this unofficial language and when not to use it. With the other individuals/non-students they also knew the difference between Spanglish and Spanish, but they chose not to use Spanglish. Marcos-Marin makes an excellent argument about Spanglish when he states that "El spanglish no debe confundirse tampoco con los resultados de un mal conocimiento, unido a descuido y, en el fondo, a desprecio cultural, que se refleja en las malas traducciones al español que son características de muchos lugares, incluidos documentos oficiales de municipios o estados"⁵ (Marcos-Marin 241).

In reference to Spanglish, it is definitely a phenomenon that will continue to exist and evolve. The upcoming Hispanic/Latino generations in Las Vegas as well as in the United States will continue to make use of the language regardless of what status it holds in the Hispanic/Latino community. As defined, whenever there is contact between the English and Spanish language, this language will emerge from the two. Spanglish holds both a positive and negative influence within the Hispanic/Latino community, depending with whom you speak. The benefits can be associated with the fact that it provides another way of communicating; therefore creating another language. On the contrary, it can be seen as the depletion of another language, Spanish. Generally, all the participants were able to recognize and control the usage of it. Spanglish is a continuous process that alters the way Spanish speakers communicate with each other. Ultimately, this is a phenomenon that has been occurring since the first contact of the two languages and will continue to proceed, until eventually it will transpire into its own official language or be incorporated into the official Spanish language.

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APPENDIX A

Esta es una encuesta general sobre el tema "Spanglish". Por favor elija una respuesta que considere apropiada o correcta para las preguntas siguientes. El objetivo de esta encuesta es obtener más información sobre el Spanglish. Todo aquel que rellene esta encuesta va a permanecer en el anonimato. La información recopilada en esta encuesta va a ser publicada en un artículo de investigación por una estudiante de UNLV.

This is a general survey about Spanglish. Please choose a response that you feel is appropriate or correct for the questions asked. The purpose of this study is to obtain more information on Spanglish and all who completes this will remain anonymous. The information collected in this survey will be published in a Research Paper by a student at the University of Nevada, Las Vegas.

Footnotes

1 In such a way that out of the 281,400,000 million residents in this nation, 35,000,000 are of Hispanic origin; That is to say 12.5% of the total population.

2 This data confirms that the emergency of this new first minority imposes an educational, social, cultural, and political agenda. For us, scholars of the culture and of the language, one of the most pressing questions is: Which will it be the language or languages used by this group for the daily communication? Which will be the language or languages used in education, the business, the worship, the health, the literature, etc?

3 Spanglish affects the people who try to communicate in an English context, without mastering English, and to those who want to communicate with them, from English, without dominating in Spanish.

4 For many bilingual individuals combining the two languages is a matter of identity and comfort, the confirmation that they live between two cultures.

5 Spanglish should not be confused neither with the results of bad knowledge, or carelessness and, in the end of cultural contempt, reflected in the bad translations into Spanish that are typical of many places, including official documents of town halls or states.

INFORMACIÓN DEMOGRÁFICA

Profesión: _____

Nacionalidad: _____

Lugar de Nacimiento: _____

Edad: Menor de/Under 18 18-25 25-35
35-45 Mayor de/Over 45

Educación: A.) escuela secundaria/high school
B.) bachillerato/H.S. Diploma C.) cursos universitarios/some college courses
D.) licenciatura/bachelor's E.) maestría/master's F.) doctorado/Ph.D.

Sexo: Hombre/Male o Mujer/Female

PREGUNTAS DE OPCIÓN MÚLTIPLE

La definición de Spanglish es la mezcla de palabras inglesas con palabras del español cuando una persona habla en español. En las oraciones siguientes escoja la palabra que considere apropiada o correcta para completarlas (Por favor elija una opción).

- 1.) _____ tiene muchas flores.
a.) la yarda b.) el jardín c.) el patio
- 2.) Voy a ir _____ hoy.
a.) a la marketa b.) al mercado c.) a la marqueta
- 3.) ¿Tú _____ clase ayer?
a.) asististe a b.) atendiste

APPENDIX A

- 4.) Nosotros vamos a manejar _____ hoy y mañana.
a.) la troca b.) el camión c.) el van
- 5.) Quiero _____ este trabajo.
a.) aplicar por b.) solicitar
- 6.) Mi madre siempre utiliza la aspiradora para limpiar la _____.
a.) carpeta b.) alfombra
- 7.) Él está en una _____.
a.) ganga b.) pandilla
- 8.) ¿Mandaste una _____?
a.) letra b.) carta
- 9.) Hay mucha gente en el mundo hoy en día, la _____ está creciendo.
a.) población b.) población

10.) Las _____ están equivocadas.

- a.) estadísticas b.) estadísticas

11.) Vamos a la _____.

- a.) pari b.) fiesta c.) party

12.) Usamos _____ para hacer la tarea

- a.) la computadora b.) el ordenador c.) el computer

13.) _____ aquí.

- a.) Haz click b.) Cliquea c.) Oprime

14.) Voy a la _____ para lavar la ropa.

- a.) washatería b.) lavandería

15.) _____, he terminado el proyecto.

- a.) Actualmente b.) De hecho

16.) ¿Estás _____?

- a.) serio b.) serio

17.) La película fue un _____.

- a.) suceso b.) éxito

OTRAS PREGUNTAS

1. ¿Cuál es su opinión sobre el Spanglish?
What do you think about Spanglish?

2. ¿Cuál es su definición de Spanglish?
What is your definition of Spanglish?



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THE OLD WOMAN WHO LIVED IN A SHOE: THE IMPORTANCE OF ADOPTING FOSTER CHILDREN DURING AN ECONOMIC RECESSION: A QUALITATIVE STUDY

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ABSTRACT

During an economic recession, it is important to note the increase of children entering the foster care system and the effect it will have on future economic conditions if that increase is left unchecked. This research paper is a qualitative study that measures the impact that a stable home has on the future welfare of young people.

INTRODUCTION

It is plain to see that the current economic recession is taking its toll on every aspect of people's lives. While financial analysts look to the past to see what has brought the economy to this point, and politicians focus on the present and how to deal with the current crisis, this paper will examine the future of our society by looking at how the recession is affecting children who are without the covering of a parent and in need of adoption. This paper will further examine the rising rate of children entering the foster care system due to family economic struggles, common motivations of adoption as well as problems that arise should foster children remain in the foster care system. The goal of this research is to show the rising rate of aban-

doned children and the need of adoptive parents to claim these children for the sake of societal stability.

LITERATURE REVIEW

In her article, "Foreign Adoptions And The Evolution of Irish Adoption Policy, 1945-52" Moira Maguire researches the less than humanitarian reasons for which Ireland participated in the international adoption process. In contrast to Germany, which attempted to place children in families that would be better for them, Ireland used international adoption as a means of ridding itself of unwanted, illegitimate children. According to Maguire, no one challenged the legality of shipping these children overseas and little if any concern was placed on the quality of the people who were taking the children. The one stipulation Ireland made was that the couple had to claim that they were Catholic (2002). At the time, many of these children were released to the new parents with few questions asked (Maguire, 2002) because charitable institutions were overwhelmed with requests for assistance from desperate mothers who were rejected by their family or fired from their jobs when their pregnancy was discovered (Maguire, 2002). Many were pres-

sured by friends, relatives, and social workers to release their children for adoption (Maguire, 2002). Years later, when the former Irish adoptees returned to Ireland to retrace their roots, their efforts were met with aggression and frustration because the agencies who conducted the early international adoptions did not keep adequate records (Maguire, 2002). The whole focus of the Irish international adoption plan was to suit the convenience of the government and satisfy the demand of United States' couples. It had nothing whatever to do with what was best for the children themselves. In fact, it would not be until long afterward that the Irish government would begin to issue legislation to ensure the well being of children.

In the article "Germany's 'Brown Babies' Must Be Helped! Will You?: U.S. Adoption Plans for Afro-German Children 1950-1955," Yara Colette Lemke Muniz de Faria examines the early history of International adoptions in the United States. After World War II, the Allied powers occupied West Germany. As a result of this occupation an estimated 67,770 children were born to American GI's and German women between the years 1945 and 1955 (De Faria, 2003). The conflict arose when some of these children turned out to be children of African American soldiers. De Faria uses this article to investigate what caused both the United States and Germany to engage in the international adoption process as well as the role that the African American media played in facilitating this exchange. Government in both the United States and Germany had to create a policy to deal with the situation. With segregation at its height and inter-racial relationships illegal in 30 of the 48 states at the time (De Faria, 2003) the US military dealt with the situation by re-stationing any African American soldier whenever he requested permission to marry or if it was discovered that he had fathered a child (De Faria, 2003). The mothers and children were left to fend for themselves. De Faria states that directly after the war worried nurses and soldiers told African-American news sources again and again that "black German children were starving as their mothers were being denied the benefits of the German welfare system," (2003). While some formed grassroots organizations to help these women in need, the officials of the German government favored sending the children out of the country preferably to the United States (De Faria, 2003).

After the successful adoption of two such children by African American school teacher, Ms. Butler (De Faria, 2003), international adoptions became a regular part of the German government's plan to resolve this issue. Using only African American media such as articles in Ebony magazine or the Afro-American, Afro-German children were advertised to the Black American community as needing adoption. This private adoption program worked and through the help of its leader, Ms. Mabel Grammer, successfully placed 300 children with African American couples who were currently stationed in Germany and another 50 children with couples who were living in the United States (De Faria, 2003). Although not much is known about what happened to the Afro-German children who stayed in Germany, De Faria states that the reason both nations took part in this program was due to the concern that these children would be rejected by society if they remained in Germany because they could not assimilate into the main population (2003). It was this concern that motivated sympathetic African Americans to adopt the Afro-German children in order to "save" them from life of discrimination and ostracism.

According to private adoption agency consultant Jo McLaughlin, this idea of "saving" children from suffering is a big part of what motivates some parents to adopt internationally today (personal communication, August 22, 2009.) Often times the children are from various nations where they are orphaned due to disease and face a life of hunger in an orphanage. McLaughlin states that costs for this type of private adoption can range anywhere from \$25,000-\$40,000 (personal communication, August 22, 2009.) For those who choose to adopt within the country and go through a private organization, costs range from \$20,000-\$35,000 and oftentimes, those who are adopted are babies whose ages range from newborn to 12 months old (personal communication, August 22, 2009.) Although some of these children are victims of drug and/or alcohol exposure, McLaughlin insists that, "usually good homes undermine bad effects [of the drug/alcohol exposure]" (personal communication, August 22, 2009.) The final group from which potential adoptive parents can adopt and the one that will be most affected by the change in the economy is the public sector. These are children who are a part of the government foster care system. They are typically older children who have been removed from the home due to abandonment,

every child that is in foster care is legally available for adoption, those that are can be adopted for just a few hundred dollars (J. McLaughlin, personal communication, August 22, 2009.) This is the group on which this research paper will focus.

According to Christopher Swann and Michelle Sheran Sylvester in their article, "The Foster Care Crisis: What Caused Caseloads to Grow," the number of Foster care children has increased. "In 1985, 276,000 children were in foster care. By 1999, this number had [increased] to 568,000," (Swan & Sylvester, 2006). In this article, Swann and Sylvester investigate the causes for this increase and through their research determined that it was mainly due to an increase in female incarceration and a decrease in welfare benefits (2006). If such an increase in casework can occur during an economic boom one can only imagine the increase that would occur during an economic recession.

The purpose of this study is to examine the correlation between the current economic crisis and the need for families to adopt from the public sector. In their article "Providing Better Opportunities for Older children in the Child Welfare System," Ruth Massinga and Peter Pecora address the seriousness of the situation of those who are left in foster care until they are legal adults. When citing previous research they state, "compared to the general population, a higher proportion of [youth transitioning from the foster care system into independent living] are involved in the criminal justice system, are at a higher risk for teen pregnancy are more likely to experience homelessness [as well as] have higher rates of unemployment and dependence on public assistance," (Massinga and Pecora, 2004).

METHODOLOGY

In order to measure the effects that a stable home environment has on a youth's chances of success upon reaching legal age, we will conduct a longitudinal study that will last five years. During those five years we will conduct a multivariate analysis using a randomly selected sample group of 40 youth ages 16-18 years old from the Clark County area. These young people will be divided into four groups of 10. Group 1 will be comprised of 10 young people who will come from a home in which they live with their biological parent(s) and have never entered into the foster care system. Group 2 will be comprised of 10 young people who have been permanently adopted

into a family whether through public, private, or international means. Group 3 will be a group of youth who were at one point a part of the Clark County foster care system and were later returned to the custody of their biological parent(s). Group 4 will be comprised of youth who have entered into and remained in the foster care system until they were cut off from public assistance at age 21. Group 1 will serve as the control group against which the other three groups will be measured. At the end of the five year period we will poll the groups and determine which group has the highest rates of homelessness, unemployment, delinquency and use of social services such as TANF and WIC. It is our belief that Groups 2 and 3 will have a much lower rate of homelessness, unemployment etc than Group 4 and thereby support our conjecture that students with a stable home-life are less likely to be dependent on social services than those whose home-life was unstable.

RESULTS

Although we were unable to complete the study, we believe that the results would reflect those stated by Massinga and Pecora when they declared, "Youth transitioning from foster care are more likely to experience homelessness [and] have higher rates of unemployment and dependence on public assistance" (2004). We also believe that the group of children who were adopted would have the best outcome of the three variable groups because they were removed from the potentially harmful situations in which they began and were placed into a new, more stable environment than the other two variable groups.

SUMMARY

Despite today's turbulent economic times, it would behoove the nation to turn its attention to the increase in young people entering the foster care system as well as the growing number of such children in need of a home. With the current recession underway, one can only imagine the kind of devastation the welfare system will suffer with thousand of new adults who have nowhere else to go begin enrolling in dwindling services. Although private adoption allows one to have more control over the age of the child adopted and international adoption may give a person the satisfaction of knowing that they rescued a child from perils unknown in a country far away, many potential adopters should not be so quick to turn away from public adoption.

By adopting from the public sector, one can save the life of a child as well as contribute to a more stable society in the future. It is probably best summarized by the program director of Youth Advocacy Center in New York, Ms. Ann Shalof, when she wrote:

In these challenging times, it is more critical than ever not to resign ourselves to graduating youth from foster care to public assistance. These young people are a valuable resource, and we must prepare them to get beyond the system. (2009)

Offering these kids a stable home through adoption could be the most valuable preparation they ever receive.

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THE GENDERED CONSTRUCTION OF SORORITY MEMBERS IN POPULAR GREEK FILMS

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ABSTRACT

The purpose of this study is to explore the gender scripts that are present in the portrayals of sorority members in popular “frat” and “sorority” films. Through a review of pertinent literature on sorority members, identity and gender constructions within Greek society, and gender in the media, a proper framework was organized in order to commence a content analysis of eight films. These eight films, produced within the years 2000 and 2009, will be analyzed for the gendered roles and characteristics that the white sorority characters are shown to portray. This research hopes to prove that film portrayals of sorority members construct a specific kind of “sorority femininity” and that these portrayals may influence the current perceptions of sorority groups.

INTRODUCTION

Many media portrayals of Greek-letter organizations depict such institutions as the epicenter of collegiate social life. This extensive focus on Greek social life ignores the complex reality of Greek society and offers stereotypical images of both of its fraternity and sorority members. In film, particularly in the comedic films that focus extensively on collegiate Greek society, these stereotypical images not only provide a framework for the character development and plot line, but also helps provide fodder for its humor. Due to its jovial and sometimes rowdy nature, these films are often disregarded in

society as being harmless and “fun” films. However, beyond the seemingly harmless veneer of these films, a closer look at the film portrayals of fraternity and sorority members provides an interesting perspective on the social behaviors and gender roles expected of these groups. As such, the purpose of this study is to explore the gender scripts that are present in the portrayals of sorority members in popular “frat” and “sorority” films. Essentially, this study hopes to define the sorority stereotypes found in these films and also hopes to examine how this stereotype is affected by the traditional conceptualizations of femininity.

Many people in society have preconceived notions of Greek society that they have developed from various sources throughout their lives. The mass media, one of the most important socializing institutions in society, most likely provided many of the images from which people have drawn their preconceptions from. Countless of these images most likely included the aforementioned rousing depiction of Greek members in films, thus potentially influencing many with their depictions of these members. However, the reality is that for many undergraduate students membership to a Greek-letter organization is the key to an important social network in their lives. “Going Greek” not only provides these students with a lively social life, but also provides them with a cohesive identity (Vida, 1999),

as well as the necessary leadership and social networking skills needed in their after-college lives (DeSantis, 2007). As such, it is important to study this disjuncture between media portrayals of sorority members and the actual reality of this group in order to understand how the image of sorority members is constructed in society and how this construction not only affects the treatment of this social group, but also how the group views itself. There are very little forays into the media portrayals of sorority members or even of media depictions of Greek members in general. Thus, this study hopes to contribute a lacking knowledge to the existing literature discussing gender depictions in the media and also studies regarding sorority organizations.

LITERATURE REVIEW

SORORITY MEMBERSHIP: NETWORKING AN IDENTITY

For many, college provides the first true experience as an independent individual. Away from parents and past social circles, an undergraduate student is presented with the exhilarating yet harrowing opportunity to make their own choices, associate with new social groups, and, in short, create or find a new identity. Joining a sorority, thus, is appealing to young women because it eases the transition into college by providing an established social network of "brothers" and "sisters" with similar interests as well as a well-recognized social identity in a new environment (Vida, 1999). As such, a sorority affiliation is considered by Vida as the "cornerstone of her (the sorority member's) collegiate identity" because it determines who she associates with and how she is expected to behave (1999). Arthur's (1997) study on the symbolic self-completion of sorority pledges demonstrated that when young women rush and pledge to a sorority, they attempt to express their embracement of the sorority member role by adhering to the behavioral ideals and symbolisms of the sorority group. These women immerse themselves in the sorority sub-culture in order to assure others of their role adequacy as a member of their sorority group. This immersion in the sorority group, however, also socializes the member to adopt the group ideals as their own, thus causing the solidification of their sorority identities in both their personal and social spheres.

GENDER WITHIN THE GREEK SYSTEM: SORORITIES AND FEMININITY

The internalization of sorority and Greek system standards shapes the gender identity, as well as the individual identity, of sorority members (DeSantis,

2007). As Handler (1995) described it, joining a sorority is a gender strategy in which "women engage, both individually and collectively, in constructing themselves as women" (2007). However, the ways these young adults construct themselves as "women" is often limited by the gender ideals found within the Greek system. Scholars have noted that the Greek system is a highly traditional or conservative institution in regards to its conceptualization of gender and gender roles (DeSantis, 2007; Risman, 1982; Kalof & Cargill, 1991). The Greek system usually conceptualizes gender as it is done in society, where gender is socially constructed as a divided binary in which the characteristics of one gender are directly oppositional from the characteristics of the other. As such, if masculinity is defined as assertive, promiscuous, independent, and successful, then femininity is defined as passive, monogamous, dependent, and domestic (DeSantis, 2007).

In regards to sorority members, there is a direct social relationship between the traditional conceptions of femininity and popularity. Usually, the sororities regarded as popular and elite are those that stick closely to the gender conceptualizations of the Greek system (DeSantis, 2007). Even one individual's deviance from the Greek model of femininity may result in a negative image for the whole sorority. As such, the sorority group actively seeks those who conform to their own feminine ideals during the rush and pledge process while dispelling or disbanding those who do not. Thus, this link between popularity and femininity essentially serves to encourage the reproduction of the Greek system ideals by both rewarding conformity and punishing deviant behavior.

Various studies have discussed the constructions of gender roles within sororities and the Greek system in general. Kalof and Cargill (1991), for example, assessed the differences in gender dominance attitudes between Greek members and independents (non-Greek students) and found that Greek members were more likely than independents to subscribe to traditional stereotypical views about male dominance and female submissiveness in interpersonal relationships. The researchers of this study speculated that the gender segregation within the organizations of the Greek system "might serve to exacerbate traditional gender stereotypes" within these groups (1991). Risman (1982) asserted that the Greek system ensures that its male and female members enter their after-college adult lives with oppositional yet complimen-

tary skill sets and gender roles, which essentially follow the gender binary. As such, sorority members were essentially learning how to be "women" in the traditional sense, with goals and desires of marriage and family. According Berkowitz and Padavic (1999), this focus on the traditional feminine goals of domestic marriage instead of on the more modern career focus in white sororities is in part due to the socio-cultural history of white women, in which the only options historically available to them as females was to "get ahead" by marrying well.

DeSantis' (2007) extensive study on the gendered identities of fraternity and sorority groups at a university he named "Greek U" provided greater detail on how the inner workings of the Greek system were interconnected with the traditional gender conceptualizations of fraternity and sorority groups. Using relative statistical data as well as many years of personal observation and many hours of one-on-one and focus group interviews, DeSantis demonstrated that although all Greek members conceive gender in a "predictable and orderly" manner, the most elite sorority and fraternity groups are more traditional and stringent in regards to their conceptualizations of femininity and masculinity (p.219).

Furthermore, DeSantis argued that these traditional conceptualizations of gender, when in a heightened state, can be correlated to the most salient issues facing the Greek system today. Examples of these issues are sexual aggression and rape, excessive drinking, and distorted body images, which lead to eating disorders in women and excessive and deleterious exercise habits in men. However, the researcher also found that despite the uniform and relational depictions of masculinity and femininity that these groups described, their own gender practices challenged the gender depictions they had discussed. Thus, this study proved that although gender is conceptualized by Greek members as static attributes, it is in actuality a fluid performance that is enacted in everyday Greek life.

Although sorority women are encouraged to "be feminine" in a general and traditional sense, there are three specific characteristics in this conception of femininity that are salient and most present within the group. These characteristics are the thin ideal, controlled sexuality, and cattiness. Pertinent literature on sorority groups often focus on or at least discuss these characteristics in their studies, proving that these ideals are salient within sorority groups. For example, studies focused on the increased inci-

dence of eating disorders within sororities often refer to the thin ideal, which is considered the ultimate goal of physical attractiveness for many of these women (DeSantis 2007; Basow, Foran & Bookwala, 2007; Schulken, Pinciario, Sawyer, Jensen & Hoban, 1997). In regards to sexuality, studies have focused on sexual control (as well as sexual victimization) and have demonstrated that although sororities provided a more permissive sexual socialization (Lottes and Kurloff, 1994), sexuality continues to be a double edged sword in which sorority women have to negotiate and define their own conceptions of virginity and sexuality in order to follow the feminine dictates of chastity and monogamy (DeSantis, 2007). Cattiness, on the other hand, is discussed as a pervasive negative characteristic of distrust and competition in various studies (DeSantis 2007, Risman 1982, Handler 1995). Unlike the other characteristics, which focus on the self, this term is often ascribed to other sorority women, and has important implications for the cohesion of sororities because it is often tied to feelings of a lack of complete sisterly solidarity within the group.

GENDER AND THE MEDIA

In order to understand how sorority women may be depicted within film, a basic understanding of the portrayals of women and femininity within the mass media and film is helpful. As DeSantis (2007) discussed, gender is not a static attribute, and as such, gender roles can and will shift according to current situations in society. Media representations of feminine behavior, thus, also changes in accordance with the changing shifts of expected gender behaviors in society (Benshoff & Griffin, 2004). However, this does not mean that gender roles are shifted alongside with the shifts in permissible gender behaviors. During the 20th century there have been various instances in which gender norms or roles were expanded. During the early 1940's, wartime propaganda encouraged women to work which helped expand the public role of women within society. During the 1960's, the sexual revolution allowed for more permissive attitudes towards extramarital sex, and in the 1970's the women's movement changed the social perceptions of gender roles and abilities. Each of these instances is a milestone in female advancement, but each of these instances has also met with conservative backlash within the mass media and film that undermined these advancements and continually re-enforced traditional gender roles of male dominance and female submissiveness (Douglas, 1995; Benshoff & Griffin, 2004).

Throughout her analytical discussion of the mass media's portrayals of women from the 1950's through the 1990's, Douglas (1995) demonstrated that the media has continually compartmentalized women through their depictions of different female archetypes and personas. This, Douglas assessed, has resulted in the lack of a unified self within the female consciousness. In film, this compartmentalization is evidenced in the classic stereotypical depictions of women as being sexy and objectified blonde bombshells, dangerous femme fatales, or passive and domestic women of virtue, all of which are based on the traditional conceptualizations of femininity.

In their analysis of gender in film, Benshoff and Griffin (2004) concluded that despite the continually changing conceptions of appropriate female behavior, women in film still continue to be constrained and limited by these passive, archetypal roles and by the sexual objectification in their visual portrayals that are meant to entice the male spectator. This, they claim, is in part due to the male domination of the film industry. Created, directed, and produced by (white) males, films end up depicting a male point of view, thus privileging white men and traditional masculinity. As such, when viewing the "frat" and "sorority" films, it is important to question not only what gender roles are depicted, but also what point of view these depictions force the audience to view these portrayals from.

METHODS

This research was conceptualized as a content analysis of various films that focus on American Greek life. A sample of eight comedic films, four "fraternity" films and four "sorority" films produced between the years 2000 and 2009, were selected from various lists that were supplied online. The content analysis will code and analyze these films for the gendered roles and characteristics that white sorority women are shown to portray. Constructed from two definitions in Scott and Marshall's *A Dictionary of Sociology* (2009), gender role is defined within this study as the social expectations attached to the socially constructed differences between men and women. Along with other depictions of femininity, the content analysis will specifically focus on addressing three characteristics described in the literature review: the thin ideal, sexual control, and cattiness.

This research hypothesizes that film portrayals of sororities construct a specific kind of "sorority fem-

ininity," one that is based on the traditional conceptualizations of gender roles. Furthermore, these film portrayals are hypothesized to be placed in the context of a male point of view, which influences the current perceptions of sorority groups. By examining the differences between the realities of sorority members and the film representations of this social group, this research hopes to develop the concept of "sorority femininity" more fully and expand on how "sorority femininity" adds to the currently popular sorority stereotype. Thus, this research hopes to form a basis from which to discuss how these images may influence not only the general population's perception of sorority women, but also the sorority group's own perception of themselves.

This research is not applicable to all sorority groups. Specifically, this research addresses White sororities and their media images, and so can not be representative of minority sororities, whose socio-cultural histories, gender expectations, and media representations are inherently different. Furthermore, without proper studies on audience reception to these films, any conjectures taken in regards as to how these film representations may be internalized and negotiated may only be understood as an educated conjecture based on the limited information offered by the research results and current literature knowledgebase. To mitigate this, future research can expand to various studies on audience receptions to these films.

CONCLUSION

As Vida (1999) demonstrated, a sorority affiliation provides more than a few good parties and a selective dating pool; it also provides a new, salient, and cohesive identity that young women use to construct and define their collegiate selves. Anchored in and influenced by the Greek system, this new identity is swayed by the traditional gender roles that are encouraged and enforced within Greek society. These traditional conceptualizations of gender, which DeSantis (2007) claimed are interrelated with the most salient issues facing the Greek system, are conceived equally throughout Greek society. However, the performed adherence to these ideals differs with the status of the sorority group, with popular and elite groups holding a stricter enforcement of traditional gender roles (DeSantis, 2007). Although there are many characteristics attributed to the traditional conceptualization of femininity, there are three characteristics that are salient within

sororities: thin ideal, controlled sexuality, and cattiness. Understanding these three characteristics is important because they provide a framework by which to discuss not only a specific conceptualization of sorority femininity, but can also be used to define the sorority stereotype. Thus, these terms, in conjunction with a basic understanding of how the media and film have depicted females and femininity, will provide the necessary framework to analyze the content analysis.

FOOTNOTES

Only one study was found that discussed sorority members in popular media, but this research, to the best of the author's knowledge, was yet to be completed. This research was not included in the literature review due to the lack of permissible use.

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FACIAL PREFERENCES: TODDLERS TELL WHAT THEY KNOW WITHOUT USING WORDS

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ABSTRACT

The current proposal seeks to examine toddlers' preferences for certain faces and to determine when (or if) these preferences change over time. Whereas both girls and boys initially show a distinct preference for female faces (Quinn, Yahr, Kuhn, Slater and Pascalis, 2002), as the child's self-concept develops, this study investigates if boys switch to attending more to male faces over female faces. Children categorize female and male faces into distinctly different groups, and attribute certain characteristics to each group (Ramsey, Langlois, Hoss, Rubenstein, & Griffin (2004). These categorizations and characterizations provide a model for the child to pattern his/her own behavior, depending on the group with which he/she has identified. The results of this study also will provide critical data toward understanding the development of stereotypes, because it will present data as to how a preference for one type of face over another can lead to more positive characteristics being attributed to the preferred face type.

INTRODUCTION

This study has been conducted in an effort to examine the issue as to whether toddlers develop preferences for adults based on their own gender and, if so, what other factors also contribute to this preference, such as the toddlers' self-identification and self-labeling as to gender. The question always has been which of these two factors the child

understands first. Social theorists maintain that by the end of their first year of life, infants have based their understanding of gender on their observations as to how others act (Feinman, 1982). Cognitive theorists suggest that the acquisition of gender-related knowledge is a process that is much more sophisticated than just social referencing (Hort, Leinbach & Fagot, 1991). These findings conclude that the understanding of gender is internally constructed by the child, in direct opposition to the theory that gender identity is acquired through external sources.

There are three major components of self-development in toddlers: mirror self-recognition, photo self-identification, and gender labeling of self and others. Again, the toddler's visual self-recognition develops slowly over time, beginning from about 15 months to 24 months, and most theorists agree that mirror-self recognition comes first, followed by gender-label, and lastly by photo self-identification. Each of these components is discussed in detail in the considered study.

Other theories of self-development discussed here-in are based on research focusing on infants' experience with faces and how that learning is externalized to their environment; how this experience with faces affects visual recognition of and preference for certain faces; and how this preference later leads to categorization and characterization of people.

LITERATURE REVIEW

Because of infants' and toddlers' inability to verbally communicate, most people have wondered what goes on inside the minds of infants and toddlers. The goal of this current proposal is to examine toddlers' preferences for certain faces, and to determine when these preferences change as the toddlers' own self-awareness increases. Although we cannot definitively determine all the effects of these preferences, one possible implication is that they form the basis for the development of stereotypes as the child matures.

In six experiments conducted by Quinn, Yahr, Kuhn, Slater and Pascalis (2002) involving 3-4 month-old infants, the results of the first three visual-preference experiments confirmed a well-tested theory that infants prefer female faces over male faces. Visual preference results in the fifth experiment confirmed that infants whose primary caregivers were male exhibited a preference for male faces. The sixth experiment with female primary caregivers demonstrated better recognition of female relative to male faces.

Whereas the results from Quinn et al. (2002) indicate that the gender of the primary caregiver is a determining factor in facial preferences, another major element is the attractiveness of the face itself. Langlois, Ritter, Roggman and Vaughn (1991) designed three separate studies to assess preferences of six-month old infants for attractiveness in faces of adult White females and males. The six-month olds clearly preferred the attractive faces over the unattractive faces. Langlois, et al. concluded that infants have an instinctive inclination for attractive faces.

In looking at infant preferences for same-race or other-race faces, two experiments conducted by Quinn, Uttley, Lee, Gibson, Smith, Slater and Pascalis (2008) examined whether infants displayed preferences for female over male faces across different racial groups, or if the preferences for female faces only applied to familiar race faces. By the time these infants were three-months old, they showed a definite preference for faces that were the same race and gender as the primary caregiver.

Another study demonstrated that 3-month old Chinese infants preferred looking at faces from their own ethnic group when paired with faces from other ethnic groups. These findings are important because it shows that infants' early experience has clearly influenced their preference for gender as

well as a familiar race. In contrast, it is interesting to note that infants who are exposed to two different racial groups do not show any preference for either group. Therefore, it can be concluded that visual preference for same-race faces may serve as a precursor to stereotype development because these visual preferences for same-race faces are learned preferences based on exposure during early development (Bar-Haim, Sidel, & Yovel, 2009). Because of this demonstrated racial preference, this current proposal will match the photographs used to measure preference according to that of the participants.

Given the importance of early facial experience on the development of visual preferences, Rennels and Davis (2008) designed scales for parents to report demographic information regarding individuals with whom their 2-, 5-, 8-, and 11-month old infants interacted over the course of one week. Boxes needed to be checked indicating the age, gender, race, physical proximity, interaction time and level of interest the infant showed toward the individual. The results of these scales showed that infants had the most interaction with their primary caregivers, then with others of generally the same age, gender, and race as their primary caregivers. Rennels and Davis posited that substantial experience with familiar race females could account for infants' showing a preference for same-race faces (as also concluded by Quinn, et al., 2008), as well as their highly developed ability to recognize their same-race faces (as shown by Kelly, et al., 2007).

Infants' preference for attractive faces or for same-race faces indicates that they may have begun categorizing faces using these cues. Although categorization is important for purposes of group identification, which historically may have contributed to survival of the species, this same categorization may form the basis for stereotyping (Ramsey-Rennels & Langlois, 2006). A study designed to examine whether infants categorize faces as attractive or unattractive showed that they group together high attractive faces and exclude low attractive faces from this group, and that they group together low attractive faces and exclude high attractive faces from this group (Ramsey, et al., 2004). The results of these experiments were significant because it was clearly demonstrated that not only could infants recognize the differences in the individual unattractive faces, but that they had separately categorized the attractive and unattractive faces, and real

ized that each group did not include faces from the other group. These categories may form the basis from which infants begin to link attributes to certain groups.

Between the ages of 9 months and 12 months, these infants begin associating pleasant voices with the attractive faces. By the time they are three years old, children have seen (or perhaps experienced) the difference in the way attractive and unattractive people are treated by others. They also may already have internalized stereotypes and want to be around attractive "others," both adults and children. These early associations may lead to the "beauty is good" stereotype (i.e., linking positive traits and behaviors with attractive individuals (Ramsey et al., 2004). Facial attractiveness guides infants' visual preferences, categorization, and subsequent linking of traits to high and low attractive individuals. A similar developmental pathway may also manifest based on gender preferences.

While the child is observing, acquiring and processing information about his/her external environment, especially those people with whom he/she interacts, the child is also learning and processing information about himself/herself. According to Courage, Edison and Howe (2004), the child's visual self-recognition develops slowly over time, beginning from 15 months to 24 months old. The progression is this development seems to be that the child recognizes himself/herself in the mirror, followed by the use of self-referent personal pronouns, and lastly by recognizing photographs of himself/herself.

Taking self-development to the next level, Lewis and Ramsay (2004) began their experiment with the well-established mirror self-recognition task (i.e., a spot of color placed on the child's nose under the guise of wiping the nose); they then momentarily distracted the child before again showing the child his/her mirror image. The results of this experiment indicated that those children who spontaneously recognized their own mirror image were also those who used more self-referent personal pronouns than those children who demonstrated a lower level of mirror self-recognition. The study that looked at the last phase of this development (photo self-identification), was conducted by showing the child three photographs, one of the subject child and two photos of children the same age and sex as the subject. In some cases, the child was able to identify himself/herself by pointing or by looking longer at

his/her own photo. In other cases, the child failed to identify himself/herself even with encouragement from the researcher, if at all. Through this experiment, Courage, et al. (2004) demonstrated that photograph self-recognition is much more difficult for children and occurs after children are able to recognize their mirror images. This finding is important because it suggests that the children who recognize themselves also have developed to the point where they recognized themselves as being individuals and not connected to another person (Stipek, et. al., 1990).

As the child progressed from self-identification to the more advanced stage of gender identification, Leinbach and Fagot (1986) conducted a two-year study to document natural interactions of children between the ages of 16 and 43 months. These children were subjected to pretests (used solely to determine their ability to complete the necessary tasks), a Child Gender Test (in which they were shown pictures of girls and boys and asked to identify the pictures by gender), and an Adult Gender Test (in which they were asked to use appropriate labels for adults such as "Mommy" and "Daddy"). The results of this study indicated that children could identify the genders of boys and girls when they are as young as 2 years old, and could identify adults by gender at a much younger age. Children may categorize the gender of earlier than children because of their greater experience with adults in the caregiver/child relationship. With respect to other children, it was noted that children who were most adept at gender identification also spent a greater amount of time interacting with others of their same gender. Social experience is therefore important for the development of gender categorization.

Another study conducted by Fagot, Leinbach and Hagan (1986) confirmed that children have more interactions with same-gender children compared to other-gender children. Moreover, children between the ages of 21 to 40 months who could indicate their gender categorization still preferred playing with toys that had been sex-typed for their gender. Their conclusion is supported by the conclusions in a separate study by Lewis and Weinraub (1979) that children "possess gender-related knowledge but do not yet have 'knowledge of the knowledge.'" This interpretation suggests that children's experiences in their own environments influenced their formation of perceptions as to how each gender behaves.

Once toddlers have learned to categorize others into male and female categories and to recognize themselves as being separate from others, their next level of self-development is for them to seek to understand to which of these two groups they belong. It is during this phase that Ramsey-Rennels and Langlois (2006) posit that boys may lose their visual preference for female faces as they pay more attention to male faces. Martin, Ruble and Szkrybalo (2002) suggest that one of the biggest sources of information about gender is observation of the social behavior of a group, where "recognizing personal similarity to one's group" leads the child to use the behavior of that similar model as a guide to how he/she should behave as a member of that group.

The results of these experiments will corroborate the hypothesis that although infants initially show a preference for attractive female faces, they don't exhibit a distinct preference for personal interaction with a specific gender (i.e., females versus males) until they are approximately 28 months old and are able to group other people by gender. By this time, the child's self-awareness has increased to the point where he/she has gender-labeled himself/herself as belonging to one specific gender. Concurrently, the child may have also constructed a schema in his/her mind as to how each gender should behave, and the child should use this information as a model to his/her own behavior. The child also has attributed certain characteristics to groups of faces which will provide critical data toward understanding the development of stereotypes, because it will present straightforward data as to how a distinct preference for one type of face over another can lead to more positive characteristics being attributed to the preferred facial type.

METHODOLOGY

PARTICIPANTS

Toddlers (N=102) aged 18 to 36 months will participate in this multi-task experiment conducted over a two-week period. Three groups will be formed according to age (i.e., 18-24, 25-30, and 31-36 month olds) with 17 males and 17 females assigned to each age group. Although no toddlers will be excluded on the basis of race or ethnicity, there will be exclusions based on prior measures such as not being full term or on task specific criterion (e.g., failure to complete warm up trials, being fussy or distracted).

The participants will be recruited by research assistants from a database of names extracted from birth announcements in local newspapers. Once the contact information is obtained, letters will be sent to the parent(s) of each participant, followed up with phone calls to set up appointments. All of the toddlers will receive either a Baby Rebel tee shirt or bib in exchange for their participation in the experiment, as well as a letter detailing the results of the experiment (not specific to any particular child, but results by age group).

MATERIALS AND PROCEDURE

Stimulus faces for the *Gender Labeling and Gender Preference Tasks* will consist of digitized, color images of 20 male and 20 female faces aged 18 to 35 years, divided into four racial/ethnic groups (i.e., Caucasian, Black, Hispanic and Asian) in order to present faces that closely correspond to the group with which the child most frequently interacts. The photographs will be standardized for brightness, contrast and size using Adobe Photoshop. The faces all will have pleasant expressions, no teeth showing, with a white sheet draped across the chest to hide personal clothing to minimize possible distractions. The male and female stimulus faces chosen for the experiment will be those rated by independent groups of approximately 40 undergraduate students in terms of attractiveness of the face, using only those faces on the higher end of a Likert-type scale, with 1 being "not very attractive" and 5 being "very attractive."

Stimulus faces for the Photo Self-Identification Task will consist of two digitized photographs of 2-3 year old boys and girls, as well as photographs of the actual children participating in the study. The digitized photographs will be closely matched to the actual participant's photograph so that the children in each grouping of three photographs (i.e., the participant plus two other children) will be similar in terms of race or ethnicity and hair color; moreover, the sex of the children in each grouping will always be the same.

PROCEDURE AND MEASURES

During the initial visit to the lab, the researcher will explain the studies to parents and have parents sign Informed Consents and provide voluntary demographic information regarding the family. Parents will be given modified versions of the Infant-Individual Interaction Scale (IIIS) and the Infant-Caregiver and Family Member Interaction

Scale (ICFMIS) (Rennels & Davis, 2008) which the parents will use to record demographic information of the person with whom the toddler interacts in terms of age, race, and the amount of interaction time spent. Parents also will record the toddler's level of interest toward the person. The parents will receive very detailed instructions (with examples) on how to record data on each scale.

FACIAL EXPERIENCE SCALE

The first scale, the IIS, will be used by the parent to record the toddler's interaction with strangers or with people only slightly known to the toddler. The ICFMIS is identical to the IIS scale, but this scale will be to be used to record information regarding the toddler's interactions with people well-known and with whom the toddler often interacted.

Parents will return to the lab during the two weeks following completing the scales to have their toddlers participate in six tasks, all of which will be conducted with the parents sitting quietly in the room. When necessary, researchers will present "warm up" trials to the toddlers to make sure they understood and are capable of performing the required tasks. All trials will be videotaped, which research assistants later will code for specific behaviors.

GENDER PREFERENCE

The purpose of this task is to determine if toddlers prefer viewing female or male faces. There will be four "warm up" trials during which the child will look at paired gender-neutral items on a touch-screen display (e.g., TV, eyeglasses, camera, crayons, ice cream cone, telephone, tricycle, book, etc.) and will be directed by a neutral synthesized voice to actually "touch the item you like best." After warm-up trials, the child will be shown pairs of high-masculine males and high-feminine females and again asked to touch the image they like best. To ensure this new task is valid, 33% of participants also will participate in a Classical Visual Preference task in which children will view pairs of high-masculine male and high-feminine female faces. Rather than being directed to touch the preferred face, the direction and duration of their passive gazes will be videotaped for subsequent preference coding by research assistants.

SELF-RECOGNITION (MIRROR SELF-RECOGNITION)

The child will be seated at a table in front of a mirror and encouraged to examine his own image for approximately 90 seconds to establish a baseline for

individual behavior in front of the mirror. Pretending to wipe the child's nose, the caregiver will apply a spot of paint on the child's face and direct the child's attention back to the mirror. If the child touches the spot of paint on his own face, then that provides evidence for self-recognition (Courage et al., 2004).

SELF-DEVELOPMENT

This questionnaire will ask parents to identify four factors that could be used to measure their child's self-concept. Parents will score the child either as 1 ("has sort of displayed the behavior"), or 2 ("has definitely displayed the behavior").

GENDER LABELING OF ADULTS

For the warm-up trials, the children will be asked to identify pictures of animals and familiar objects. These trials will be used only to assess the child's ability to follow directions. Then, children will be asked to identify stereotypical pictures of women and men by pointing to either "Mommy" or "Daddy," (or "woman" or "man" for those children who do not respond to the "Mommy" or "Daddy" terms).

PHOTO IDENTIFICATION

The purpose of this task is to determine when children can distinguish themselves from same-age, same-sex peers. The child will be shown three photographs on the touch-screen display and an experimenter will ask the child to identify himself/herself within 30 seconds; recognition will be measured by the child identifying his/her own photo by pointing, by verbally indicating, or by exhibiting an extended stare at his/her photo. If the child does not perform the task spontaneously, a prompt will be used, such as "Who's that?" or "Where is (name)?" followed by 60 seconds during which the child can respond.

GENDER SELF-LABELING

The purpose of this task is to assess the toddler's awareness of his/her own gender identity. For instance, the experimenter will ask the child three times, in random order, "Are you a boy?" "Are you a girl?" and "Are you a boy or a girl?" and at random times during the course of the study (e.g., after the first preference task, between the third and fourth tasks (or at the end of the second session), and again at the very end of the study).

All data will be broken down by age and gender, and we will use multiple regression analysis in which scores from all tasks will serve to predict the out

come in the preference task. The results of these experiments will corroborate the hypothesis that although infants initially show a visual preference for female faces, they do not exhibit a distinct preference for personal interaction with females or males until they are approximately 28 months old and are able to group others by gender. These results also should give a clear indication as to what other specific factors lead to the development of this gender preference. These categorizations and characterizations provide a model for the child to pattern his or her behavior, depending on the group with which he or she has identified. The results of this study also will provide critical data toward understanding the development of stereotypes, because it will present data as to how a distinct preference for one type of face over another can lead to more positive characteristics being attributed to the preferred face type.

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OPTIMAL COMMUNICATION MEDIA & FREQUENCY FOR ORGANIZATIONAL GROUP COMMUNICATION

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ABSTRACT

Despite the widespread use of various communication media, there remain unanswered questions on their efficacy, most notably how they relate to a group's performance, as well as group cohesiveness. Face to face (FTF) communication and computer mediated communication (CMC) are the two major classifications of communication media, and they are both found to have benefits and drawbacks in regards to organizational group communication. This paper will explore these communication issues, as well as determine the usage and benefit of new communication technologies, such as text messaging and video conferencing. Additionally, this study includes valuable information regarding how various communication media affect group cohesion and conflict resolution. Based on qualitative and quantitative data, it appears that a mix of communication still remains optimum for successful group project completion. However, face to face communication is notably more beneficial for communication involving decision making.

INTRODUCTION

There has been a proliferation of communication media within the past decade. While communication technologies once were limited to face to face communication, phone, and then email, they now include video conferencing, blogging, social networking utilities, and text messaging, among others. These new

communication technologies enable people to stay updated and in contact with people they would have otherwise had difficulty communicating with, especially due to time and geographical constraints. Consequently, they have been utilized by many professionals. Despite the widespread use of various communication media, there remain unanswered questions on their efficacy, most notably how they relate to a group's performance, as well as group cohesiveness.

Although there has been considerable research conducted on the effectiveness of various communication media, it has been inconclusive. Face to face (FTF) communication and computer mediated communication (CMC) are the two major classifications of communication media, and they are both found to have benefits and drawbacks in regards to organizational group communication. This paper will explore these communication issues, as well as determine the usage and benefit of new communication technologies, such as text messaging and video conferencing. Additionally, this study includes valuable information regarding how various communication media affect group cohesion and conflict resolution.

Based on preliminary research, the principal hypothesis is that groups that primarily use face to face communication for communication involving decision making will score better in terms of project perfor

mance and measures of group cohesiveness than groups that use a variety of communication media for communication involving decision making.

LITERATURE REVIEW

Various studies have explored the efficacy of face to face (FTF) and computer media communication (CMC), and they have found that there is a variety of costs and benefits to each method. Overall, there has not been a consensus among researchers about whether face to face or computer mediated communication groups fared better in regards to overall performance on group projects. In a synthesis of 18 experimental studies, Bordia (1997) found that "findings regarding quality of performance, uninhibited behavior choice shift, attitude change, and evaluation of communication partner are not definitive". Further, Bordia posits that CMC discussions tend to take longer, produce more ideas, and involve more equality in regards to involvement. However, Bordia found that "there is reduced normative pressure and poorer comprehension of the discussion in CMC" (Bordia, 1997).

A study conducted by Zack (1994) of electronic messaging and communication effectiveness in an ongoing work group found that communication was more effective when FTF was used to build or share interpretative context, when electronic communication was used within an existing context, or when communication media and procedures conformed to the expected modes of communication (Zack, 1994). Researchers Barkhi, Jacob, and Pirkul (1999), however, found that groups utilizing FTF communication outperformed groups who used CMC communication.

Virtual teams tend to be more successful than face to face teams in regards to idea generation, as well as the comfort group members have expressing their opinions. However, virtual teams also have their drawbacks. Research by Potter and Balthazard (2002) found that virtual teams tended to be less successful than face to face teams on a majority of measures. Additionally, they summarized research that found that computer mediated communication groups (CMC) do have benefits over face to face groups. Individuals in CMC groups were better able to express strong opinions, and they also had an increased ability to evaluate group member's work (Potter & Balthazard, 2002). Weisband and Atwater (1999) add further support for this claim with their finding that ratings of liking exhibited less bias to rat-

ings of contribution for CMC groups than for FTF groups (Weisband & Atwater, 1999).

There is a notable benefit for CMC groups when considering idea generation. After conducting a literature analysis, Curseu, Schalk, and Wessel (2008) found that groups that utilize computer media communication for idea generation tend to be able to generate more ideas in group meetings when compared to FTF groups (Curseu et al., 2008). The researchers cited several other studies which found that CMC groups are superior to FTF groups in terms of the quantity of ideas generated because of the anonymity that CMC offers (Dennis et al., 2001; Kerr and Murthy, 2004; Baltes et al., 2002). However, Curseu et al. (2008) determined that CMC groups perform less favorably than FTF groups when the participants are not anonymous or when the task completed is considered "intellective or mixed-motive". Additionally, CMC groups took longer to reach a conclusion than groups communicating FTF (Curseu et al., 2008).

While CMC group members often feel less inhibited while sharing ideas and making decisions, Potter and Bathazard (2002) found that people's personalities still affect how they communicate on virtual media with their group members. The researchers quoted studies which found that extroverts were more likely than introverts to share their opinions using CMC (Straus, 1996; Yellen, et al., 1995). Potter and Bathazard concluded that introverts in CMC groups tend to feel more comfortable sharing their opinions, while extroverts are able to communicate their influence in both FTF and CMC settings (Potter & Bathazard, 2002).

There was disparate data when considering the effectiveness of decision making between FTF and CMC groups. Some studies found that decision making quality was equivalent in FTF and CMC groups (Dennis et al., 2001). Orlitzky and Hirokawa (2001) found that the time spent in generating decisions is the least crucial predictor of the effectiveness of the decisions, therefore minimizing the importance of the disparity in decision making time for FTF and CMC groups (Orlitzky & Hirokawa, 2001). Despite these benefits, Han (2004) found that virtual teams that utilize mobile devices for communication were found to have difficulty with decision making. Additionally, virtual teams that used mobile devices for group communication were found to be less task-focused, instead focusing on developing a friendship and communicating more frequently (Han, 2004).

Effective leadership has a significant impact on the success of a team, and researchers have found that FTF and CMC communication differs in regards to the leadership roles that members take. George and Sleeth (2000) posit that CMC groups "will require a set of traits, skills, abilities, and leadership styles different from those required in the FTF communication environment." Additionally, they assert that CMC can aid in "flattening" organizational structure and enabling emergent leadership in teams that do not require supervisors (George & Sleeth, 2000). However, Weisband, Schneiger, and Connolly found there was a persistence of status in anonymous groups, which belied other research which found that there was an equalization caused by anonymity and de-individualization (Weisband et al., 1995).

Computer mediated communication also has a significant impact on group cohesion, ranging from the comfort group members have communicating with each other and the desire to work with group members in the future. Burgoon et al. (2000) found that FTF communication fostered more receptivity among members than CMC communication, which enabled the group members to have more positive long term interaction (Burgoon et al., 2000). Researchers Walther and Bunz (2005) have determined that communication rules in virtual settings help to establish trust and liking between group members and helps to reduce uncertainty (Walther & Bunz, 2005).

METHODOLOGY

In order to test the hypotheses, surveys and interviews were conducted during the months of July and August 2009. The interview sample included 16 individuals who worked for the City of Henderson in the departments of Parks and Recreation, Community Development, and Redevelopment. The survey was given to the same professionals who were interviewed, and 14 of them completed it, making the survey response rate a favorable 88%. The interviews ranged in length from 10 minutes to 55 minutes, and they were audiotaped. The survey was available electronically, and the estimated time of completion is 10-20 minutes. The interview was completed before the survey for all respondents.

The professionals in the sample had all recently finished a group project and they had all worked on several group projects recently in their careers with the City of Henderson. Additionally, they had all worked on group projects with professionals who

also worked in their organization. The survey and interview questions focused on group communication that occurred with group members who worked for the same organization as the respondents, though some of the group members were independent contractors. Communication with independent contractors was not gauged in the survey questions because of the focus on internal group communication that was not hindered by organizational or significant geographical constraints.

Eight of the sample interview respondents were considered to be at a lower employment level than the other six who were primarily managers and project supervisors. There were different sets of interview and survey questions for employees and for supervisors. In order to be considered a "supervisor" for interview and survey purposes, the individual must have primarily served as a supervisor in their recent group projects. Additionally, the respondents must have also verbalized their comfort to the researcher about being considered a supervisor for purposes of this study.

Respondents were made aware of the purpose of the study before they were interviewed. The researchers did not feel that this information was sensitive, nor that the information would influence the answers respondents would give to the survey or interview questions.

QUALITATIVE FINDINGS

Most respondents agreed that the most widely used communication media in their organization included face to face meetings, email, and phone conversations. An equal number of supervisors and employees expressed their liking of new communication tools, including text messaging and video conferencing. The majority of respondents agreed that face to face meetings were most helpful for particular situations. These situations involved decisions making and team building. A majority of interview respondents agreed that email was useful for sharing information and for discussing procedural arrangements, such as meeting times or project details. Additionally, most respondents touted the benefit of accountability that email offers, often stating that it aided in keeping a paper trail that could be referred back to if a group member did not fulfill their obligations.

A large majority of respondents reported that they did not think that computer mediated communica

tion had a negative impact on group cohesion. Many supported this claim by mentioning that email enabled them to keep in touch with group members more frequently than face to face meetings and that based on the busy schedules of most professionals, it would otherwise be nearly impossible to stay in contact with all group members without electronic communication. All of the respondents said they would go speak to a coworker or group member face to face if they had the time and were in close proximity to them. According to respondents, it is likely that group members will communicate in person for spontaneous communication if they work in the same department, and they will be likely to favor phone conversations or email for coworkers who work in different departments or with independent contractors. Additionally, some respondents asserted that electronic communication is extremely crucial in their organization and that it is difficult to imagine how they would finish projects effectively without it.

There was a large divide in respondents about whether they prefer to use telephone conversations or email. Email was the preferred method for communication involving sharing information, while phone conversations were more preferred for quick communication involving decision making when face to face communication was not possible. Additionally, email was preferred because it can be sent to a whole group (or a whole department), while phone conversations were reserved for one on one discussions. A minority of respondents posited that phone conversations were used less frequently when they were contacting a group member who they had not previously become acquainted with. However, most respondents agreed that they would prefer to meet in person with a group member they had not previously worked with.

Respondents were also divided on their feelings towards communication media with coworkers who they had previously worked with. Some respondents voiced that they would prefer to communicate by phone or email with a coworker they had previously worked with because they had a shared context, while other respondents preferred to communicate in person with coworkers they were already acquainted with because they enjoyed spending time with them on a personal level.

The majority of respondents preferred to commu-

nicate using CMC with group members that they did not like on a personal level, which has important implications for management. If employees continue to prefer CMC with group members who they do not like on a personal level, it is likely that there will continue to be conflict between these workers and it will hinder the group's project process, as well as their group cohesiveness. It is important that supervisors consider intergroup relations when determining the communication media that a group should use. In order to reduce strife, a group should utilize face to face communication more often if they are beginning to exhibit conflict. Some respondents said that although this communication may be awkward at first, it would likely enable the group to better focus on achieving their goals.

QUANTITATIVE FINDINGS

The quantitative findings offered a helpful look into the group communication process, most notably which communication media have been shown to be most effective. The data for group members is shown in the graphs for Table A. As shown in Table A-3, in person (FTF) communication was strongly related to project performance, while phone conversations were negatively related and email had no effect. General cohesiveness as measured by frequency of media use (Table A-1) is relatively stable for most communication media, with the exception of email, which displays a very weak relationship. Email also had a negative relationship with conflict resolution (Table A-2), though phone conversations, handwritten notes, and in person meetings were shown to be more correlated with positive conflict resolution.

The data gathered for supervisors significantly differed from that of group members, and is shown in the graphs in Table B. Table B-1 shows that new communication media and handwritten notes are more likely to influence supervisors to want to work with employees in the future. This has significant implications for managers because it may represent that supervisors are able to improve their group cohesion by utilizing a variety of new communication media with group members. Table B-2 shows that supervisors are likely to have more perceived group member support when they utilize in person meetings, phone conversation, and various other communication media, with the exception of email. Email was once again showed to have a

Table A-1

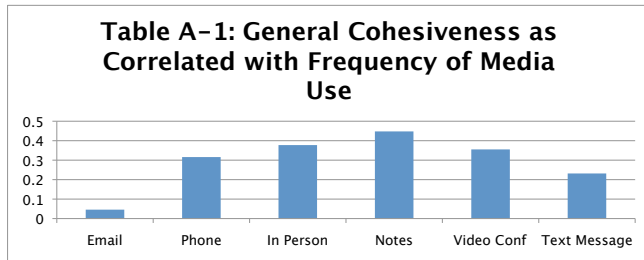


Table A-2

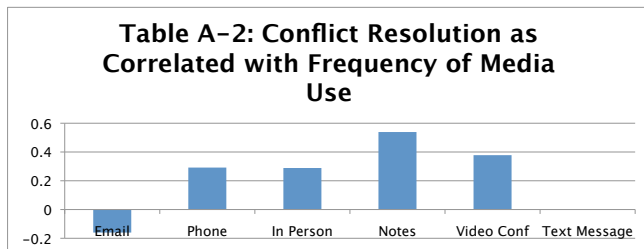


Table A-3

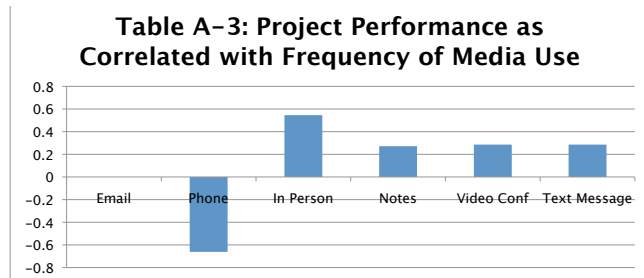


Table B-1

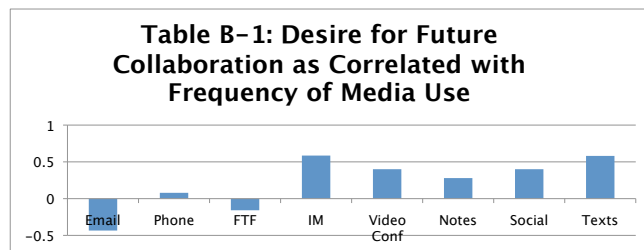


Table B-2

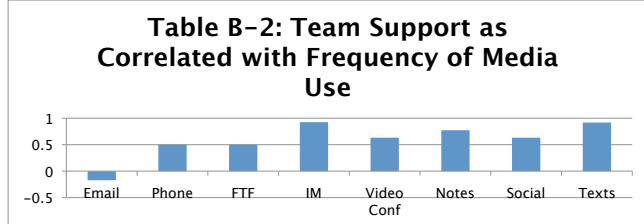
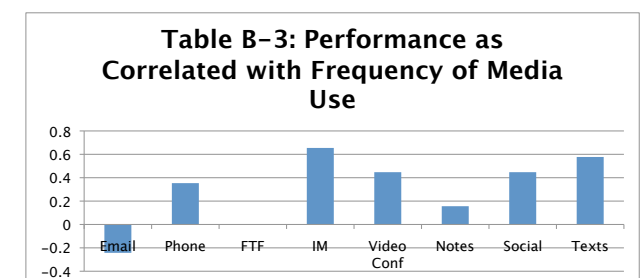


Table B-3



negative relationship to team support.

Table B-3 shows supervisor performance in relationship to media frequency. This graph shows that new communication media, such as text messaging, was shown to have a very positive relationship to performance, while phone conversations were also beneficial. Interestingly, face to face meetings were shown to not have a relationship with team performance. It is theorized that this could be due to the structure of team meetings and that they are required. New forms of communication media may provide group members with feelings of perceived group member support, which enabled them to have more effective group communication, leading to an increase in performance effectiveness.

CONCLUSION

There was a notable disparity between the qualitative and quantitative results. Qualitative data provided substantiation for the view that face to face meetings, phone conversations, and email would provide a group with the optimum communication mix. However, quantitative results showed that it was more beneficial for groups to utilize a variety of media, specifically new communication media which help to build group member support. Based on the findings, it appears that a mix of communication still remains optimum for successful group project completion. However, face to face communication is notably more beneficial for communication involving decision making.

In order to ensure reliability, the researchers of this study are continuing this research throughout the fall of 2009. The research will include an increase in sample size ($n=40$), as well as a more diverse sample that includes professionals from the City of Las Vegas and from various private organizations.

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SMOKE GETS IN YOUR EYES: A CRITICAL ANALYSIS OF THE RESEARCH ON ANTISMOKING CAMPAIGNS

BY MICHELLE ISRAEL



ABSTRACT

The purpose of this paper is to examine the research that has been conducted thus far on antismoking campaigns aimed at adolescents. The paper will review a selection of articles that have used different research methodologies to determine what makes an antismoking campaign successful. The paper will also analyze what areas need improvement and what areas can be further explored for future research. An experimental design will be proposed that is a more comprehensive study with a large sample size covering multiple ethnicities. The goal of the paper is to provide a critical analysis of the existing literature on antismoking campaigns and to propose an experimental design that attempts to further the scope of antismoking campaign research. Most current research covers a broad spectrum and does not comprehensively examine areas such as culture and ethnicity among adolescents. It is possible that these variables may determine the effectiveness of antismoking campaigns.

INTRODUCTION

The main ingredient of a cigarette, tobacco, "is the second major cause of death and the fourth most common risk factor of disease worldwide" (Uusitalo & Niemela-Nyrhinen, 2008, p. 29). However, the cigarette industry has no difficulties selling their product. They make sixty-five billion dollars a year; three billion of those dollars is spent on advertising alone

(Jhally, 1992). It is necessary for this industry to generate a large amount of income because tobacco production is costly. It includes public health costs and decreased usage from current users who have increased in sickness (Uusitalo & Niemela-Nyrhinen, 2008). It is possible that due to the high production costs and loss of current users to illness, the cigarette industry attempts to obtain new, young users. Being able to attract potential smokers at a young age will allow tobacco companies the ability to continue to fund their businesses. There was some controversy as to whether or not the cigarette industry did actively target adolescents with their advertisements. A lawsuit in 1997 resulted in the tobacco companies funding antismoking campaigns in order to curtail their influence on children's intent to smoke (Pechmann, Zhao, Goldberg & Reibling, 2003).

The amount of antismoking advertising campaigns in the United States has increased since the lawsuit. As of 2006, twenty-four states in the US have created antismoking advertising campaigns (Pechmann & Reibling, 2006). The money that is spent on these campaigns does not rival the cigarette industry's yearly earnings, but is still costly. From 2000 through 2004, the truth[®] campaign spent \$245 million on antismoking advertising (Farrelly, Nonnemaker, Davis & Hussin, 2009). However, in recent years the current funding for state and national antismoking campaigns is declining (Farrelly et al.). This decline may be caused by the cur-

rent research on antismoking advertising campaigns.

Several research studies have been conducted to determine the effectiveness of antismoking campaigns. The purpose of much of the research was to see if adolescents are understanding the messages the antismoking advertisements are trying to convey and if the antismoking advertisements lower smoking intent. The results across most of the research studies were fairly similar; the majority of the antismoking advertising were determined to be largely inadequate for adolescents.

EXISTING RESEARCH AND THEIR FINDINGS

The current research of antismoking campaigns have shown that the majority of the campaigns are ineffective (Fishbein, Hall-Jamieson, Zimmer, Haeften & Nabi, 2002). The types of antismoking advertisements that are most affective for adolescents also seems to remain constant across different research studies. The most effective antismoking advertisements appear to be those that portray smoking as socially unacceptable among peers. Uusitalo and Niemela-Nyrhinen (2008) found that advertisements portraying social approval or disapproval tend to be more effective than advertisements that portray the health risks of smoking and advertisements that portray smokers as unhappy. Pechmann and Reibling (2006) believe that advertisements portraying disgust are effective in promoting empathic responses and are perhaps the most effective way to display smoking as a socially unacceptable behavior. For adolescents, advertisements that show what is socially acceptable among their peers allow them to determine what behaviors allow them to fit in.

There is one antismoking campaign that appears to be successful in lowering smoking intentions for adolescents. Throughout 2004, The Truth® campaign prevented approximately 450,000 adolescents from smoking across the nation (Farrelly et al.). This particular research study also examines ethnicity as an important factor in determining smoking intent. Being of African American or Hispanic descent correlates negatively with smoking initiation (Farrelly et al.). Interestingly, there has not been much research on how ethnicity may determine the effectiveness of antismoking advertising campaigns. It may be because specialized research is costly and many research institutes don't want to spend the money. However, the few research studies that examine ethnicity as a factor for determining smoking and antismoking behaviors

have been contradictory. In Terry-McElrath et al's 2007 study, they found that even with exposure to anti-smoking advertisements, Asians were still susceptible to high smoking intentions.

What is interesting is how researchers constantly neglect to further explore certain variables that may determine the effectiveness of antismoking advertisements. It is necessary to examine the research closely in order to discover any inconsistencies in the data or inconclusive results.

AREAS FOR IMPROVEMENT

For the current literature on antismoking campaigns, there are various criticisms that need to be examined. For example, there are various types of antismoking advertisements but no formal classification system. Researchers appear to label antismoking advertisements in a variety of ways. There needs to be a guideline on what grade levels to include making sure the demographics are as evenly split as possible.

The literature on antismoking advertisements needs to include more specialized research even if funding for it is limited. Existing research shows that the ethnicity of the audience influences the effectiveness of advertisement campaigns. A state by state comparison shows that antismoking advertisements are less effective for Asian adolescents. The population sample was small, so it would be interesting to conduct a research study that examines a larger sample size.

When analyzing antismoking campaigns, one must consider who funds the research. Most of the research covers a broad spectrum of subjects ranging from middle school to high school. Much of the research takes place in various parts of the country, resulting in inconsistent population samples. This is a troubling thought, since much money and effort is put in to creating these advertisements.

FURTHER RESEARCH PROPOSAL

One possible research design could involve surveying the cities beforehand and determining what areas of the cities have a high Latino, Asian-Pacific Islander, African American and Caucasian population. This preliminary survey can help to ascertain that the study will reach many children of various backgrounds. Middle schools and high schools located in high ethnic areas of the cities will be chosen. The study will examine students in grades 7 through 12, because

children in this age group are the most likely to be targeted as new smokers (Jhally, 1992).

The study will contain various antismoking television advertisements from the truth® campaign and state antismoking campaigns. These advertisements will be examined beforehand to determine what type messages the advertisements are trying to portray. The majority of the advertisements will either focus on disgust, health concerns or peer approval because these are believed to be the most effective types of ads based off of the current research. All students will be able to sign consent forms as well as their parents. If the parent or the student doesn't sign a consent form, the child will not be able to participate in the study.

The study should take place during a class that students across grades 7 through 12 have to take, preferably english, math or science. The students will watch an educational video with antismoking advertisements inserted into the commercial breaks. After the video is finished, the students will fill out a survey asking about how the antismoking advertisements made them feel. For the control group, they will watch innocuous advertisements during the video and then be asked about their feelings on antismoking advertisements in general. Both the control and experimental group will answer survey questions about how their cultural heritage and ethnic background might affect their views on smoking intent and behaviors.

The answers to the survey questions will determine if their ethnic and cultural background and socioeconomic status affect their beliefs about smoking and intent to smoke. The data will be collected, scored and kept in a computer. Afterwards, it will be analyzed. The results will determine if these variables do play a part in the effectiveness of antismoking advertisements.

FUTURE RESEARCH

The current research on antismoking advertisement campaigns is fairly comprehensive. Specialized researched is needed because there have been a few discrepancies regarding the effectiveness of antismoking advertisements based on ethnicity. This type of research could be crucial in determining whether or not a different ethnic background is a controlling factor on the effectiveness of antismoking advertisement campaigns.

Another area in which further research can be done is

the impact of media literacy programs and if they can help lower smoking intent. If research done in this area does prove to be effective, then testing the affect of a media literacy program with other ethnicities maybe be beneficial. Socioeconomic status and a world-wide comparison would be interesting to study further.

CONCLUSION

The current research data, while fairly extensive, is still broad in scope. There have not been many studies that focus on how culture, ethnic background, socioeconomic status or gender may affect how successful an antismoking campaign will be. Further research needs to be conducted to determine if these factors are relevant to the successful of antismoking campaigns. If there is significant data, then the advertisements shown on television will have to be completely remodeled.

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ANALYSIS OF ACTIVITY PROFILE OF SOCCER ATHLETES AND REFEREES

BY CRISTINA MACKE



ABSTRACT

A common and often overlooked scene in a competitive soccer match is the athlete that ends up playing the entire game. Naturally, this extended duration of intensity-laden activity will bring about some form of fatigue. A method for combating this game related fatigue is a proper training program that will increase the individual activity profile of a player, allowing the player to perform more activities without the influence of fatigue. In order to set up an effective training program, information regarding player work rate during the game is essential. Therefore, it is beneficial to review research that outlines the general activity profile of top-class soccer athletes and referees.

INTRODUCTION

The purpose of this literature review is to examine past research regarding the activity profiles of soccer players and referees. Previous research will be analyzed to determine whether adequate information exists in promoting the enhancement of training programs for the benefit of competitive soccer matches. Aspects of the activity profile that will be analyzed are heart rate, distance traveled, and speed and duration of locomotor activity. This study will also briefly review methods of past studies used to determine the intensity profiles for athletes and referees. Such information could be useful in creating optimal training sessions that would increase activity potential during competitive soccer matches.

Much may be benefitted from by understanding athletes' physical capacities during games. Training seems to be the most acknowledged reason why such research is significant. With proper information regarding a player's work rate, one can determine the best training methods that will enhance game play. When it came to professional referees, Castanga, Abt, and D'Ottavio [2] concluded that, "The information gained regarding the activity profile of international refereeing could then be used to develop specific training drills or for the development of competition-dependent fitness standards" [2]. In addition, tailoring a training program to enhance match play could make a significant impact on the outcome of a game.

This analysis of past studies will attempt to determine whether data previously acquired is accurate enough to be the basis of a training program. The information presented will contribute to this field of study by combining numerous research analyses into one generalized study that will allow the reader to make an informed decision in a brief amount of time. This study will allow people to quickly determine whether sufficient information exists in providing them a better physiological understanding when creating a training program for their soccer athlete. Although my method for this study is reviewing research, and not actually experimenting with subjects, this study still provides a valuable source for enhancing the understanding of knowledge in this field.

HEART RATE

For a number of years, experimenters have been conducting research and compiling statistics to come up with an accurate generalization of the amount of energy exerted during a soccer game. Heart rate is one method used to analyze athletes intensity [5, 6, 7]. It was noted that female soccer players experience a mean heart rate or 87% (81-93%) of HRmax during matches and reach near-maximal heart rate percentages (97% HRmax) at some point during the game [5]. The same can be said for male soccer referees (mean 78 +/- 4% and 86 - >96%) taking into account variation due to physical capacity [6]. In slight contrast, Krustup and Bangsbo measured the average male referee heart rate during play at 85% (74-91%) whereas their peak was similar to earlier results of 97% HRmax [7]. It should be noted that all three of these experiments used similar instruments for the calculation of heart rate. The female soccer players and the subjects in Krustup and Bangsbo's experiments were tested using Polar Vantage NV heart rate monitor (Polar Electro Oy, Kempele, Finland), which recorded in 5 second intervals, while the referees were tested using the Polar Team System (Polar Electro Oy, Kempele, Finland), also recorded in 5 second intervals. Similarities between instruments increase the reliability and precision of the acquired data. However, just because data is similar, does not necessarily mean it is useful in determining intensity rates.

The study of female soccer athletes found no relationship between percent of HRmax and the tests (VO2max, ITT test, running at 2mM, and the Yo-Yo intermittent test) aimed at predicting intensity level during match play [5]. The study of professional male referees found an individual relationship between mean heart rate and the amount of high-intensity activities performed during match play [6]. Despite the lack of significant correlation, Mallo et al. suggests the average total distance covered (5.8 km) along with a mean heart rate that corresponds to 78 +/- 4% of HRmax, "...should only be used as raw estimators of the global exercise intensity experienced when assistant refereeing" [6]. Research suggests that heart rate is not the most accurate determiner of high-intensity activity during soccer games [5, 6, 7, 10].

DISTANCE

One of the most common methods studied when trying to determine activity profile during matches is distance covered by a player or referee. Experimenters used a wide variety of instruments to calculate distance including VHS format-cameras (NV-M50,

Panasonic, Germany) along with pre-markers [1], a multiple-camera match analyses system (Amisco Pro, version 1.0.2, Nice, France) [9], JVC GY-DV500E cameras in conjunction with a bi-dimensional photogrammetric system [11], and ProZone Version 3.0 multi-camera computerized tracking system (ProZone Sports LTD, Leeds, UK) with a sampling frequency of 10 Hz [12]. The average total distance covered by a male athlete during the length the soccer games reviewed ranged from 10.3-11.4km [4, 5, 7, 9, 11, 12]. Data from Weston et al. indicates the total distance traveled during the first half of match play (5,832m) was greater than total distance traveled during the second half (5,790m) [3]. Several more experiments [1, 4, 6, 10, 11] agreed the distances in the second half of game play were significantly shorter than distances covered in the first half.

However, a study published in 2006 concluded that, "Although a longer distance was covered during the first half (5,709m vs. 5,684m), this difference was not significant [9]. Krustup, Mohr, and Bangsbo noted that the distance covered during the first half under low-intensity running which included jogging, low-speed running, sideways running, and backwards running, was greater than in the second half of play [1]. Interestingly enough, distance covered during the first half under high-intensity running which included moderate-speed running, high-speed running, and sprinting, remained constant [1]. Mohr, Krustup, Bangsbo concluded that players under certain research conditions showed a decrease in high-intensity running from the first to the second half [4]. But once again, the same 2006 study argued that its research did not show a decrease in high-intensity work-rates towards the end of a game [9].

When designing a training program one must understand the playing position of the athlete to be trained. Studies have shown significant differences in the activity profiles of players in different positions [1, 2, 3, 4, 5, 6, 7, 9, 10, 11]. Mohr, Krustup, and Bangsbo noted that midfielders, fullbacks, and attackers cover a greater total distance and high-intensity running distance as compared to defenders (11.00 +/- 0.21, 10.98 +/- 0.23, 10.48 +/- 0.30 vs. 9.74 +/- 0.22km and 2.23 +/- 0.15, 2.46 +/- 0.13, 2.28 +/- 0.14 vs. 1.69 +/- 0.10km) [4]. Bradley et al. and Di Salvo et al. had similar data stating wide midfielders [12] and central midfielders [9, 12] cover greater total distance (11,535m and 11,450m; P < 0.01) and high-intensity running distance (3,138m and 2,825m) compared to fullbacks (10,710m and 2,605m), attackers (10,314m

and 2,341m), and central defenders (9,885m and 1,834m) [12]. It has also been observed that central defenders (344m vs. 276m), fullbacks (481m vs. 389m), central midfielders (534m vs. 429m), wide midfielders (589m vs. 467m), and attackers (438m vs. 348m) experience the greatest decrements in high-intensity running from first to second half play [10, 12]. The decrease in distance covered from the first to second half of play was also noted when studying referees and assistant referees [1, 3, 6, 11]. Krusturup, Mohr, and Bangsbo indicated the distance covered by assistant referees during the first half was 3.73 \pm 0.07km and decreased to 3.55 \pm 0.12 in the second half of the game [1]. Weston et al. showed a decrease in distance covered from 5,832m in the first half to 5,790m in the second half [3]. Data obtained from two different studies also show significant decrements in first and second half total distance covered (2,973 \pm 343 vs. 2,779 \pm 303m and 5,699m vs. 5,360m) [6, 11]. However, even with multiple studies concluding decrements in total distance between matches, Krusturup and Bangsbo caution:

The total distance covered during a game is a poor measure of the physical stress of a referee during a match, since standing, walking, and jogging account for more than 75% of activity. The amount of high-intensity exercise is a better indicator of the demanding periods of the game and the development of fatigue [7].

Krusturup and Bangsbo go on to support their point by comparing data from referees who completed additional exercise training to those referees who did not.

A twelve week training program comprised of three to four training sessions per week consisting of intermittent running at heart rates above 90% of individual HRmax. The authors used data from this experiment to conclude that, "After the intermittent exercise training, the total distance covered during a game was unaltered, whereas the distance covered during high-intensity running was 23 \pm 8% higher ($P < 0.05$) than before intermittent exercise (2.06 \pm 0.13 vs. 1.69 \pm 0.08km)" [7]. Data in regards to distance, especially this last conclusion, is interesting to note and could be taken into account when preparing to design an effective training program.

VELOCITY

A third tool experimenters used to gain knowledge about the intensity profile of individual athletes was

through the study of speed and duration of locomotor activity. Information related to speed and duration is similar to total distance covered but discusses the amount of time a locomotor activity was performed in percentages of game play. All the reviewed studies had different categories for the different locomotor activities. One study analyzing the activities of assistant referees found that the duration of match play activities were 43.9% standing, 32.8% walking, 19.3% low-intensity running, and 4.1% high-intensity running [1]. Another study determined that assistant referees stood 48.3%, walked 24.6%, jogged 16.6%, cruised 6.1%, moved sideways 29.5%, and ran at high-speeds 4.4% of total match play [6]. A review of main referees concluded that the amount of time spent standing, walking, running at low-intensities, and running at high-intensities were 21.8%, 41.4%, 30.2%, and 6.6% respectively [7]. Another review of main referees differed, concluding that the amount of time spent standing, walking, jogging, cruising, and sprinting were 27.4%, 30.3%, 25.5%, 12.2%, and 4.6% [11].

When it came to soccer players, Mohr, Krusturup, and Bangsbo compared the activity profiles of top-class and moderate professional male players. Experimenters found that top-class male players produced greater percentages compared to moderate male players in high intensity running (8.7% vs. 6.6%), sprinting (1.4% vs. 0.9%), and backwards running (3.7% vs. 2.9%) but that both groups produced the same percentages when it came to standing (19.5%), walking (41.8%), and low-intensity running (29.9%) [4]. In another study, Bradley et al. calculated the duration of locomotor activities to be 5.6% standing, 59.3% walking, 26.1% jogging, 6.4% running, 2.0% high-speed running, and 0.6% sprinting [12]. In a study of female soccer athletes, data showed standing, walking, running at low-intensities, and running at high-intensities accounted for 16%, 44%, 34%, and 4.8% of total match play [5].

When comparing past studies overall speed and duration, variation in percentages makes it difficult to pinpoint the exact amount of time spent during a certain activity. Furthermore, no study found in this research indicates the speed and duration for players' specific positions even though it seems logical, and Di Salvo et al. agreed that, "...training prescriptions in soccer should also be based on the specific requirements of the playing position thereby ensuring players are better able to fulfill their tactical

responsibilities during the game" [9]. Therefore, when creating a training program, one should be cautious as to the information used as generalized standards for individual players and their playing positions. program, one should be cautious as to the information used as generalized standards for individual players and their playing positions.

TESTING METHODS

Being able to calculate physical performance, specifically total distance covered and amount of high-intensity running, is not always an option if one does not have the time and equipment available to analyze such information. Fortunately, past research has studied the relationship between match play and testing methods that might predict match activity. These tests include the 12 minute run, Yo-Yo intermittent test, VO2max, treadmill, running at 2mM lactate, and sprinting tests. The goal of the 12 minute run test is to run the greatest distance within 12 minutes. Krustup and Bangsbo, ". . . found significant inter-individual relationships between the total distance covered . . . and the 12 minute running test ($r = 0.48$, $P < 0.05$) [7]. Mallo et al. also reported a moderate relationship between the 12 minute test and high-intensity running ($r = 0.53$; $P = 0.068$), and reported no relationship to total distance covered ($r = 0.23$; $P > 0.05$) [11].

For the Yo-Yo intermittent test, subjects engaged in 2 x 20m runs increasing the speed every so often through means of audio bleeps. Subjects were allotted ten seconds of rest between bouts, and when subjects failed to complete the required distance twice, the completed distance was recorded and used as the test result. The entire test lasted approximately eight to twenty minutes. A strong inter-individual relationship was found between performance on the Yo-Yo intermittent recovery test and the total distance covered during high-intensity running ($r = 0.75$, $P < 0.05$) [7]. Data from Krustup et al. and Krustup and Bangsbo suggest a significant relationship between the Yo-Yo test and player physical capacity ($r = 0.83$; $P < 0.001$ and $r = 0.75$, $P < 0.05$) in terms of the amount of high-intensity running completed during a game [5, 7]. Krustup and Bangsbo explain that:

Yo-Yo intermittent recovery test is a more sensitive measure. The logical explanation of this observation is that the continuous running performed in the 12 minute test does not accurately reflect the movement patterns in matches, in which a referee experiences 1,200-1,300 changes in exercise intensity during a game [7].

Although there is not a large number of research papers that study the relationship between the Yo-Yo intermittent test and physical capacity, Krustup and Bangsbo, along with others [4, 5], agree that the relationship is strong enough to evaluate the physical performance capacity of athletes [7].

Studies testing the correlation of VO2max, treadmill, running at 2mM lactate, and the Yo-Yo test found no correlation between the VO2max and treadmill test ($r = 0.559$; $P < 0.05$), weak correlation between the running at 2mM lactate test and the Yo-Yo test ($r = 0.195$; $P < 0.05$) in terms of the amount of low-intensity running and total distance covered, and a significant correlation between these tests ($r = 0.809$; $P < 0.05$, $r = 0.818$; $P < 0.05$, $r = 0.834$; $P < 0.05$, and $r = 0.762$; $P < 0.05$) and high-intensity running [5]. Lastly, the different sprint tests (time to complete 50m and 200m sprints) were not correlated with total distance covered or amount of high-intensity running proving to be poor indicators of physical performance during matches [11]. The tests discussed give a better understanding of which methods might assist in forming a knowledgeable base before creating an exercise program.

SUMMARY

Compiled research from this study suggests information about heart rate, distance traveled, speed and duration of locomotor activity, and testing methods used to determine activity profile. Information about heart rate suggests that it is not the most accurate determiner of high-intensity activity during soccer games [5, 6, 7, 10]. Studies show that total distance covered during a soccer match is a poor indicator of physical stress due to the fact that low-intensity activities such as standing, walking, and jogging account for more than 75% of soccer activity [7]. Information regarding speed and duration of locomotor activity gave a general understanding of the amount of time spent performing specific actions. This information could be used when creating a training program. Test procedures used to estimate the physical capacity of an athlete during a game revealed the Yo-Yo intermittent exercise test best correlated with the amount of high-intensity running performed during a match [4, 5, 7]. In conclusion, information in this study will help in understanding proper methods of application when attempting to create training programs for soccer athletes.

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CHARACTERISTICS OF YOUTHS WITH SCHOOL REFUSAL BEHAVIOR

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ABSTRACT

School refusal behavior refers to any refusal to attend school or difficulty attending classes for an entire day by a child (Kearney & Silverman, 1990). By defining and identifying the characteristics of adolescents who refuse to go to school, professionals can assess and treat this behavior more quickly and effectively. By addressing this problem, the short-term and long-term consequences of school refusal behavior will decrease. The purpose of this study is to define the characteristics of youths with school refusal behavior.

This study is most directly based on the study of identifying the function of school refusal behavior by Dr. Christopher Kearney, a professor of Psychology and Director of the UNLV Child School Refusal and Anxiety Disorders Clinic. In his study, a revision of the School Refusal Assessment Scale (SRAS-R) was examined. This measure is to help clinicians identify the primary function of a child's school refusal behavior (Kearney, 2002). Youth generally refuse school for one or more of four reasons. The four reasons that youth primarily refuse school is to avoid school-related stimuli that provoke a sense of general negative affectivity, to escape from aversive social and/or evaluative situations at school, to pursue attention from significant others, and to pursue tangible reinforcement outside of school (Kearney, 2002).

In a different article written by Kearney, he identifies the characteristics of youths with school refusal behavior. Youths with school refusal behavior show a wide range of internalizing and externalizing behavior problems. These behavior problems include depression, general and social anxiety, fear, fatigue, somatic complaints, noncompliance, aggression, clinging, temper tantrums, and refusal to move, as well as running away from school or home (Kearney, 2001). Along with these characteristics of school refusal behavior, assessment and treatment are also identified in the study.

INTRODUCTION

The importance of this research is to help school-based social workers, educators, and psychologists who do not have proper sources available to them. This study provides suggestions to modify the assessments and treatment procedures. This study is important to mental health professionals. These mental health professionals will gain an understanding of the reasons that motivate school refusal behavior which will lead to more effective treatment. The considered research participation represents a fraction of the time given toward a more broad study.

UNLV Child School Behavior Lab is a continuation of a study that has been going on before the considered research started the lab. The objective of this lab is to identify the characteristics of youth with school refusal behavior and the characteristics of families of youth with school refusal behavior. What this study offers to the field of psychology is the influence of family factors and parenting style in children and adolescents.

LITERATURE REVIEW

In 1993, a study by Kearney and Silverman is the first to examine an empirically assessment devise based on a functional classification system of school refusal behavior. The School Refusal Assessment Scale (SRAS) attempts to classify school refusal behavior so that it may serve to assign individualized, prescriptive treatment on the basis of whether such behavior is negatively and/or positively reinforced (Kearney & Silverman, 1993). The SRAS is viewed as a valuable clinical tool for identifying general variables that maintain school refusal behavior. SRAS items were grouped along three factors. These three factors include those representing negatively reinforced school refusal behavior, attention-getting behavior, and positively reinforced school refusal behavior (Kearney & Silverman, 1993).

School phobia was viewed as a syndrome before it was a symptom of general school refusal behavior. In this study, school phobia is viewed as a subset of school refusal behavior (Kearney, Eisen, & Silverman, 1995). According to most articles reviewed, about 5 percent of the school-age population affected refuses to attend school. To determine if school phobia is actual phobia, children and adolescents completed the Fear Survey Schedule for Children-Revised (FSSC-R).

The FSSC-R is a valid and reliable 80-item measure of general fearfulness of areas such as failure and criticism, the unknown, injury and small animals, danger and death, and medical procedures. Findings concluded that youngsters with school refusal behavior reported significantly more fear when "having to go to school" compared to those with or without anxiety disorders and without school refusal behavior (Kearney, Eisen, & Silverman, 1995).

A formal assessment is given when school refusal behavior is the primary difficulty. The School Refusal Assessment Scale (SRAS) is a reliable and valid measure of the strength of these hypothesized reasons for school refusal behavior (Kearney & Silverman,

1993). In addition to the first two steps, the third step for clinicians is to pay special attention to certain measures. In order, the measures include various diagnostic sections from a semi-structured interview, self-report questionnaires, parent and teacher ratings, and behavioral observations (Kearney, Eisen, & Silverman, 1995).

For those refusing school to avoid stimuli provoking negative affectivity, systematic desensitization and immediate or gradual exposure to the school setting are suggested. For those refusing school to escape aversive social/evaluative settings, modeling, role-play, and cognitive therapy are suggested. For those refusing school for verbal/physical attention, parent training and contingency management are suggested. For those refusing school for positive tangible reinforcement, family therapy and contingency contracting are suggested. A combination of procedures may be used in cases where multiple functional conditions influence school refusal behavior (Kearney, Eisen, & Silverman, 1995).

Evidence is given that several familial subtypes are characteristic of this population, children and adolescents refusing school. The familial subtypes include enmeshed, conflictive, detached, isolated, and healthy parent-child dyads, as well as mixed familial profiles. The parent-child relationship has been the traditional focus of much of the literature. The influence of siblings and other family members needs to be evaluated to best describe youngsters with problematic school absenteeism (Kearney & Silverman, 1995).

In this study, parent-completed Family Environment Scale (FES) includes data on 64 total children and adolescents with general school refusal behavior. The enmeshed family focuses on over-involved parent-child relationships. Children at risk for school refusal behavior tend to overvalue themselves and cultivate an unrealistically high self-image (Kearney & Silverman, 1995). The conflictive family is focused on hostility and conflict (verbal or physical fighting) as key characteristics of many families with youngsters of school refusal behavior. Characteristics of conflict such as antagonism and discord seem to be integral characteristics of this population. A detached family is one whose members of the family are not well involved with one another's activities or attentive to one another's thoughts and needs. An isolated family is characterized by little extra familial contact on the part of its members. Isolated or insular families have been related to problematic mother-child

interactions and child abuse, especially when limited social contacts are aversive in nature (Kearney & Silverman, Family environment of youngsters with school refusal behavior: A synopsis with implications for assessment and treatment, 1995). Many families do not display the enmeshed, conflictive, detached, or isolated characteristics when dealing with a child or adolescent who expresses school refusal behavior (Kearney & Silverman, 1995).

In addition to the primary characteristics of enmeshment, detachment, conflict, isolation, and healthiness of families with children with school refusal behavior, it appears that a considerable amount of overlap exists among these characteristics. This is known as "mixed familial profiles." In fact, many families of children with school refusal behavior display two or more of the interaction patterns (Kearney & Silverman, 1995).

Kearney, Albano and Silverman have designed a functional classification, assessment, and treatment model for youth with school refusal behavior. Kearney and Silverman devised the School Refusal Assessment Scale to measure the relative strength of these functional conditions for a particular case of school refusal behavior (Kearney, 2002).

There are three commonly used techniques to treat youths with school refusal behavior. Child-focused treatment involves psycho education, cognitive restructuring, somatic control exercises, such as relaxation and rebreathing training, and exposure-based procedures, such as imaginal. Parent-focused treatment involves contingency management, establishing morning, daily, and evening routines, limiting excessive reassurance-seeking behavior, and forced school attendance under certain circumstances. Family-focused treatment involves supportive psychology, contingency contracting, escorting youth to school and classes, communication skills training, and peer refusal skills training (Kearney, 2003). Generally, children tended to be younger if they refused school for attention. Children tended to be older if they refused school to escape aversive social and/or evaluative situations or to pursue tangible reinforcement outside of school (Kearney & Albano, Diagnostic aspects, 2004).

The School Refusal Assessment Scale designed by Kearney and Silverman was developed to identify the primary reason a particular child was refusing to attend to school. The SRAS has been translated into

several different languages since the initial publication. Measures taken in child behavior therapy are a diagnostic interview, child-completed measures, parent- and teacher-completed measures, SRAS, and SCRAS-R (Kearney, 2002).

Gender, race, and income are not a factor in youths who refuse school. School refusal behavior tends to be more common among young adolescents and among students entering a new school building for the first time. Various stressors trigger school refusal behavior. These stressors include problematic family dynamics, parents' marital discord, impeding school-based changes, family-based transitions, illness, and traumatic experiences (Kearney & Bates, 2005). There are different assessments to choose from and these assessment methods include structure diagnostic interviews, questionnaires, behavioral observations, review of school-based data, and daily ratings to name a few.

The term "school refuser" is brought up in an article. This term is used to categorize children or adolescents who appear to dislike and fear school and persistently refuse to attend or attend very unwillingly (Stroobant & Jones, 2006). According to Stroobant & Jones, school refusal is usually characterized by high levels of anxiety. In an attempt to capture the dynamic and diverse nature of school refusal, clinicians and researchers have devoted much time and energy to carefully defining and distinguishing different types of school refusal (2006).

School refusal is a collection of problem behaviours that are symptomatic of a heterogeneous range of disorders including, separation anxiety disorder, social phobia, and simple phobia rather than a unitary syndrome with a single underlying cause. School refusal children are generally constituted as unhappy individuals who are "missing out" and in need of adult help and understanding (Stroobant & Jones, 2006).

"School refusal behavior" replaces terms such as "school phobia" and "truancy," because these labels do not adequately or accurately represent all youths who have difficulty attending school (2008). A different study indicates that there are varying degrees of school refusal behavior. Initial school refusal behavior for a brief period may resolve without intervention. Substantial school refusal behavior occurs for a minimum of two weeks. Acute school refusal behavior involves cases lasting two weeks to one year, being consistently problematic throughout that time

period. Chronic school refusal behavior interferes with two or more academic years as this refers to cases lasting more than one calendar year. School refusal behavior occurs for one or more of the following reasons, to avoid school-related objects or situations that cause general distress such as anxiety, depression or physiological symptoms. The next reason is to escape uncomfortable peer interactions and/or academic performance situations such as test-taking or oral presentations. The third reason is to receive attention from significant others from outside of school. Another reason is to pursue tangible reinforcement outside of school. The last reason is for identification and treatment (2008).

Most of the school refusal behavior research takes place here in the U. S. One study was taken place in New Zealand. School refusal behavior is present in about 5% -28% of school-aged children. It is seen equally in boys and girls and is prevalent in many types of families of different incomes (Kearney, 2001). Serious short-term and long-term problems can develop as a result of extended school refusal behavior including distress, family conflict, social alienation, academic problems, delinquency, and school dropout, among others (Kearney, 2002). Common internalizing patterns include anxiety, depression, somatic complaints, fear fatigue, and withdrawal. Common externalizing behavior problems include incompletion, verbal and physical aggression, clinging, refusal to move, tantrums, and running away from home and school (Kearney, 2002).

A cross-sectional research design is used as well as a cross-sequential research design in this study. A number of different-age individuals with the same trait or characteristic of interest are studied at a single time. When participants fill out behavioral questionnaires and daily ratings at the Family Court for Truancy Court that is the only time the participant completes them. Individuals in a cross-sectional sample are tested more than once over a specified time period. When participants fill out behavioral questionnaires and daily ratings, they are asked to fill out the same questionnaires and daily ratings again at the end of the Truancy Diversion Program. This study is not complete and data has been collected over the past two years from various students who express school refusal behavior.

In researching this study and actively participating in it, research staff wants to know why a particular child is refusing school and in knowing this crucial infor-

mation in order to take proper assessment actions will advance treatment of the case immeasurably. The objective of this lab is to identify the characteristics of youth with school refusal behavior and the characteristics of families of youth with school refusal behavior. Youth are hypothesized to refuse school for one or more of the following reasons, to avoid stimuli that provoke a sense of general negative affectivity such as distress, anxiety and depression, to escape aversive social and/or evaluative situations like taking a test, to obtain attention from significant others like parents, and/or to pursue tangible reinforcement outside of school like sleeping and playing with friends.

School refusal behavior refers to a child-motivated refusal to attend school or difficulty remaining in classes for an entire day (Kearney, 2002). The term school refusal became synonymous and preferred over the term psychoneurotic truancy. Child and parent-based measures were taken. There was a separate child School Refusal Assessment Sheet from the parents. Parents completed a Family Environment Scale. These instruments were chosen to assess externalizing problems as well as family dynamics that are commonly linked to specific functions of school refusal behavior. The SRAS measures the relative strength of four functional conditions for school refusal behavior which are avoidance of school-related stimuli that provoke negative affectivity, escape from school-related aversive social and/or evaluative situations, attention from significant others and/or tangible reinforcement outside of school.

A limitation to the generalizability of these findings is that the classification and assessment of this population have been a difficult task. There are different labels for different behaviors to be consistent with all the research. This type of study is over looked. Not enough people are researching school refusal behavior.

Participants are given more than one questionnaire and daily rating to complete. The researchers' collect the data when they have completed the questions. The Research Assistant's code these measures, they are then entered in the computer and then checked to see if the measures are consistently being scored and entered correctly. The Research Assistants are given instructions for scoring school refusal measures. RA's score and code the Conner's Parenting Rating Scale-Revised (L). The Family Environment Scale is the scored and coded. All data is transferred

into a computer. Revised Child Anxiety and Depression Scale (RCADS) is scored on the computer as well.

FUTURE RESEARCH

Results of this study are unavailable due to ongoing research. Not all data has been entered into SPSS on the computer. Like previous studies no average age, race or parental status increase school refusal behavior. Consistent with previous studies, internalizing disorders tended to be associated more with negatively reinforced school refusal behavior.

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DEVELOPMENT AND MAIN FEATURES OF THE FOUR RELIGIONS OF INDIA: HINDUISM, BUDDHISM, JAINISM, AND SIKHISM

BY PILAR PALOS



ABSTRACT

This research set out to find whether or not Hinduism gave way to the emergence of Jainism, Buddhism and Sikhism. In addition the four religions were reviewed and analyzed to determine their development and main features. This paper will provide a comprehensive introduction to the four religions as well as an introduction to the history of the country. The development and main features of the four religions stated in this paper will enable the next researcher to explore further on this or other topics.

INTRODUCTION

INDIA

India is a complex and ancient country with a very diverse culture and history that began with the Indus Valley Civilization (3000-2000 B.C.). The two major cities of this civilization that exhibited early signs of what later systematized as Hinduism were Mohenjo-Daro and Harappa. These two cities are great examples of what the Indus Valley Civilization was like at its height (around 2500 B.C.). This civilization inhabited the regions between the Punjab and Haryana, now Pakistan and India (Sharma 2004, 256). Evidence of a religious system can be seen in clay seals and figurines that were believed to represent gods and goddesses worshipped at that time (Rinehart, 2004). Some of those gods and goddesses were even thought to be early representations of what later became Shiva and Shakti, both now worshipped

within Hinduism (Sharma, 2004). Around 2500 B.C., people speaking a branch of the Indo-European language group began to spread through Asia, one of those groups was known as the Aryans ("lords" or "nobles"). The Aryans invaded India through the northwest passes (Hutchison, 1981) and settled in the north part of India (Parrinder, 1971). Their society was organized according to *Varna* or "color": the *brahmins* (priests), *kshatriyas* (warrior or king), *vaishyas* (merchants), and *shudras* (serfs) (200). These classifications later became the prototypes of the caste system of India

Aryan religion was polytheistic (a characteristic seen in Hinduism today) and relied on Brahmins to lead in prayers, oversee sacrificial rites, and interpret Vedic hymns which outlined the requirements of the religion. The Vedas emphasized sacrifices (called *yajnas*) to the gods in order to appease the gods and live a comfortable, material-focused life in this world and the next (Sharma, 2004). Aryan culture dominated India's indigenous culture from the moment of the invasion which dated from around 2500 B.C. to 800 B.C. During that time, the indigenous beliefs and Aryan beliefs had begun to blend into what became Indian culture and ultimately Hinduism.

The Vedic hymns were the core of Aryan knowledge, philosophies, and practices and were divided into four parts: hymns, Brahmanas, Aranyakas, and

Upanishads. The hymns were mantras that were to be recited at yajnas, sacrifices, and other kinds of offerings. Brahmanas were the ritualistic precepts that guided sacrifices and meditation practices as a householder (or layperson). The Aranyakas were the same as the Brahmanas, except that these were intended for those who had reached the 'renunciation' state ("renounced" living as householder and took vows of a monk). Last, the Upanishads were meditations on philosophies and discussions on these same philosophies (Sharma 2004, 258). These Vedas dictated the course Hinduism took and also influenced the development and main features of Buddhism, Jainism, and Sikhism.

METHODOLOGY

The method of research used for this project consisted of making comparisons, fact finding and taking a historical approach. To begin with, primary and secondary sources were used to find the information concerning development and main features of each of the four religions. Interpreting this information in modern contexts was a problem, because most of the accounts of the religions were fairly old and were written within a different context that is not easily understood by a modern audience. Critical observation and critical analysis of the four religions were exercised in order to present a clear and concise description of each religion. After all the important information was gathered, it was compared and analyzed focusing on development and main features of the four religions.

LITERATURE REVIEW

There were two kinds of sources used for this research – articles and books. There were a total of three scholarly journals (articles) and thirteen books used for researching the development and main features of the four religions. The number of articles used was small, but the amount of information in them was particularly helpful for writing about the history of India, Hinduism's beginnings, and the teachings within Hinduism that were rejected by later religions (Buddhism, Jainism, and Sikhism). One particular article by Dr. Sharma, "Development of Indian Religious Tradition and Popular Culture," was helpful in discovering that Harappa and Mohenjo-Daro (Indus Valley Civilization cities) showed precursors to the gods and goddesses worshipped within Hinduism. This was very helpful in discussing Hinduism's development within the Indian history. Other important points found included the three paths to spiritual pursuit

and soul liberation: *jnana* (path of spiritual knowledge), *karma* (actions), and *bhakti* (devotion), the over-use of sacrifices, and the establishment of the caste system in Hinduism that led to the formation of Buddhism and Jainism. The Sufi (Muslim mystic teachings) tradition from Islam was also discovered to have influenced the teachings of Nanak (the founder of Sikhism) along with the *bhakti* tradition, ultimately creating what is now Sikhism.

The second group of sources was used to fill in any information that helped in the understanding of the religions; these books provided details that were not found in the articles. Those details included dates of birth (6th century B.C.) for Siddhartha Gautama (Buddha) and Nataputta Vardhamana (Mahavira), the founders of Buddhism and Jainism. The Upanishads, Vedas, and Adi Granth were found to be some of the main scriptures for three of the religions of India. Detailed biographies of the founders of Jainism, Buddhism, and Sikhism along with the circumstances in which they found their own path to soul liberation were helpful for writing about the beginnings of these religions. The information from the articles and books are discussed below as per the development and main features of the four indigenous religions of India.

THE FOUR RELIGIONS

Please refer to Appendix 1 for a table-representation of the main features and development of the religions discussed below.

HINDUISM

Development

Hinduism's beginnings dated to about 2500-2000 B.C., the same time as the Aryan nomads began to enter India. Early examples of a religion in the Indus Valley Civilization were found in the cities of Mohenjo-Daro and Harappa and included artifacts such as clay seals and figurines depicting prototypes of gods and goddesses that are now worshipped within Hinduism. Thus, Hinduism resulted from the mixture of Aryan religious beliefs with the indigenous beliefs in India. Hindu literature came from the Indo-European invaders, the Aryans, which included a collection of hymns (Vedas) and other scriptures (Brahmanas, Aranyakas, and Upanishads) that outlined how to practice their religion. The Vedas, Brahmanas, and Upanishads were adopted by Hinduism in general along with many of the beliefs and practices of Aryans (Hutchison 1981, 63). The Vedas were a compilation of hymns devoted

to chants, incantations, and spells for medicinal purposes, and sacrifices. There are several works within these: the *Rig Veda* (used for rituals), *Sama Veda* (instruction for rituals in verses), *Yajur Veda* (sacrificial steps to be chanted by priests), and *Atharva Veda* (magical spells for a variety of situations). The Brahmanas were rituals for carrying out sacrifices and the Upanishads were meditations and discussions on philosophy (Sharma 2004).

Along with the influence from Aryan literature, an early form of the caste system was also established by the Aryans and later incorporated into Indian society and Hinduism. This early caste system consisted of a division based on color (*varna*) and was divided into four categories: *brahmins* (priests), *kshatriyas* (warrior or king), *vaishyas* (merchants), and *shudras* (serfs) (Hutchison, 1981). Those basic four classifications later grew to include different types of merchants and the people from the lower levels of society and became an integral part of Hinduism. The Brahmins were in charge of interpreting the Vedic hymns, Upanishads, and Brahmanas and in carrying out the rituals and sacrifices in them. Even though the Brahmins led all in rituals, there was no single teacher or preacher within Hinduism, just like there was no single founder of Hinduism. Storytelling was the main technique by which Hindus taught themselves and others to worship gods and goddesses, read the literature, and express their devotion.

The main goal of a Hindu was to lead a comfortable and materialistic life and to go to heaven to enjoy the same comforts and pleasures that gods enjoy (Sharma, 2004). Hindus, early on, did not develop an ascetic way of life or the concept of renunciation which involved the renouncing of all material belongings, friends, and family in order to live a spiritual life. Even though asceticism and renunciation were not practiced, different paths of spiritual pursuits emerged. There were three paths that Hindus could take to achieve spiritual enlightenment and soul liberation: *jnana* (path of spiritual knowledge), *karma* (path of actions) and *bhakti* (path of devotion). Several of the practices within Hinduism, such as the overuse of sacrifices and the use of the caste system became less significant and points to rebel against for some groups (Jains and Buddhists in particular) (Sharma, 2004). Those groups created their own paths for spiritual enlightenment and soul liberation, rejected the concepts within Hinduism that were no

longer thought of as necessary, and kept others that still applied to their new spirituality. Even though those groups gained many followers and expanded outside of India, Hinduism did not shrink in popularity or changed its main teachings in order to conform to the new religions.

MAIN FEATURES

There are certain concepts that make Hinduism unique and yet similar to the other three indigenous religions. First, Hinduism is the oldest religion of the four indigenous religions of India. Second, Hindus believe in reincarnation (*samsara*-cycle of birth and death), *karma* (actions), *bhakti* (devotional adherence), *moksha* (escape from cycle of birth and death), and the *atman* (soul) (Hutchison, 1981). Those features can be found in the main scriptures (Vedas, Brahmanas, and Upanishads) and in their stories and epics. The epics were the main source for Hindu popular practices and ethics. One example of these epics is the *Bhagavad Gita*. It tells the story of the warrior Arjuna and his charioteer Krishna, the god Vishnu in disguise. Their conversation took place during a battle and consisted of the proper ways of showing *bhakti* (devotion) and the consequences of *karma* (actions). Other epics mention other deities and their relationship to humans. Polytheism is the norm within Hinduism, something that can be seen in the epics and stories. Thus, different villages, households, and individuals follow their desired gods or goddesses. This polytheism can also be traced to the invasion of Aryans and to the Indus Valley Civilization.

BUDDHISM

Development

Buddhism began as the rebellion against Brahman animal sacrifices and the use of the caste system within Hinduism in the 6th century B.C. It was founded by Siddhartha Gautama (560-480 B.C.), a contemporary of the founder of Jainism Mahavira (Hutchison, 1981). Siddhartha was a prince who one day (age 29), after seeing the four passing sights (an old man, a sick man, a dead man, and a monk), decided to leave his birthright to the kingdom, family, and riches in order to seek salvation. That act was called the great renunciation because Siddhartha adopted an ascetic lifestyle abandoning of all worldly things (102). From that point, Siddhartha traveled throughout India bald and in the clothes of a beggar, seeking the best way to find salvation. It is stated in Buddhist scriptures that Siddhartha (Buddha) tried several paths to salvation, but none was to his liking

(103). Siddhartha finally found his path at the age of 35 while sitting under a Bo ("wisdom") tree. While sitting there he went through the four stages of meditation: detaching from sense objects, moving from discursive to intuitive thinking, moved past vitality to blissful, peace and went beyond pleasure and pain to pure awareness. After moving through those meditations, Siddhartha made his way through the "6 super-knowledge" and "3 cognitions". His path through those led him to Four Noble Truths: the truth of suffering, the source of suffering, the end of suffering, and the Noble Eightfold Path. The Four Noble Truths and the Noble Eightfold Path were the defining concepts of Buddhism. Siddhartha's path through those concepts meant that he had finally found the path to salvation that he was looking for. Siddhartha became the "Buddha," he who is "enlightened one" or "awakened one".

Buddhism is not a sect of Hinduism because it did not reform or re-define Hindu concepts to create a better religion. Buddhism is a religion formed as a reaction to certain excesses within Hinduism that Siddhartha found to be unethical; animal sacrifices, the caste system within Hinduism, and the assumed divine power of gods and goddesses. Buddha set out to find a new and separate path from Hinduism to find salvation and many of the concepts that resemble those within Hinduism do so because of the permeation of those concepts throughout Indian culture and society. Elements such as karma and samsara were kept because they were not Hindu but Indian and were an integral part to Buddhist teachings of salvation.

MAIN FEATURES

Some key features unique to Buddhism are its creation by a lay person, the rejection of the caste system, and the teaching that anyone can reach nirvana (freedom from suffering) by following the Four Noble Truths and Noble Eightfold Path, to name a few. Buddhism is known and sometimes referred to as the path to enlightenment through the "middle path". This means that Buddhists neither put an emphasis on this world and its materials nor follow a strict ascetic life in order to achieve enlightenment. They follow a moderate lifestyle, abstaining from eating meat, certain food combinations, and behaviors. This is completely contrary to Jainism's "extreme" ascetic lifestyle. Along with living in the "middle path," Buddhists must exercise certain self-restraints (mind, actions, food, and sensual pleasures) in order to reach

nirvana or to be a proper Buddhist monk.

JAINISM

Development

Jain concepts appeared around the same time as Brahman teachings and can be traced back to pre-Aryan ideas of realism, dualism, and Shramanas (teachings set apart from Brahmanism) that teach salvation through atheism and asceticism. Formalized Jainism really began during a time in history called the Axis Age, a time in which new ideas and philosophies began to appear all over the world simultaneously (Parrinder, 1971).

Nataputta Vardhamana (540-468 B.C.) began Jainism in the same manner as Buddha started Buddhism. Nataputta was also against the Brahman practices of animal sacrifices in order to honor the gods and the use of the caste system to separate worshippers (Hutchison, 1981). His journey to find enlightenment resembled Buddha as well. He was born to a noble family in northeast India and was raised in comfort and luxury according to his status. Mahavira married and had children, but when his parents died he decided to join an order of monks that practiced asceticism to achieve soul liberation. The abandonment of all of his possessions, riches, clothes, and shaving of all his hair (like Buddha) came to be known as the renunciation. It was called this because he renounced all his attachments to the material world in order to pursue a life of complete detachment from it (Hutchison, 1981). Nataputta traveled India naked for 12 years in silence and meditation and on the 13th year of wandering he achieved kevalya or best knowledge and intuition and became known as Mahavira (Parrinder, 1981).

MAIN FEATURES

Mahavira was the last of the 24 pathfinders or Tirthankaras in the Jain tradition. Being a pathfinder meant that he had found the way to liberation alone and had preached it to his followers (Hutchison, 1981). His way of life inspired many others to follow in his footsteps treading the path of asceticism, self-restraint, avoidance of karma (actions), following ahimsa (non-violence), and moksha (liberation from birth and death). Within this path, a person can choose to live the life of a lay devotee or an ascetic. Lay devotees have to live a life in moderation while the ascetic practiced the great vows and lived a life focused on self-control (Tobias, 2000). The main goal in Jainism is to end the cycle of birth and death (moksha/kevalya) and avoid the accumulation of karma in the soul;

when karma is stopped, the soul is then able to go back to its pure form and is finally isolated from the misery and wretchedness of this world (Hutchison, 1981; Sharma 2005).

SIKHISM

Development

The last of the four indigenous religions of India is also the youngest. It emerged in the 15th century A.D., a time in when there was a lot of political turmoil throughout India (Banerjee, 1971). Around 700 A.D., Muslim invaders began entering India from the northwest and later they established a Muslim rule that lasted several centuries (Sharma, 2004). Under Muslim rule, Hindus were greatly affected because of the unjust laws towards them, such as the decree of Zimmis, which meant that Hindus were a tolerated people but they were not considered full citizens (Banerjee, 1971). During this time, only Muslims were full citizens of India, Christians and Jews were somewhat recognized because they were the "People of the Book" (religion descended from Abraham like Islam), and Hindus and Zoroastrians were subjugated (Banerjee, 1971) (23). Although the Muslims fought hard to convert and subjugate Hindus and Zoroastrians all over India it was harder than in other countries (Persia had been completely converted to Islam by the time they invaded India), because of the size of the country, population, and their attachment to the indigenous faiths (Banerjee, 1971) (23). The founder of this religion, Nanak (1469-1539 A.D.) born from Hindu parents but educated by a Muslim teacher, grew up during this tumultuous attempt at conversion and the religion he founded was a direct response to the injustices he saw (Hutchison, 1981).

Nanak lived a life similar to Buddha's and Mahavira's: he married at age 12 and later had two sons, then left his wife and children to organize a group of religious followers preaching the worship of one supreme, formless, and eternal lord (Singh, 2003). He renounced the caste system that was part of Indian society and culture and dedicated himself to the service of everyone. Sikhism arose as a way to pray for the good of all and to one God. There are 5 Banis (prayers) that are recited daily: Japu, Japp, and Swaryass (morning prayers), Sadar Rehras (sunset prayers), and Sohila (bedtime prayers). Sikhs had teachers (gurus) that taught the Panth (Sikh religious community) and others about the One and Omnipotent God. The main scripture, Guru Granth Sahib, was created before the death of the last guru, Guru Gobind Singh. Guru

Gobind Singh gathered his closest followers and declared the line of personal gurus was to end with him. He transferred the roles of a guru on the Granth so that a Guru would be always present and available to all Sikhs (Singh, 2003). Sikhs have faith in the teachings of the 10 gurus (teachers that arose after Guru Nanak died) which are embodied in the main Sikh scripture, the Guru Granth Sahib; they do not believe in or practice idolatry, caste divisions, or superstitions of any type (Singh, 2003).

MAIN FEATURES

Sikhism differs from the other three religions because it is a blending of the Bhakti tradition (Hindu practice of devotion) and Sufi tradition (mysticism within Islam). The other three indigenous religions arose from teachings and beliefs that were all part of Hinduism and Indian culture. Sikhism is also unique because of the Sikhs' reverence toward the ten Gurus (a line of gurus beginning with Nanak and ending with Gobind Singh), the belief in soul liberation through the remembering of the Divine Name and because it was founded by person seeking to settle a conflict between two different religions. The goal of a Sikh was to be united with God through Guru Nanak, to be free of the cycle of birth and death, and the end of the journey of the atma (soul). This could be achieved by following the five stages of spiritual development (khand): performance of duty (Dharma khand), realm of knowledge (Gian khand), surrender (Saram khand), the realm of truth (Sach khand), and realm of action (Karam khand). When all those are completed, one is united with God. In order for a Sikh to join God, they had to do good deeds that cancel karmic "baggage" and allowed them to achieve liberation. Guru was the all-important guide in liberation and is manifested in the Adi-Granth. Of the four indigenous religions of India, Sikhism is the only one to believe in one supreme deity as creator and thus subject to great devotion by the Panth (religious community).

CONCLUSION

The original research question was to find out whether or not Jainism, Buddhism, and Sikhism were sects of Hinduism and to explore the development and main features of those four religions. In my research I did not find any facts or evidence that concretely showed that Jainism, Buddhism, and Sikhism were sects of Hinduism. Those religions were all linked by certain Hindu teachings and some have even retained elements of Hinduism (the belief in reincarnation,

karma, and the end of the cycle of birth and death) and still they are unique and have own main features. All four religions had a common past and yet their teachings and practices are different in order to guide people in their daily lives and show them

the path of soul liberation.

This research was conducted within a short amount of time but with the purpose to bring a clear and comprehensive picture of the

APPENDIX 1

Development and Main Features of the Four Indigenous Religions of India

Hinduism	Buddhism	Jainism	Sikhism
<ul style="list-style-type: none"> ▪ Earliest date of emergence ~3000-2000 B.C. ▪ Originated in Mohenjo-Daro and Harappa (Indus Valley Civilization) ▪ Influenced by invading Aryan nations ~2500 B.C. ▪ Not founded by single person ▪ Caste system integrated into religion and practices 	<ul style="list-style-type: none"> ▪ Emerged in 6th century B.C. ▪ Founder, Siddhartha Gautama (Buddha), 560-480 B.C., (contemporary of Mahavira) ▪ Originated in northeast India ▪ Arose as rebellion against Brahman rituals and ceremonies involving sacrifices, and the divine power of gods/goddesses ▪ Maintained some teachings of Hinduism 	<ul style="list-style-type: none"> ▪ Emerged in 6th century B.C. ▪ Founder, Nataputta Vardhamana (Mahavira), 540-468 B.C., (contemporary of Buddha) ▪ Originated in northeast India ▪ Arose as rebellion against caste system and Brahman teachings of sacrifice ▪ Maintained some teachings of Hinduism 	<ul style="list-style-type: none"> ▪ Emerged in 15th century A.D. ▪ Founder, Nanak (Guru), 1469-1539 ▪ Arose as rebellion against caste system and blind faith ▪ Blending of Sufi tradition in Islam and Bhakti tradition in Hinduism ▪ Contains Muslim Sufi and Hindu teachings
Main Features <ul style="list-style-type: none"> ▪ Reincarnation (samsara-cycle of birth and death) ▪ Karma (actions) ▪ Bhakti (devotional adherence) ▪ Moksha (escape from cycle of birth and death) ▪ Atman (soul) ▪ Main scriptures include Vedas, Brahmanas, and Upanishads 	Main Features <ul style="list-style-type: none"> ▪ Lay person seeking own way to salvation ▪ Rejection of caste system ▪ Anyone can reach nirvana (enlightenment, freedom from suffering) by following Four Noble Truths and Noble Eightfold Path ▪ Four Noble Truths :truth of suffering, 	Main Features <ul style="list-style-type: none"> ▪ Person seeking own way to salvation ▪ Rejection of caste system ▪ Karma (actions and effects) ▪ Moksha/Kevalya (liberation of the soul from worldly attachments) ▪ Ahimsa (non-violence) 	Main Features <ul style="list-style-type: none"> ▪ Guru all-important for guidance and liberation ▪ Main script is Adi Granth- seen as manifested body of Guru ▪ Rejection of Caste system ▪ Founded by person seeking to settle conflict between Hindus and Muslims in India ▪ Only religion of the four to believe in one supreme deity as creator and subject

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|--|---|--|---|
| <ul style="list-style-type: none"> ▪ No single leader to lead devout in spiritual pursuits ▪ Polytheistic with different villages, households, and individuals following their desired god or goddess ▪ Oldest religion of the four indigenous religions of India | <p>source of suffering, end of suffering, the Noble Eightfold Path led to enlightenment</p> <ul style="list-style-type: none"> ▪ Noble Eightfold Path: right understanding, mindedness, speech, action, life, effort, meditation, and emancipation ▪ “middle path” to enlightenment (contrary to Jain path of extremes) | <ul style="list-style-type: none"> ▪ Strict asceticism (some monks go about naked while others adopt a white robe) ▪ Achieve moksha by detaching oneself from the world, avoiding karmic accumulation, following ascetic living, and following strict ahimsa ▪ avoiding suffering and death of any and all living creatures | <p>to great devotion</p> <ul style="list-style-type: none"> ▪ Panth (community)-religious community is basis of religion and worship ▪ Liberation of soul from cycle of birth and death ▪ Ultimate goal is to join God ▪ Good deeds in order to cancel karmic “baggage” and achieve liberation ▪ Youngest religion of the four |
|--|---|--|---|

development and main features of the four indigenous religions of India. There are many questions that this research was not able to explore because of the amount of time given but that other interested researchers can explore themselves. This paper will make future research about Hinduism, Buddhism, Jainism, and Sikhism easier because the development, main features, and comparisons are all found in this paper.

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SORORITY GIRLS: PERCEPTION VS. REALITY

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ABSTRACT

This research deals with women involved in Greek life and the stereotypes that are associated with being a sorority girl. It is an evaluation of previous studies that have been based on people involved in the Greek community. The purpose of this research is to examine the perception of sororities and bring to light the reality. This research is intended to address certain issues associated with females in the Greek community such as disordered eating, academic misconduct, sexual activity, alcohol consumption, and personality development. This research also highlights the similarities and differences associated with each council on UNLV's campus, including members of the National Panhellenic Council, the Multicultural Greek Council, and the Panhellenic Conference. Sororities cannot be fully examined without also mentioning fraternities and their contributions to Greek culture. Fraternities and sororities have often garnered attention for binge drinking, fostering gender inequality, and an overall bad name. The media perpetuates the idea of the wild and crazy sorority girls. This research is intended to reveal the truth about women involved in these Greek organizations and possibly disassociate the negative stigmas that are attached to sorority girls. This research will provide a better understanding of females involved in Greek life.

INTRODUCTION

There are twelve sororities on UNLV's campus each

with their own traditions, values, and reputations. These twelve sororities are made up of the National Pan-Hellenic Council (NPHC) the national council is made up of historically black sororities. The Multicultural Greek Council (MGC), which consists of two Latina sororities, one Asian American sorority, and one multicultural sorority. Lastly, there is the Panhellenic Conference (PHC). The National Pan-Hellenic Council was organized in 1930 at Howard University during a time when African-American students were deprived of the civil liberties other students were given. UNLV currently has three active NPHC sororities and one dormant sorority. These sororities include Alpha Kappa Alpha, Delta Sigma Theta, Sigma Gamma Rho, and Zeta Phi Beta, which is the only dormant sorority on UNLV's campus. A sorority will become dormant when there are no more active members to run the sorority on a campus or when a sorority has been put on probation. The Multicultural Greek Council was established in 2007. The current member organizations of MGC are Alpha Phi Gamma which is the newly introduced Asian American Sorority. Kappa Delta Chi and Lambda Theta Nu are both Latina sororities and were the first Latina sororities in the state of Nevada, and Sigma Theta Psi which is a multicultural sorority. The other five sororities that make up the Panhellenic Conference are Alpha Delta Pi, Alpha Gamma Delta, Alpha Xi Delta, Delta Zeta, and Sigma Kappa. All of these sororities emphasize academic success, community service,

and advancing leadership skills.

As incoming freshmen students may be overwhelmed by a large campus filled with new and different people, some may join social groups in order to find a place to belong. Some girls join sororities strictly to network. This networking can be based in the party circuit or follow a professional route. Some Greek members may be able to provide incoming girls with the opportunities they need to excel in the job market. Greek life is also known for the excessive party lifestyle. Many incoming college students may join just as an opportunity to have fun, when college is over they may leave the women that were supposed to be their lifelong friends behind. Some young women may be asked to join by their family members. Students who are part of a legacy, meaning that they have a relative who has pledged, may feel obligated to continue the family tradition. Although they have connections, this does not always work out for young women, especially those who are completely uninterested and only joining to please a parent.

Other young women may join in a search for self. In an article by Arthur, the idea of self-completion is described; it says that people who feel status anxiety may engage in self-symbolization, resulting in the adoption of symbols used to bolster identity. A major part of Greek life is being proud and displaying symbols. Almost all members of a Greek organization can be seen wearing their symbols in the form of jewelry, shirts, bags, hats, and other forms of apparel. Many people may feel the need to establish who they are based on what others think of them. The use of these props lets outsiders know which social group they belong to. When joining any group, girls must give up some of their individuality in order to maintain the group's image. Some people feel that college is a time for reinvention and joining a social group may help with the search for self. There are many issues that need to be addressed when it comes to females involved in Greek life. These women have received criticism not based on who they are as individuals but for the Greek affiliation and what that group represents as a whole. The following content will address the perceptions of sorority girls and reveal the truth. This will include their health issues, including disordered eating, alcohol consumption, and their sexual activities. It will also regard information regarding their academic careers and personality traits.

LITERATURE REVIEW

Most students who enter college are often thrown into a new world. College may be a complete departure from the life someone has been living for the past eighteen years. Incoming freshmen find themselves out of their comfort zone and are forced to adjust to a new environment. Being thrust into this new life may raise the potential for a student to become involved in behavior that could put them at risk for emotional and physical stress; such as cigarette smoking, alcohol consumption, increased sexual partners, and sex while under the influence of drugs or alcohol. Affiliation with on-campus organizations such as fraternities or sororities may increase a student's risk given the rituals and socially endorsed behaviors associated with Greek organizations (Scott-Sheldon, 2008). One health concern that is often associated with sorority girls is the issue of disordered eating.

Most women have been pressured to conform into society's unrealistic concept of beauty. This involves the maintenance of an often unattainable body weight. This pressure is not only exerted by men and the media but also by female acquaintances. It has been estimated that at least 6 percent of all women have an eating disorder of some kind (Alexander, 1998). Eating disorders generally develop in adolescence and are seen more frequently in women from higher socioeconomic levels; because of their age and higher socio economic status, females involved in sororities are often at a higher risk for disordered eating habits. Sorority women make up a subgroup that has been anecdotally associated with a preoccupation with body image and appearance (Schulken, 2009). Conformity is often a staple of joining a group and it is no secret that people often change their attitudes and general behavior to fit the social norms of that group. Sorority girls may feel pressure to follow what they think a sorority girl should look like. Sorority women as a group develop feelings of self-worth through "maintenance of an external orientation" and are likely to be overly concerned with searching for approval from others (Alexander, 1998). Despite these facts, a study in the *College Student Journal* (2003) reported that sorority women did not report significantly more eating disorders or eating disordered behaviors. In fact the study showed that women who participate in athletic teams and dance troupes are likely to be more eating disordered than sorority women.

There has always been the assumption that men and women involved in Greek life are more likely to over indulge in alcohol consumption. According to an article titled "Risky drinking in college changes as fraternity/sorority affiliation changes: A person-environment perspective," drinking and alcohol consequences increase as individuals affiliate with Greek systems. These consequences include passing out, missing class, and losing friends. These are not the only consequences that heavy drinkers are exposed to. The excessive use of alcohol is a large public health concern. People younger and younger have begun to experience problems that are alcohol related. Those who overindulge may also be at risk for exacerbating preexisting mental health conditions such as depression, eating disorders, and anxiety disorders (Larimer, 2004). Many young people may be at risk for serious injuries or accidents due to their level of intoxication, which may not only harm themselves but also others. Young women are particularly at risk for unwanted sexual experiences. According to the Journal of Violence and Victims (2002) men perceive women who are drinking as more sexually receptive than those who are not. Women who drink are more likely to meet possible sexual predators in settings in which alcohol is consumed, such as fraternity parties.

Although Greek members may be at risk for unwanted sexual experiences when it comes to their normal sexual activity it was found that members and non-members did not differ. According to a 2008 article by Scott-Sheldon Greeks and non-Greeks did not differ in condom use or unprotected sex and the research did not find higher rates of reported STDs among Greek-affiliated students. When it comes to sexual practices the majority of college women are the same. Unfortunately the article revealed that overall the proportion of unprotected penetrative sex was high among both student sub-groups. The important task is to break down the stereotype of the oversexed sorority girl. These women are often perceived as being more open to sex and more easily attainable. Scott-Sheldon's study has shown that sorority girls are no more sexually irresponsible than any other girl on a college campus.

Another issue that needs to be addressed is the idea of academic dishonesty. For many women involved in co-curricular activities, academics can become a low priority. These activities can include sports, work, and/or social groups. When priorities and obligations are shifted around, homework is often the last thing on the to-do list. Greek organizations place great emphasis

on academic success. Women often receive pressure from their sorority sisters to perform well academically and to keep their chapter GPA at an acceptable average (Williams, 2007). Not only do people feel pressure from their organizations but also from family members and other outlets. Some students rely on their good grades to lower their car insurance payment; others depend on a high GPA to maintain their scholarships, and athletes are also required to maintain a certain grade point average. Those who are involved in extra activities are often stretched too thin and find that the only way to maintain their high scores is through cheating. Students in these organizations place an emphasis on academic achievement and honor but studies have shown these same students participate in academic dishonesty in large numbers (Williams, 2007). Through this study it was discovered that upper-class women in sororities engaged in academically dishonest behaviors at significantly higher rates than upper-class women with no sorority involvement. Perhaps if peer pressure was eliminated there would be a decrease in academic dishonesty.

One recurring theme is the fact that sorority girls often feel obligated or pressured to abandon some of their personality traits in order to feel accepted by the group. This can include changing their physical appearance or changing their values. With time, values within a single fraternity or sorority were more likely to become heterogeneous rather than homogeneous (Kalof, 1991). Although Greek members often get the misnomer for being extreme partiers the fact is members of Greek organizations report more traditional stereotypical views about men and women. What is unfortunate about this is that these women are being socialized into a world in which their roles may no longer exist. Of course there will always be male bread winners and housewives but a person often learns who they are and how they should behave based on contact with those around them and when they exit these groups they may decide that who they have been for the last four years is not really who they want to be. Despite this, an article by Stone revealed that sorority women are better adjusted to their home situation after college than non-members (Stone, 1951).

Although sororities promote the image of sisterhood and lifelong friendship they are often scrutinized as a whole for some organization's poor choices. DePauw University disaffiliated with national sorority Delta Zeta; a sorority that is present on 165 campuses in

the US. Delta Zeta evicted two-thirds of the university's chapter members in what the sorority called an effort to improve its image for recruitment, but which the evicted women described as a purge of the unattractive or the uncool (Dillon, 2007). Sororities expect their group members to accept and follow the guidelines and norms that are presented to them. Group members can punish serious deviation from their norms by withdrawing emotional support from the offender (Kalof, 1991). In an article titled "My Sorority Pledge? I Swore Off Sisterhood," the author describes an unpleasant incident in which she was date raped by a fraternity member; once the word got out her sorority sisters placed all blame on her. The author states, "I adhered to their customs and mores, relied on them for nurturing and intimacy, trusted them. And they not only failed to support me in crisis, they collectively kicked me as I lay in the gutter, judged me from under a veil of hypocrisy, then cast me out, leper-style" (Valen, 2007).

It is incidents like this that perpetuate the negative stereotypes associated with sororities. It is not only the behaviors of the sororities themselves that give them a bad name but it is also other's perceptions of these women and how they are consequently treated that contribute to the negative stigmas attached to these women. According to an article by Barbara J. Rismann (1982), girls are ranked initially by their sorority affiliation, meaning that these women's symbols and looks are taken into consideration before their actual personalities. If a sorority has a certain reputation, non-members may be apt to feed into these negative ideas by treating certain chapter members badly.

Men and women involved in Greek life often receive a bad name. The labels of "Frat Boy" and "Sorostitute" do not present members of Greek organizations in a positive light. There are many activities that fraternities and sororities are involved in that often go unnoticed. Sororities are often involved in charity work; the sororities here on UNLV's campus such as Alpha Phi Gamma, Delta Zeta, Sigma Theta Psi, and Alpha Delta contribute their time and money to programs that promote the welfare of others. Programs such as the Fight Against Violence Towards Women, Breast Cancer Awareness, the Ronald McDonald House, and The Painted Turtle Camp. Other sororities such as Delta Sigma Theta, Sigma Gamma Rho, and Lambda Theta Nu provide services and programs to the community, aimed to enhance their quality of life, and also provide scholarships to high school students).

Despite horror stories, Greek organizations do provide a support system for their members and often have the same life goals as non-members. There was an experiment titled "Life Goals Among Greek College Students" in which Greek students were asked to rank their life goals. Goals given highest priority by these Greek college students overall were being happy, being in love, having close friends, having a life partner/spouse, and have relatives. While many Greek members are blanketed as "Money hungry" or "Social climber," the experiment showed that their respondents ranked "a role in public life or politics" last among 19 life goals. This low ranking/value for public service is in contrast with the importance that national fraternities and sororities place on public service and political accomplishments among their members (Abowitz, 2003).

There are benefits to joining a sorority. Members of Greek organizations tend to feel that their groups are going to be extremely useful to them socially, morally, and financially in the years after college. Some of the chapters on UNLV's campus are associated with many notable sorority alumnae including Rosa Parks, WNBA player Wendy Palmer and a number of singers such as Minnie Riperton and Alicia Keys. These women are also present in television and film with actresses such as Michelle Pfeiffer and Kathy Bates. These women also make up a list of firsts including Margaret Chase Smith who was the first US woman senator and the first woman to sit in both houses of Congress. Violette Anderson, the first Woman of color to practice law before the US Supreme court; Shirley Chisholm, the first Black woman member of the U.S. Congress, Brigadier General Hazel Johnson Brown, Ph.D. was the first African American woman general in the United States Army, while First Lieutenant in the US Army Ashley Henderson Huff, the first known sorority casualty in the current war in Iraq. Lastly, Alexa Canady, M.D., was the first Black woman neurosurgeon in the United States. Regardless of the negative stigmas associated with sorority girls all of the previously mentioned women were at one point involved in a sorority and by no means project or perpetuate the negative stereotypes associated with them.

This research was an evaluation of similar studies and research that were all based on Greek members regarding their health, academics, personality, and ideas regarding them both positive and negative. The objective of this research was to address the media's depiction of sorority women and to gain a better

understanding of women involved in sororities and to also shed light on the possible misconceptions that are placed on members who are part of the Greek community. This research is not without its limitations, many articles failed to state whether or not the study was based on members of the MGC, NPHC, or PHC. This research was intended to explore the stereotypes and stigmas attached to sorority girls and bring to light the truth. The research acknowledges that women involved in Greek life often exhibit traits associated with disordered eating but data shows that they do not necessarily develop eating disorders; because so many different experiments came up with different results, no concrete conclusions can be made when it comes to sorority women and disordered eating. Research also showed that despite the negative stigmas associated with Greek life, many of its members often share the same goals and ideals of non-Greek members. This research also put to rest the idea that women involved in sororities are extra promiscuous; the results of that study were that most students had high levels of unprotected sex, regardless of group affiliation. The issue of academic dishonesty was mentioned, revealing that upper-class women in sororities engage in academic dishonesty much more than upper-class women with no sorority involvement.

CONCLUSION

Though the majority of college students partake in alcohol consumption, studies have shown that Greek members are more likely to be diagnosed with alcohol use disorders and to experience more alcohol-related consequences than nonmembers. It was also discovered that heavy drinking and alcohol consequences decrease as individuals disaffiliate from Greek systems. Despite the negative stigmas that are attached to Greek members the research shows that many men and women involved in Greek life are very conservative and often gladly step into standardized gender roles. It was discovered in an article that after college many sorority girls were better adjusted than non-sorority girls. Although some non-members think there is no benefit of Greek life, the reality is that Greek membership supplies students with leadership opportunities, a social unit, and post collegiate networks.

FUTURE RESEARCH

Future research should focus on organizations under the National Panhellenic Council and Multicultural Greek Council. The MGC is a relatively

new addition to the entire Greek organization, so there have not been many studies done on these chapters. College students are constantly being socialized by their family, peers, and the media; the behavior they exhibit is influenced by both observation and perception. People often misperceive the actual behavior of others and the purpose of this research was to correct and/or confirm those perceptions.

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ARE THERE BENEFITS FOR IMPLEMENTING SOCIAL NETWORKS IN THE WORKPLACE?

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ABSTRACT

The purpose of this study is to research and evaluate any benefits for implementing social networks in the workplace through already conducted research, analyzing companies that currently utilize social networks, and collecting data on those businesses. This information will contribute knowledge to my field of Management of Information Systems because it may find new ways to gather, organize, and distribute information amongst employees in the workplace, which could improve the relationships, collaboration, efficiency, and effectiveness of the business.

INTRODUCTION

Within the last several years, social networking has changed the way people use the World Wide Web. The internet is no longer simply a tool to find information; it is a way to connect any one person to the entire world within milliseconds [16]. "Web 1.0 is about connecting computers, while Web 2.0 is about connecting people" [11]. Humans are social creatures and social networks allow us to feed our natural compulsion to interact with others [12].

The number of people who use these networks is astonishing. According to popacular.com, a site that constantly updates the number of "tweets" Twitter has posted to its site, there were over 3.7 billion "tweets" as of September 1st, 2009 and the number continues to rise by the thousands every minute [22]. Facebook

reports over 250 million active users, 120 million of which check the site every day; combined, users around the world spend more than 5 billion minutes every day using Facebook [21].

The majority of users of such sites are young adults. These people will soon become the new workforce as baby boomers begin to retire [14] and these millennials, or Generation X, begin to enter the professional world. These will be our future leaders, CEOs, innovators, and their current trend for communicating to the world is through social networks [18] such as Facebook and Twitter. So how can social networking become useful in the business environment? Does it hold any beneficial qualities that would profit a company?

This paper will analyze several different perspectives considering if social networking can help employees and employers. It will focus on seven currently implemented social networks in large businesses and corporations and the benefits and disadvantages of using these sites. This research will also reflect on other noted studies and discuss their results, including whether these studies found benefits or detriments to utilizing social media. The outcome of this paper will determine whether or not it is useful to incorporate social networking into a business environment and what approach to take to continue and conduct my own research into this field.

LITERATURE REVIEW

There is an extensive collection of research on social networks and their impact on the workplace. Listed are several examples of networks that are currently implemented in large businesses, and the findings of each study on the effect of those programs.

Skeels and Grudin conducted a joint study primarily on Facebook and LinkedIn and the programs' involvement in Microsoft Corporation [1]. They described the benefits and problems the sites had with employees who used either site. The results were based on a survey of 430 random employees and a semi-structured interview of 30.

LINKEDIN [1]

LinkedIn allows users to create professional profiles in order to connect to others similar to themselves in the business world. Each profile acts as a summarized resume, displaying information such as work experience and education. However there are very little options to list personal interests; the site is strictly geared towards business networking.

The authors found that LinkedIn was most effective for young business people between the ages of 25 and 35 who wished to expand their professional networks. For older individuals with "well established careers" (98), the site was helpful for recruiting or for finding vendors or consultants.

LinkedIn will automatically update a contact's information when changes occur such as a new address or job; there's no need to update an address book because it does it for you. It also allows a person to keep in contact with someone they might not see often or have a strong relationship with by checking up on updates or messaging an occasional hello.

The downside to LinkedIn is that because it is for people who have at least established their professional background, younger people and undergraduates may not have had enough experience to utilize the site to their benefit, or may be disregarded because of that lack of experience when trying to network. This causes the site to lose a large population of potential users. There should instead be an option for those just entering the professional workforce to give them a way to form or expand contacts with job interests similar to their own.

FACEBOOK [1]

"Facebook describes itself as 'a social utility that connects people with friends and others who work, study and live around them' (99). Facebook was created in 2004 with the intention for use only by Harvard students but in recent years has become available to all college and high school students, and now anyone over the age of 13 [12]. The site is also useful for application developers who are able to run their applications through Facebook and spread usage to a wide population.

The greatest advantage found using Facebook in the workplace is keeping connections to colleagues, former classmates and other business related associates. It is a great way to build relationships with people one may not interact with regularly through updates and even similar interests as listed on one's profile. "Without communicating directly, people can remain aware of each other and rekindle direct communication without needing to catch up on all that transpired since they last met" (99).

Skeels and Grundin found that Facebook primarily allows a user to reconnect to prior contacts, maintain awareness and keep in touch with those associates, and build social capital by communicating and relating to one another through the site.

The biggest concern with Facebook, however, is giving out too much personal information to people one may not want to know. There needs to be a line between personal "friends" who happen to be colleagues as well as other professional contacts whom the user may have a relationship but is not necessarily "friends" with. The easiest solution to this is creating groups of contacts of whom a user can limit what information and updates may be seen by each group. The downside, however is that this is time consuming and it may be easy to forget exactly which associates are in which group.

BEEHIVE [2]

Beehive is a social network, studied by DiMicco et al, that was established for use by the employees of IBM Corp. in May of 2007. One year later, the authors collected data on the 30,000+ users on the site and based on the information, conducted a qualitative interview of 17 users based on their high level of activity on the site. To get a variety of interviewees, the group chose people with different job functions and different locations around the United States and other countries to have a mix of employees.

Employees's profile displays their contact information and job function in the business, which is compiled from IBM's corporate directory. The user may then create their "About Me" section, which includes information such as current and recent projects, cities they have lived in, what sort of experience and specializations they have, their interests and hobbies, people they have recently met, etc. They may also upload photos and list connections they have with other employees within the company. Beehive will keep an updated section of "The Buzz" on what that specific user has recently used the site for, similar to Facebook's "News Feed." A user can also control what others can see and access on their site to maintain privacy.

The authors found that users connected more with people they were not that familiar with instead of colleagues they interacted with regularly. Users also made new contacts with other employees to form personal and professional relationships. Reasons for not using Beehive to keep up with coworkers they were already close with were that they wanted to meet new people and that they already contacted each other on a regular basis.

DiMicco et al discovered three main reasons users share on the site: caring, climbing, and campaigning. Caring implied that users could relate to one another through similar interests and could connect on a personal level. Climbing meant that users could network to build professional contacts that could help them advance their careers within the company. Users could also campaign current and previous projects or projects that they would like to work on in the future to contacts that could help them with their goals.

Through these interviews, the authors learned that privacy was not a main concern amongst users. Less than 10% of employees restricted access to their profile amongst the tens of thousands of people who used the site. "This willingness to have other employees hear your honest opinions and know personally identifying information may indicate a high level of trust of other employees," (718).

The main implication for Beehive is that users were not using the site to keep up with people with whom they already had a strong relationship. Though this is not a large concern, the authors suggested catering the website to primarily making new

contacts and strengthening weak ties instead. Another concern is the motivation that fuels user interaction. Though this includes connecting to others, it seems that one of the other main reasons was to personally advance within the business. DiMicco et al suggests that there be many functions and means within Beehive for users to "express themselves and their career goals" (719).

SMALLBLUE [3]

Lin et al. analyzed how SmallBlue affected employees within the IBM Corporation. Those who agreed to use the product installed the application on their personal computers. This social network explored the user's outgoing emails within the company and any IM chats with other staff. "Content [was] stripped of quoted response and then reduced to stemmed term vectors, before being sent to the central repository for analysis," (1483). The purpose was to figure out 'who knows what?' and 'who knows whom?' based on conversations held between users. At the time of the author's research, there were about 5,000 current users.

The authors had to keep high standards of privacy while conducting their research because people would be dissuaded from participating otherwise. They only used "aggregated and inferred information" (1484) and "never kept or displayed any information about who communicated with whom about what" (1484).

The goal of SmallBlue was for users to be able to search through the site to find employees who were experts on any given subject and finding their contact information. A user could also find others indirectly related to that subject who may be able to help as well. Depending on the keywords used to search for a person, the site would compile a list of the top 1000 people that matched or related to the search. The site also creates a pathway of six degrees of separation; in other words, contacts you may already know who may know someone who may know someone, etc. who can reach the person you actually want to contact. This way a user does not have to contact their intended target directly and may increase the chances of getting a response from that person.

The considered paper is only a summary of SmallBlue's functions but is an analysis of a tool that if fully implemented, could help thousands of

employees find experts on specific subjects and how to contact them to solve their needs.

OVERSTOCK AUCTIONS [4]

Overstock Auctions is a site similar to other online shopping sites such as eBay or Craigslist, but also incorporates user profiles to network with others. The intention is to allow users to get to know people before completing business transactions with one another to lower the chances of fraud. Swamynathan et al. studied the site to see how these profiles and interactions affect the e-commerce of the website and whether there are benefits from mixing social networking and business transactions.

Users of the site are able to upload pictures, what they are interested in buying or selling, other personal interests and hobbies, and links to other contacts and friends with whom they interact. There is also user feedback and ratings similar to eBay and other sites have which allow others to see how well past transactions have gone. A user may create their own "personal network" by inviting people they know to create an account with Overstock Auctions and to become part of their "web of trust" (2). This web allows other contacts to buy or sell to people that they feel can be trusted because of their relationship to one another, also known as shopping from "friends-of-friends" (2). There is also a person's "business network" which is simply past business interactions with other users.

The authors studied over 400,000 users. They found that only 14% of registered users of Overstock Auctions actually had a "personal network" and that the remaining 86% were mostly interested in business networking instead.

However, of those 14%, on average, users who did interact within a "personal network" had a 90% satisfaction rate or higher in their business transactions. Swamynathan et al assumed that this was because business partners were more trusted and reliable when interacting between friends or friends-of-friends and would lower the likelihood of dealing with cheaters and fraudulent sellers/buyers.

They also found that this level of satisfaction was not the same for users who only interacted within their "business network". The farther a person interacted with users away from their "business network" the significantly farther the satisfaction rate would fall while those who interacted further in their "personal network" still received about an 80% satisfaction rate. Overall, the authors found that users who interacted

through the social "personal network" had much higher satisfaction rates than those who only used their "business network" because those in personal networks tended to be more reliable and trustworthy and less likely to be fraudulent.

RAZORFISH – PEERS [5]

Cohen and Clemens studied an application called Peers deployed by the company Razorfish. Razorfish is "a services consulting firm that designs user centered applications and solutions for business and consumer brands" (252). Peers is a social networking tool that allows users to post blogs about creative and new ideas and others are able to read and comment on these blogs. It is intended to promote collaboration among employees in the business by letting others analyze posted ideas and thoughts and expanding on them with their own opinions. Each user gets their own profile and blog space to post interests and photos, and can rate other users' profiles based on their blogs and interactions.

The authors believe that social networking, when used in a business environment, could be an excellent way to gather large amounts of information and help employees work with one another based on the information posted by users. By posting new ideas and knowledge, thoughts that are most popular and interesting will get the attention needed for promotion and may even become a reality. The profile allows people to personalize their page and let everyone else know a bit about themselves, such as interests and experience, so that readers can get an idea their credibility and mindset. In addition, those who do have brilliant, innovative ideas will get more recognition because people are able to find out more about the creator of those ideas. Cohen and Clemens trust that social networking, if implemented in a business environment can "strengthen collaboration and knowledge sharing between its employees" (255) and bring many helpful benefits to the company.

WATERCOOLER [6]

Brzozowski studied WaterCooler, a site designed for Hewlett Packard (HP) to collect internal RSS or Really Simply Syndication feeds, such as blogs, from over 99 different "social media servers" (221) and make a large database of the authors and keywords associated to their posted content. The goal is to create a database that users can access through the site to easily find specific information on posts and can "filter them by source, organization, workgroup, job function, author or keyword" (222). The author surveyed 174 users of

the 3000+ that currently utilize the site and recorded their opinions on usage.

One of the features of WaterCooler is that it will place the most popular or most frequently visited blogs on the home page for premier viewing. 69% of the interviewees checked these posts on a regular basis for new updates and 56% said they would click and read through them. By viewing other happenings within the company, the site gave users a way to learn more about other parts of the organization and other co-workers and peers, as 61% reported WaterCooler was useful for.

Overall, the author concluded that WaterCooler was a great tool to get a larger perception of different collaboration, ideas, and information within Hewlett Packard. By finding popular posts on the front page of the site, users were also able to easily find potentially important, prevalent information. It is an excellent source for finding knowledgeable people within the company on a specific subject and not only reading their material but also getting a hold of them.

ADDITIONAL ADVANTAGES

Another social network called R-U-In? allows users to find and create activities about or related to their interests and hobbies and to find others who share those same interests at those events [7]. The authors of this study, Banerjee et al., believe that this site has great potential to improve collaboration and meet new people with whom one can relate to because of shared tastes. Based on interests listed on one's profile, R-U-In? generates a list of potential events that may appeal to the user. The site has the option to notify users of new get-togethers or changes in ones they are currently interested in by way of SMS or IMs to keep up to date with happenings.

Counts and Geraci researched a social network called Trace, which allowed people who attended an event together to find each other after the event through the site, and have a chance to meet and converse with new people [8]. Each user would sign up at the event then, receive an email afterwards that would connect them to others who attended the same event, and the option to get in contact with them. This allows users to potentially connect because of similar interests or hobbies. If worked on and spread to wider demographic, Trace could become a great tool for meeting new people and expanding relationships.

Jackson et al studied BlogSite, a blogging site for employees of Mega, a "large, global IT company" (1) [19]. The authors found three main benefits for users when utilizing the site: informational benefits by having access to a large source of information from bloggers across the company; social benefits by being able to communicate and learn about co-workers users may not have been in contact with if not for blogging; and other general benefits such as "self expression, working efficiently, and replacing technology" (pg. 5) by means such as new communication methods. There were also general benefits for the corporation through blogging, such as learning about new ideas and information circulating and gaining a larger perspective of its employees' knowledge about the company and their wants and needs.

Goel and Mousavidin studies virtual customer relationship management and how virtual worlds can spread business and new ideas. By creating a virtual representation of a product or service, a company can get feedback from customers on what they like about the product and/or what they would like improved or added. "Customers are given the chance to proactively participate in creating value and express their needs and desires," (58). A virtual product also is readily accessible to a large population of users online and can spread brand awareness.

Several researchers note that social networking can be useful in a world where globalization is the key to making it as a business [6, 9, 11, and 13]. As organizations spread globally, social networks are an excellent tool for connecting employees across several geographic locations [14]. Information is easier to obtain and to share with others through one large network despite distance. "In the online world, a community is often considered the sum of its users and its tools" (1) and without tools, connecting users and information would be more difficult and less organized. IEEE also found that, while studying virtual communities at IBM, when managers/moderators of the community were implemented, there was a greater increase in usage, involvement, and initiative. Having support and guidance from moderators had a great positive effect on users in the community.

Schroter et al. believe that social networking can help managers see how employees communicate and collaborate, and any problems that occur between workers [13]. This allows managers to see when a problem occurs and can intervene and help to fix it. By keeping a record of activity through social net-

works, it also helps organize information that may not have been recorded if communication occurred in situations such as "face-to-face and telephone conversations" (58).

According to Causer, "almost one-fourth of hiring managers are using social networking sites to research job candidates," (1) as stated from CareerBuilder.com. Managers can see if their potential future employees have good writing and communication skills based on posting and interacting with others on the site. If a candidate has information on their profile about community service they've done, academic achievements, etc. then potential employers can get an idea of their personality and work ethic, as opposed to a candidate who writes in internet speak, posts pictures of themselves partying, etc.

Yardi studied employee blogging at Hewlett Packard, and found that users who blogged generally did so externally and internally. The authors believe that bloggers wanted to connect to other employees through work related subjects internally and to connect socially externally about subjects outside of work. Blogging was used a resource to communicate to co-workers through the entire company in an easy and effective manner. Blackwell et al. notes that social networking allows users to express their opinions and thoughts freely and have a "feeling of connectedness" (2760) by interacting with others. The authors also believe that these sites make it easier and quicker to find information, possess the potential to find and/or advance in employment, and that it's simpler for people to come together and organize.

Efimova and Grundin found that employees of Microsoft who web-blogged internally and externally found several advantages for both the individual and the company Efimova and Grundin. Included benefits are the ability to write down ideas and thoughts about work in one's own domain, and for others inside and outside of the company to have open access and the ability to read and comment with their own ideas. "For an employer, [blogging] can result in accelerated information flow, increased productivity and improved reputation and customer engagement," (9).

ADDITIONAL DISADVANTAGES

Brzozowski et al write on employees' motivation to contribute to social media within a business [9]. Without manager support, the contribution rates seemed to significantly decrease, especially if there

were disincentives such as cutting into time on other projects and lack of recognition. However, this could be easily rectified if management realized the potential benefits gained from social networking such as improved collaboration and dispersed information.

Causer writes how employers use social networks to check up on potential employees [15]. However, there is controversy on whether or not this invades privacy since many sites are for personal use and a user may not generally think of being professional. Though most networks allow for privacy controls and limiting who can see what on a person's profile, users should be more cautious about what they say and post online.

Efimova and Grudin found that blogging outside of the company could lead to less control over what is being said publicly, which could become a problem if the wrong information were leaked. After talking to people in several departments, such as legal and management, the authors found there was a lot of negativity due to this lack of control, but the company also realized that if they were too restrictive on blogging, they may lose out on participation and the benefits that come with it.

Several disadvantages from Jackson, Yates and Orlikoski were that blogging is time consuming for users, but most of the interviewees said it was "time well spent" (7). Those who posted also had to be aware that making one's knowledge public and readily available could mean increased responsibility in the future. Although this is not necessarily a bad thing, users must be aware of the possibility.

CONCLUSION

Though there are several disadvantages to using social networks in a professional setting, most problems seem to be easily solved with the correct implementation and controls and with knowledgeable direction from management. The disincentive to contribute to social networks would not remain a problem if management supported the activity and allotted or at least approved time on the clock for such contributions. If companies implement their own network, they can have regulations as to what can be posted such as personal or private information and preventing the possibility of leaking internal information to the public. Users should also be responsible for the own actions and know what is appropriate to say and what is not.

The advantages to using social networks are numerous and can greatly benefit both the employee and the business through widespread information, easy access and improved collaboration. A multitude of researchers have found that social networks are an excellent tool for collecting and organizing information for easy distribution and retrieval. Others have discovered that these networks can make an employee feel more connected to their company by interacting with co-workers and learning more about how different departments work. Benefits such as these make social networking extremely valuable in a professional environment to allow information to flow easily and to connect workers to one another.

Social networking in the workplace is a relatively new subject though, and there is much room for continued and new research on the effects of these tools. Much of current studies seem to concentrate on usage in information technology related work environments but little is explored of the effects on a general business or company. I hope to conduct my own research to target a general work environment and how social networking can benefit any company if correctly used.

From my literature review I've concluded there are four major benefits social networking brings to a company:

- Improved collaboration through new communication mediums
- Relationship growth through employees whom one either has ties to but may not know well or meeting entirely new contacts
- Increased efficiency and effectiveness of information retrieval by collecting and organizing large amounts of information that may not have been easily gathered without the social network
- Spread of new ideas and thoughts to promote innovation and improvement within the company

FUTURE RESEARCH

I would like to interview companies who do not necessarily specialize in information technology and see if implementing social networks within their business will result in the same benefits. To accomplish this, I will have to get in contact with relatively large-sized businesses and with their approval, study either currently utilized social networks or employ one for employees to use and examine the effects of the sites.

My research would consist of general surveys of employees and if they experienced improved collaboration, relationship growth, efficiency, and the spread of new ideas. I would also conduct structured interviews for more detailed responses, such as afterthoughts of the site, any advantages or disadvantages noticed, and how specifically the social network helped them in their work environment. Limitations include actually contacting companies and getting their approval to conduct my research. Finding a company whose employee directory is large enough to have relatively representative results will also be difficult. There would have to be numerous workers who are currently using or would be willing to try a social network for me to study their usage who would be willing to participate in the survey or interview process for me to gather my results as well.

If I succeed in finding an appropriate business to conduct my research through, through surveys and interviews, I would investigate the effects of social networks on its employees and whether or not collaboration improves; users can build on weak relationships or make new ones; information is more easily stored, organized, and obtained; and whether new thoughts and ideas are able to spread because of utilizing the network. My results would contribute to the building research of social networks and their effects in a work environment which hopefully, one day, would allow other companies to see their benefits and consider future implementation of such sites.

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CULTURAL COMPETENCY OF RN TO BSN STUDENTS AT THE UNIVERSITY OF NEVADA, LAS VEGAS SCHOOL OF NURSING

BY SUSAN TAYLOR



ABSTRACT

As the nation grows a more and more diverse population can be seen. In fact, the US Bureau of Census predicts that minorities as we known today will become the majority by 2050. The Bureau of Health Professions strives to increase access to healthcare for these underserved populations. As a result, many medical profession programs have incorporated cultural competency as an integral component of their instructional courses.

The purpose of this study is to establish baseline scores for the *Inventory for Assessing the Process of Cultural Competency among Health Care Professionals- Revised (IAPCC-R)*. This instrument measures levels of cultural competency. As part of a Health Resource and Services administration institutional training grant entitled "Collaborative Approach to Expanding RN to BSN Education," an assessment of cultural competency levels and baseline scores need to be established. These scores will guide the intervention of the grant related to cultural competency. This will then help to prepare BSN nurses to meet the health care demands of a rapidly growing racial and ethnic minority population through integration of cultural competency components throughout RN to BSN curriculum.

INTRODUCTION

In a study done at the University of Utah's Interdisciplinary Health Sciences Students education

program, medicine, nursing, physical therapy, occupational therapy and pharmacy students' pre and post scores of the IAPCC-R were analyzed to determine learning outcomes of the new Cultural Competency & Mutual Respect in Healthcare Program from the Fall 2003 and Spring 2004 semesters. Researchers sought to increase students' cultural competency through four modules of coursework which include relationships and cross-cultural conflict, disparity of care, solutions to cross-cultural clashes, and cross-cultural communication. The program seeks to, "meet the challenges of providing health care in a multicultural world" by responding through enhanced cultural competency. As noted by a general increase in scores, the IAPCC-R scores show that these students became more culturally aware and are progressing towards competence (Musolino, et al. 2008). Betancourt's statement cannot go unnoticed that, "Historically, cultural competency curriculum focused on teaching about specific ethnic groups. This type of training is not effective and can lead to stereotyping as well as oversimplification of cultural influences" (Betancourt, 2005). Rather, it is hypothesized that healthcare providers should continue their education on these issues and several states have since sensibly put into practice CEU requirements for licensure renewals.

As can be seen from the information and data, cultural competency is imperative and is significant contribution to the nursing profession but also provides

data that will guide this project. This project has the potential and identified outcomes of increased cultural competency.

LITERATURE REVIEW

The US growing minority populations have reached all time highs. As stated in the 2000 US Census Bureau reports, 24.9 percent of the 281.4 million residents counted (excluding the Commonwealth of Puerto Rico and the U.S. Island Areas) claim to be of minority populations. These populations are composed of 12.5 percent Hispanic/Latino, 12.9 percent Black/African American, 4.2 percent Asian and 4.1 percent American Indian/Alaska Native as the four largest minority populations. In the last ten years these groups have grown tremendously and estimates show that by 2050 these populations will change quite considerably to approximately less than 53 percent non-Hispanic White, 16 percent Black, 23 percent Hispanic, 10 percent Asian and Pacific Islander and about 1 percent American Indian. From 2007 to 2008 alone, six counties became majority-minority, defined as more than half the population being of a group other than single-race, non-Hispanic white. In fact, since 2007, Clark County, Nevada has the largest numeric increase in Native Hawaiians and other Pacific Islanders (Bernstein, US Census Bureau, 2009). From this information alone we can see that the growing number of people from different backgrounds calls for culturally competent health care providers.

The CDC's Office of Minority Health and Health Disparities acknowledges the growing US population along with health disparities affecting minorities and strives to provide health equality for all by eliminating the gaps for all at-risk groups including those affected by race/ethnicity and socioeconomic status as well as geography, gender, age and disability status. Their office clearly relates that although the overall health of the US population has improved, disparities still exist. Current efforts are not working to provide the same quality of care for all. In fact, some of the evidence for this poor health care can be seen in the following data.

- An estimated 6.4 million African Americans have hypertension. That is nearly 40 percent greater than the number of Whites who suffer from the same. High blood pressure is a major risk factor for coronary heart disease, stroke, kidney disease and heart failure. Coincidentally, African Americans

experience a higher rate of stroke, have more severe strokes, and are twice as likely to die from a stroke as Whites.

- African Americans are 2.1 times as likely as Whites to have diabetes and are more likely to experience complications such as amputations of lower extremities and end-stage renal disease. American Indians/Alaska Natives are 2.3 times as likely to have diabetes as Whites of similar age. Hispanics are 1.7 times as likely to have diabetes as Whites; the largest Hispanic subgroup being Mexican-Americans who are more than twice as likely. Obviously, there is a disproportion of racial and ethnic minority groups affected by diabetes.
- There is also inconsistency with effects of cancer on racial and ethnic populations. African Americans are 21 percent as likely as Whites to die from all types of cancer. African American men are 50 percent more likely to die from prostate cancer than Whites. African American women are 36 percent more likely to die from breast cancer than White women even though they are diagnosed with the disease 10 percent less frequently. Hispanic women are 2.2 times more likely to be diagnosed with cervical cancer than their white counterparts. Asian/Pacific Islander women are 2.7 times more likely to be diagnosed with stomach cancer than Whites. Asian American men suffer from stomach cancer 93 percent more often than Whites.
- Prenatal care is vital for a developing fetus. Mexican American and African American mothers are more than 2.5 times as likely as non-Hispanic White mothers to begin prenatal care in the third trimester, or not receive prenatal care at all (NCHS, 2006b, Table 7).
- Access to health care is one of the most pressing issues in today's health care system. Nearly half, 49 percent, of Hispanics and 28 percent of African Americans adults ages 18 to 64 were uninsured during 2006 compared with 21 percent of Whites and 18 percent of Asian Americans.

In addition to these general statistics of health disparities, the US health care system creates challenges and barriers for special populations in accessing health care services. These medically underserved populations are vulnerable because of unequal social, economic, health and geographic conditions (Shi & Singh, 2008).

According to Laiyu Shi and Douglas Singh- in their text "Delivering Health Care in America," Black Americans are more economically challenged than their white counterparts. They have shorter life expectancies, black males at 69 years of age while white males are at 75 years of age. Blacks have higher death rates for leading causes of death (diseases of the heart, cerebrovascular diseases, chronic lower respiratory diseases, influenza and pneumonia, chronic liver disease, diabetes, HIV, unintentional injuries, suicide, and homicide) at 1,066 per 100,000 while Whites are at 817, and all persons are at 832 per 100,000 standard population. They also suffer from higher maternal mortality rates and higher infant mortality rates. Shi and Singh do not provide reasoning for these happenings except that in 2004 an estimated 19.7 percent of Blacks were uninsured which then has a negative effect on their health status because they have systematic barriers to accessing health care.

The authors do provide a more in depth analysis as to why Hispanics suffer from health care disparities. The Hispanic segment of the US population is the youngest and fastest growing minority population. In 2007, it grew 20.9 percent while the total US population grew only 5.3 percent, according the US Census Bureau. This population suffers from the same disparities as do Blacks, along with higher rates of Asthma. In particular, this population can attribute its poor health to low education leading to higher unemployment and limited access to health care. It is noted that in 2005 only 58.5 percent of Hispanics age 25 and older had completed high school, compared to 87.5 percent of Whites, and only 12 percent had completed college, compared to 28 percent of Whites. Due to low education, they are more likely to work in semi-skilled, nonprofessional occupations. Also, their unemployment rate is higher than that of Whites, 4.8 percent versus 3.5 percent in 2005. This is then related to poor to no health insurance coverage. In 2004, 34.4 percent of Hispanics were uninsured compared to 12 percent of Whites.

To provide some differentiation, Asian Americans, on the other hand, do not undergo all of the same situations as Blacks and Hispanics. This population is very diverse in education and income and thus do not have the same limitations to health care. They present plenty of competition for Whites with 50.1 percent having a bachelor's degree compared to 28 percent of Whites in 2005. The main difference here

is that cultural practices may prevent them from receiving adequate care. For example, women may not be receiving ample breast cancer screenings and prenatal care for some cultural reasons. This is a prime example of why nurses need to be culturally competent when providing care to diverse populations.

The US Department of Health & Human Services' Agency for Healthcare Research and Quality addresses these racial and ethnic disparities in health care by summarizing the concerns to these basic and obvious causes: access to primary care and diagnosis and treatment. Getting primary care on a regular basis, as research shows, is a way to ensure that people are receiving preventative care. Leaving illness until it is too severe is what causes high health care costs later. Preventative care can reduce the risk of many leading causes of death. The AHRQ reports that about 30 percent of Hispanic and 20 percent of black Americans lack a usual source of health care compared with less than 16 percent of Whites. Also, Hispanic children are nearly three times as likely as White children to have no usual source of health care. Interestingly enough, race and ethnicity have had an influence on referrals, specific procedures and treatments given to people of different backgrounds. Observation at several medical centers was done to show that, in general:

- African Americans are 13 percent less likely to undergo coronary angioplasty and one-third less likely to undergo bypass surgery than are Whites.
- Only 7 percent of Black and 2 percent of Hispanic preschool children are hospitalized for Asthma and prescribed routine medications to prevent future asthma-related hospitalizations compared with 21 percent of White children.
- For Asian, Black and Hispanic women the length of time between an abnormal screening mammogram and the follow-up diagnostic test to determine whether she has breast cancer is more than twice as long.
- Although more research is being done to identify new patterns in treatment, African Americans with HIV are less likely to be on antiretroviral therapy, less likely to receive prophylaxis for *Pneumocystis pneumonia* and less likely to be receiving protease inhibitors than other persons with HIV
- Asian, Hispanic, and African American residents of nursing homes are less likely than White resi

dents to have things such as glasses and hearing aids.

After these discoveries in disparity issues, the AHRQ states that although these realizations are important, it is more important to identify why they exist and how to develop strategies in better quality care to address them.

There have been many studies in the late 1990s measuring the level of comfort in providing transcultural nursing care, confidence and comfort levels working in multicultural populations, and personal attitudes of practicing nurses toward culturally diverse patients and their knowledge of specific cultural practices. Since then studies have shown how important it is for health care professionals to keep up with the rapidly growing and ethnically diverse patient population. At first, there was low minority student enrollment in nursing programs. Those numbers have increased minimally, but are still improving.

In a descriptive study done by Bond, Kardong-Edgren and Jones in 2001, a convenience sample of 152 students (62 registered nurses to bachelor of science nurses [RN to BSN]; 48 bachelor of science nurses [BSN]; and 42 master of science nurses [MSN]) enrolled in a school of nursing in the Dallas-Fort Worth metroplex was used to examine the personal attitudes towards culturally diverse patients and their perceived knowledge of specific cultural practices and culture specific skills. Three instruments were used: the Ethnic Attitude Scale-Part I, the Transcultural Questionnaire and a demographic survey. The EAS is a self administered questionnaire consisting of three scenarios describing three ethnic groups (Anglo, African American and Hispanic). Each clinical scenario describes the family and respondents are asked to the questions which measure attitudes related to providing care for patients in each group. The transcultural questionnaire and Likert-type scale measured level of confidence in caring for different ethnic groups. Finally, a 12 item demographic survey requested information on the participants. Majority of these students were White and of non-Hispanic origin.

Results concluded that there was no significant difference in attitudes associated with program type or ethnic group; all of the students had relatively positive attitudes toward the three ethnic groups. Generic BSN students scored higher on knowledge of cultural concepts than either RN to BSN or MSN students. There were no significant differences between attitude toward an ethnic group and knowledge of that

group's culture. Surprisingly, BSN students tested having a higher cultural knowledge even though RN to BSN students have more field experience in dealing with persons of various ethnic groups and may have acquired some knowledge of other cultures; and even though majority of RN to BSN and MSN students reported having taken previous curriculum on cultural diversity. Although, BSN students are younger and could have had similar cross-cultural experiences in social encounters in an increasingly ethnically diverse society. Also, nearly half of them work in health care settings while in school where they can reinforce what they are learning in the classroom about cultural content. Curricula context varies among schools. The BSN students were enrolled in their junior or senior year when the cultural content has already been introduced. RN to BSN students matriculate from many different schools where the cultural content they received will vary, but once they are in this program they will all be exposed to similar cultural content. Overall there was a relatively low knowledge base of culture for all three student groups showing that nurse educators need to re-examine their teaching strategies in these subjects, (Bond, Jones, & Kardong-Edgren, 2001).

Kardong-Edgren also performed a randomized, stratified, descriptive, cross-sectional survey using Bacote's IAPCC-R with a convenience sample of 170 randomly selected BSN program faculty to assess their cultural competence. Of course, in order to teach cultural competency it is necessary for the educators to be culturally competent themselves. Kardong-Edgren defined cultural competence as, "the process in which the healthcare provider continuously strives to achieve the ability to effectively work within the cultural context of a client, individual, family or community," and asks questions such as, "What has been most helpful in increasing your comfort level teaching and taking care of people from other cultures?" Information about their academic preparation and current employment was also collected. It is not surprising in the late 1980s studies showed that there was an inadequate supply of faculty qualified to teach cultural content and in 2002 still 80 percent of faculty were White, middle aged and of the middle class. This is not to say that their desire to learn about other cultures was begat or that non-Whites were more apt to teach about other cultures. The 25 item tool encompasses five constructs: cultural desire, cultural awareness, cultural knowledge, cultural skill and cultural encounters. Bacote defines these constructs in the following manner:

- Desire is the basis for the other constructs and represents the desire to know about and be skillful in cultural encounters.
- Awareness is the recognition of ethnocentrism and the potential for cultural imposition. This can be demonstrated by integrating other worldviews and approaches to health care in to one's practice.
- Knowledge includes information about health beliefs and practices, disease incidence and prevalence, and treatment efficacy.
- Skill can be developed by using awareness and knowledge to conduct holistic and culturally relevant physical assessments.
- Encounters are where one puts those cultural skills into practice.

Scores between 91 and 100 on the survey indicate cultural proficiency; 75 to 90 indicates cultural competence; 51 to 74 indicates cultural awareness; 25 to 50 indicates cultural incompetence. Data from two groups was compared, faculty from states with most immigrant and those with least immigrants, as identified by the Center for Immigration Studies.

Results show that between the two groups, the mean score of states with most immigrants was 77.09, or culturally competent, as opposed to those in states with least immigrant whose mean was 74.28, or culturally aware. There were no marked differences in academic preparation between the groups and no significant difference was associated with the year they received their highest degree. Majority of respondents reported no ability to speak a foreign language, only 10 persons reported fluency in another language. The most frequent response to the open ended question was some sort of immersion experience or working in another culture. (Kardong-Edgren, 2007)

SUMMARY OF THE LITERATURE REVIEW

As can be seen above, the growing minority population and health disparities among that population demand a more culturally competent healthcare workforce. One way to create this more culturally competent workforce is to integrate culture into the nursing curricula. As most student and faculty would say, the best and most efficient way they have learned about other cultures is through hands on experience and immersion. There is a need to establish a baseline level of where our students fall on this scale and determine from there how to better implement curriculum to help those levels rise.

METHODOLOGY

The randomized, descriptive survey design used Campinha-Bacote's *Inventory for Assessing the Process of Cultural Competency among Health Care Professionals- Revised (IAPCC-R)* to assess the cultural competence of a convenience sample size of 16 randomly selected RN to baccalaureate nursing (BSN) students. The IAPCC-R is a 25 item tool that uses five corresponding questions to assess the five model constructs. Survey items are scored with a four-point Likert scale, positive-to-negative. Once a total score is computed, competence can be determined. Someone who is culturally proficient shall score between 91 and 100, culturally competent shall score between 75 and 90, culturally aware shall score between 51 and 74, and someone who is culturally incompetent shall score between 25 and 50. IAPCC-R is the most widely used instrument to measure cultural competency in the nursing literature. Reliability has been established for several previous studies; Cronbach's alpha for this study was 0.77. Demographic information about the participants has not yet been collected.

Students who are beginning the RN-BSN program were given a pretest to establish baseline scores on cultural competency upon their entrance to the program. The program's curriculum does include cultural competence; however, further study will be done, including a post test, to confirm that there is improvement in the students' levels of cultural competence upon exiting the program. This assessment will serve as the pretest to answer the question: What is the level of the ADN on cultural competency going into the RN-BSN program?

Campinha-Bacote's cultural competence model encompasses five constructs including cultural desire, cultural awareness, cultural knowledge, cultural skill, and cultural encounters. Campinha-Bacote describes cultural competence as, "a process, not an event; a journey, not a destination" (Medscape Nurses, 2005). These five interrelated constructs can be defined as such. Cultural desire is the wish to know about and be skillful in cultural encounters. This is the basis for the other constructs. Cultural awareness is the "recognition of ethnocentrism and the potential for cultural imposition. Integrating other world views and approaches to health care into one's practice demonstrates cultural awareness" (Kardong-Edgren, 2007). Cultural knowledge is information about health beliefs and practices. From being culturally aware one can begin to learn what affects each of these groups more specifically. Cultural skill is

developed by using cultural awareness and knowledge to conduct culturally appropriate assessments and give patient care that is culturally relevant. Finally, cultural encounters are interactions where one puts their cultural skills into practice.

Various limitations which may have occurred include a small sample size and only using students in one region, Las Vegas. This may not accurately reflect all RN-BSN students. Las Vegas is a very diverse large city; thus perhaps more students are culturally aware than in other regions. The study must continue and more students should take the pre test upon entry into the program. As the program grows, the results will reflect the population better. These results should then be compared to other regions of the country. Curriculum should vary among different RN to BSN programs to suit the needs of those students.

RESULTS

As it turns out, the University of Nevada, Las Vegas RN to BSN students are more or less culturally aware. Of sample size $n=16$, nine students scored "culturally competent" and the other seven students "culturally aware." No students scored in either extreme, culturally proficient and culturally incompetent. Average scores by component are as such: cultural desire 93.23%, cultural awareness, 75.55%, cultural knowledge, 66.11%, cultural skill, 79.68%, and cultural encounters, 78.23%. Thus, a very high number of students desire to know and learn about culture, but few have much cultural knowledge. This could be a bi-product of the approach of not teaching about specific ethnic groups as to avoid generalizations and stereotyping.

CONCLUSION

From these baseline scores, the RN to BSN program shall accommodate its curriculum to improve all areas of cultural competency. As Campinha-Bacote explains that cultural desire is the pivotal construct, it is reasonable say that Las Vegas students have a good start to becoming potentially very culturally proficient nurses.

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2010 MCNAIR SCHOLAR ARTICLES

THE USAGE OF CODE-SWITCHING WITHIN LATIN MUSIC OF A DOMINICAN-AMERICAN MUSICAL GROUP

BY DANETTA BRADLEY



ABSTRACT

The mixture of the Spanish and English languages in today's society has created different ways of communicating. By combining both of these languages there has been a heavy emphasis on the study of Spanglish and on another phenomenon called code-switching. Through its many viewpoints and definitions Spanglish is best characterized by the authors Klee and Lynch as "palabras que se habían integrado fonológicamente al español.....rufo (roof ~techo), bosa (boss ~ jefe), carpeta (carpet ~ alfombra), guachimán (watchman ~ vigilante)....."¹ (269). Code-switching is a phenomenon that has often been intertwined with Spanglish, but they are actually different from one another. According to Callahan, "Code-switching is the use of words and structures from more than one language or linguistic variety by the same speaker within the same speech situation, conversation or utterance" (13) or it simply can be defined as the alternating of words from one language to another during a simple statement or discourse. Due to this, code-switching is very common in everyday life and used quite frequently, especially when it comes to music, Latin music. The purpose of this study will allow us to take a further in depth look on the usage of code-switching within a popular Dominican-American Bachata band, by analyzing the lyrics of one of their songs.

INTRODUCTION

In regards to code-switching it is a topic that has been researched by many Hispanic Linguistic and Psychology/Sociology researchers. A very well-known researcher is John M. Lipski who is Edwin Erle Sparks Professor of Spanish and Linguistics in the Department of Spanish, Italian, and Portuguese at Pennsylvania State University. According to his biography at Penn State, Lipski is the author of more than 200 articles on all aspects of linguistics and he is also editor of the journal *Hispanic Linguistics* and has served as associate editor of *Hispania* for *Theoretical Linguistics*. Then there are also journalists, bloggers, and magazine editors that have written about code-switching because it is so frequently used. For example in a Spanish Blog website, Cristina E. Pereda wrote an article published in July 2010 comparing the different definitions and viewpoints from other researchers and commenting on them. Ana Flores who is the co-author of "Spanglish Baby" and also a journalist is mentioned frequently in Pereda's article, partly because Flores book was designed for parents of bilingual children and the other part because the book goes into great detail about the phenomenon Spanglish in which Flores' explains that it has very close similarities to code-switching. Pereda also states, "La práctica de intercambiar términos entre dos idiomas contribuye a la participación social de los hispanohablantes en Estados Unidos."² This statement proves to be true

and an important factor after looking into the band member's background that we will see later on in this project.

This study is being designed in order to increase the awareness of code-switching in Latin music because there has not been much written about it from a linguistic perspective, but it has become increasingly popular in literature studies. For example, originally published in 2004 *"Killer Crónicas,"* a book written by Susan Chávez-Silverman (a professor at Pomona College in California) is a memoir of her life while living in Buenos Aires that code-switches back and forth from Spanish to English and vice versa. In addition Chávez-Silverman grew up in Los Angeles being exposed to both the American culture of where she grew up and also Hispanic culture because of her parents. Sandra Cisneros is another author who was exposed to both the American and Hispanic cultures. From a young age who incorporates Spanish into her English writing or vice versa as well. Cisneros uses this structure in order to better convey the meaning of what she is trying to express. She is best known for being the author of *"The House on Mango Street"* which is a coming of age novel about a young Latina girl growing up in Chicago, who is trying to escape from her impoverished neighborhood.

LITERATURE REVIEW

As mentioned earlier, there have not been many studies that have had an emphasis on the combination of code-switching and Latin music. As of now, there have been only two studies identified that incorporate Latin music and code-switching, both of which are authored by Linda Ohlson. The first study published in 2007, happens to be a thesis titled *"Baby I'm sorry, te juro, I'm sorry: Subjetivización versus objetivización mediante el cambio de código inglés/español en la letra de una canción de bachata actual"* and an actual book written by the same author and published in 2008 titled *"Soy el brother de dos lenguas...." El cambio de código en la música popular contemporánea de los hispanos en los Estados Unidos.* The first work published by the author analyzes the lyrics of a Bachata song and focuses on the effects of code-switching in regards to the subjectification and objectification aspects. Subjectification occurs when a statement has been colored by the character of the speaker or writer. It often has a basis in reality, but reflects the perspective through which the speaker views reality. On the other hand, objectification is the opposite of subjectification

because it is a statement that is completely unbiased. It is not altered by the speaker's previous experiences or views of reality; there is no emotional involvement. In the outcome of this study it is mentioned that the use of code-switching in the lyrics is purposely used more for subjectification because it evokes more emotion, personal involvement and experience in the song.

Subjectification in the lyrics of a Latin song that contains code-switching is a common characteristic. It enables the audience to have a deeper connection to the artist/s who is singing the song. This personal relationship that is developed between the audience and the artist/s helps the audience to identify more with the message that is being presented in the lyrics. According to Kathryn Wooward as reiterated by Ohlson, "Identity gives us the idea of who we are and how we relate to others and to the world in which we live" (Ohlson, 2008: 38); Therefore the lyrics are very similar in helping the audience discover their identity because of two cultures surrounding them, both the Hispanic and American Cultures.

"Soy el brother de dos lenguas...." El cambio de código en la música popular contemporánea de los hispanos en los Estados Unidos focuses on more than just subjectification and objectification of code-switching in contemporary popular music of Hispanics in the United States. This book discusses in great detail how code-switching in Latin music fulfills a large number of pragmatic and stylistic functions, such as creating contrasts in the texts, elaborating utterances, creating stylistic variation, making the addressee's identity, responding to the context of the utterance, facilitating rhyme, and in response to words or expressions that have no easy translation (Ohlson, 2008: 8).

Another study that proved to be extremely useful was written by two psychologists Heredia and Altarriba, *"Bilingual Language Mixing: Why Do Bilinguals Code-Switch?"* published in 2007. Within this study it is noted that the most common users of code-switching are bilinguals who often code-switch from one language to another because of their exposure and usage of both languages in a single environment. The study also mentions that there can be two reasons why bilinguals code-switch. The first reason is because they lack language proficiency; meaning that bilinguals code-switch because they do not know either language com-

pletely and the other reason is because they code-switch in order to be better understood (Altarriba 165). For example if a Spanish speaker is trying to describe a certain type of Spanish food to an English speaker. If he or she forgets the name of it in English or if there is no word in English that will describe it, then he or she will say it in Spanish. With the second reason it gives the idea that some ideas are better communicated in one language than the other (Altarriba 165). In the article Altarriba uses the example of "cariño" as an example of this (165). It states that the Spanish word "cariño" implies a combination of liking and affection and that neither of these English words alone truly conveys the meaning of the Spanish word; therefore two Spanish-English bilinguals conversing in English would achieve a greater level of understanding by using this Spanish word if they wanted to refer to this concept (165).

As noted in the previous studies by Ohlson, there are many genres of Latin music; for example there is Bachata, Cumbia, Merengue, Mariachi, Reggaeton, Salsa, Latin Pop, Latin Hip Hop and Rap. The most dominant genre that was found within this study that features code-switching is Bachata. Therefore the focus of this study will be based on Bachata partially because of its popularity and accessibility of the music available. In short, Bachata is a genre of Latin music that was developed in the Dominican Republic around the 1960's. This type of music is a mixture of traditional Latin/Caribbean rhythms which infuses guitar based music in order to bring out or help tell the story of the song. It closely almost resembles blues music. Within this study we will refer to one specific Bachata group that has been popular over recent years.

METHODOLOGY

After intensive reading of this subject, the first step of this research was to locate a specific band, in order to analyze lyrics of one of their songs. This selection process proved to be a very overwhelming task. There are many popular Latin groups and trying to find one specifically that mixes the English and Spanish language equally was very complicated. There were a lot of songs that had the introduction part in English and the rest of the lyrics were in Spanish or vice versa. Another inconvenience was that most of the lyrics were all in Spanish, but then there would be ad-libbing in the English language. Another issue in selecting the group was that many Latin artists are cross-over performers and they do

not necessarily code-switch within their lyrics. These artists will compile a record solely in Spanish and then translate the same album into an English language album. After spending a considerable amount of time trying to locate an artist it was determined that the study would be completed on a Dominican American Bachata group.

The name of the group chosen in order to get a good representative sample of their music is known as Aventura. Aventura is a Dominican American Bachata group that was founded in 1994. According to their website, *The Official Aventura Website*, this group consists of four male members (ranging in the ages of 29 through 31) and all of Dominican descent. Anthony Santos who is the Lead-singer and composer of the group was born and raised in Bronx, New York to a Puerto Rican mother and a Dominican father. Lenny Santos the group's guitarist and musical producer/arranger was also born and raised in Bronx, New York, but to both Dominican parents. Max "Mikey" Agende Santos, the group's bass player is the brother of Lenny Santos who was also born and raised in Bronx, New York with the same parents. Lastly Henry Santos Jeter, the singer and composer was born in Moca, Dominican Republic and he did not move to New York until he was around 14. Because of their upbringing all of the member's were exposed to both the English and Spanish Languages, in turn making them all bilingual speakers. This group was chosen primarily because of the popularity and widely available information available for research. Another factor is that the entire group is from Latin descent and they were all raised. In America making their music more popular amongst people who have similar backgrounds of the two mixed cultures, American and Latin/Hispanic.

The next step in the research process was to locate a song in order to analyze. This process did not take as long as trying to find the group to use, but it did prove to be a challenge due to the fact that this group has composed six albums. After examining several songs, there was one song that was chosen from this group that was based off of the significant amount of code-switching presented in it. The song was off of the group's 2005 album *God's Project* titled "Our Song." In order to help provide a clearer understanding, the lyrics are provided next page.

"Our Song"

Spoken: Have you ever loved someone so much?
That even though you know you got to
go...
You just don't know how to let go...
That's how I feel about her...

Come On
Come On
Come On

Hey...
It's your Romeo girl...
Y Aventura...

Sung: If tomorrow you feel lonely it's ok...
Te prometo princesita volveré...
Please stop the crying...
Se me va el avión...
When you miss me...
Pon nuestra canción...
Aquella canción de amor...
Que nos fascina a los dos...
The song we always play...
When we make sweet love...
Me da pena sorry that I have to go...
No me digas adiós...
Sometimes in life you don't get what
you want...
Me duele mucho tenerme que alejar...
Baby girl you know well you're my
boo...
Y te prometo que en mi mente estarás
tú...
Y aquella canción de amor...
Que nos fascina a los dos...
The song we always play...
When we make sweet love...
Me da pena sorry that I have to go...
No me digas adiós...

Tell me that you miss me...
Tell me that you love me and you need
me...
Say it girl...
Before I go...
Dime que me amas...
Dime que de lejos tú me extrañas...
Dime esas palabras...
Me voy mi amor...
Tell me that you miss me...
Tell me that you love me and you need

me...
Say it girl...
Before I go...

Spoken: Let me hear that Playboy...
Come On...
Come On...
Come On...
Come On...
You know I love you girl...

Sung: Mi cielo it's not over don't you cry...
Con tu mirada y tu tristeza voy a llorar...
Yo sé que piensas que esto ya llegó al
final...
Pero en tu radio you will hear a lullaby...
Y aquella canción de amor...
Que nos fascina a los dos...
The song we always play...
When we make sweet love...
Me da pena sorry that I have to go...
No me digas adiós... (Please Don't Say
Goodbye)

Tell me that you miss me...
Tell me that you love me and you need
me...
Say it girl...
Before I go...
Dime que me amas...
Dime que de lejos tú me extrañas...
Dime esas palabras...
Me voy mi amor...
Tell me that you miss me...
Tell me that you love me and you need
me...
Say it girl...
Before I go...

RESULTS/FINDINGS

As already mentioned there is a significant amount of code-switching, in this song because the lyrics are almost half English and half Spanish. One of the first things noticed about this song before the lyrics are even read is that the title is in English "Our Song." From this title alone it is automatically assumed that this song will be primarily in English and even as the song starts this would seem to be true. As we start to analyze this song it is noted that the beginning lyrics are in English and they are spoken (as opposed to being sung). This also happens

to be a pattern within the song, because all the spoken lyrics within this song are in English. As the singing portion begins, so does the code-switching. Within the lyrics the song is composed of full verses in either the English or Spanish language, as the song continues half of the verse is English and the other half Spanish. The lyrics appear to be representing the two cultures, American and Latin/Hispanic that are being merged together because of the band member's upbringing that is reflected in the song.

There happens to be a difference in the use of both languages that the writer is trying to set forth. (This is also very similar to the investigation of the subjectification versus objectification study.) The Spanish lyrics are used more for the emotional effect and seem to be more reassuring, while the English language lyrics are more straightforward and to the point. It is as if the band uses English to cause the pain and then uses Spanish as comfort. For example the song starts off as "If tomorrow you feel lonely it's ok" signifying that it is okay to hurt and be in emotional pain and then the next verse in Spanish states "Te prometo princesita volveré"³ and in this statement he is reassuring her that the hurt will not last. This statement is also personalized with the usage of the word "princesita" which in English translates to "little princess" which also adds emphasis by being used as a term of endearment. Another example of this is where it states "Sometimes in life we don't get what we want" in English and then in Spanish it reads "Me duele mucho tenerme que alejar."⁴ Again in this last statement he is reassuring her in Spanish that she is not the only one hurting, the singer is again personalizing the statement by expressing his feelings.

The Spanish lyrics also seem to have a deeper connection to the girl that he is singing to. In the lyrics, "Y te prometo que en mi mente estarás tú...Y aquella canción de amor...Que nos fascina a los dos..."⁵. There is a connection that the singer and the girl have as if this is the language that they share between the two that no one else shares. Another notion which suggests that the singer and the girl have a deeper connection with the Spanish lyrics is because all of the terms of endearment are sung in Spanish.... "princesita" (little princess), "mi amor" (my love), and "mi cielo" (my sky).

Based on the differences mentioned and if we

focus back on Altarriba's study where he mentions that another reason why bilingual's code-switch is because it gives the idea that some concepts are better communicated in one language than the other (165), this especially holds true to what this song is trying to convey. As Altarriba uses the example of "cariño" and how the term is better expressed in Spanish because in English it has two connotations; this study further confirms the reason why code-switching was used in this song. The use of code-switching within the lyrics helps convey the meaning of what is trying to be expressed and therefore it does achieve a greater level of understanding by bilingual speakers. Through the use of code-switching these individuals who are being brought up with two cultures, American and Hispanic/Latin are able to relate better to the band and their music.

CONCLUSION

There are many more areas to explore when investigating code-switching and Latin music as we have seen the different areas made available to us by Ohlson in her book "Soy el brother de dos lenguas..." El cambio de código en la música popular contemporánea de los hispanos en los Estados Unidos." More researching about code-switching within songs needs to be done in order to get an insight about the function of code-switching within a wider corpus from different music styles, not only Latin music, to better understand the utilization of it and to obtain resounding conclusions or a number of characteristics/patterns that apply to them all. This research would require an extensive amount of investigation which includes, looking into the background and lives of the artist/s and conducting interviews with the actual artist/s would prove to be beneficial to get their input. The information received by the artist/s could either reinforce or contradict the arguments brought forth in previous studies.

As for now, this study is designed to give a first look at the basics of why code-switching was used in a Latin song by a Dominican American band. It is shown that code-switching is a common phenomenon that occurs amongst bilinguals. From the examples, the users in this study who write books or compose songs are individuals from Hispanic/Latin descent who were exposed to the American culture by growing up in an American/English speaking and living environment. The intertwining

of these two cultures has an effect on how the music is produced. It is also shown how both languages fulfill different functions when they are both used. There is much more information to explore about code-switching in Latin music because it is a new phenomenon which will continue to be on the rise.

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Footnotes

- ¹ Words that integrated into Spanish phonologically.....
- ² The practice of interchanging terms between two languages contributes to the social participation of Spanish Speakers in the United States.
- ³ I promise you princess I will return.
- ⁴ It hurts me a lot that I have to leave.
- ⁵ I promise you in my mind you will be.....and that love song.....that fascinates the both of us...



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WHAT IS THE BEST METHOD TO MEASURE DUST SAMPLES USING A HPGE DETECTOR?

BY SAJAR CAMARA



ABSTRACT

Las Vegas is among major cities concerned with air quality. One of the major causes of air pollution in our valley is dust emission. This could be due to natural emissions caused by wind erosion or traffic-related emissions such as off-road vehicle (ORV) driving. In April, 2010, the Clark County Air Quality Control Department issued a dust-control advisory warning residents of high level winds between 21 mph and 25 mph with "gust as high as 43 mph" (Rogers, 2010). The Nellis Dunes Recreational Area (NDRA) about 15 miles north east of Las Vegas is being used for off-road vehicle driving for recreational purposes (Fig 2). The dust created by off-road vehicle driving could be inhaled especially if someone is nearby or at times when it is really windy. Dust and soil samples from the NDRA area are also known to contain chemical elements such as Arsenic (As), Cobalt (Co), Cesium (Cs), and many more (Soukup, et al 2009). In addition the dust also contains radioactive isotopes which if inhaled may cause serious health effects. In particular, some major radioisotopes contained in soil samples collected from NDRA included Ac-228, Pb-212, Bi-212, Th-231 and 232, U-235, U-238, Cs-137 and K-40 (Sudowe et al. 2009).

INTRODUCTION

Dust particles emitted can easily enter our respiratory system. However, the degree and pathway of entry would depend on the size of the dust parti-

cles. Small particles are likely to cause more harm because they enter deep into the "alveoli" whereas large size particles go just as far as the "upper respiratory tract" (Rothe, 2008). For example, there is a direct link between asthma and traffic-related pollution involving particle matter less than 2.5 micrometer diameter (Gent, 2009).

This project will focus on the analysis of small dust samples using gamma spectroscopy. The same methodology was used in previous research for the analysis of soil samples; however the main objective of this project is to determine the radionuclide concentration in the dust samples collected from NDRA. Each dust sample will be measured twice. The sample will first be measured in a Petri dish and then measured in a vial to determine the difference in counting efficiency of the detector when using both methods. This will ascertain the best possible way to measure extremely small dust samples through gamma spectroscopy using a germanium detector. The project will therefore help future researchers who will be working to determine radionuclide concentration of dust or soil samples. The outcome of this study should indicate a high net peak area in the spectra of samples measured in the Vial geometry as opposed to the Petri Dish. This would provide a better way to measure dust samples.

LITERATURE REVIEW

This study is a continuation of the ongoing research on dust emission and the analysis of dust samples collected from the vicinity of Nellis Dunes Recreation Area (NDRA). Different researchers are using a variety of methods to analyze these samples. A current survey on the "Mineralogical composition of Soil and Dust Samples, Nellis Dunes, Nevada", (Soukup et al 2009), used x-ray diffraction to analyze soil and dust samples collected from Nellis Dunes area. Preliminary results show traces of minerals such as palygorskite that may be potentially biologically harmful. The researchers used 17 dust stations each representing one of 17 different surface types around a specified surface unit map of NDRA (Fig. 5). This was a part of the project that McLaurin, Goussens, and Buck conducted in their research called "Surficial Mapping for Managing Dust Emissions." They mapped the area by dividing it into 17 surface types and grouping them into four major soil types. All samples involved in this experiment and others related to it were collected within the perimeters of this mapping area.

Researchers also used these 17 surface types to scan samples for chemical elements that are known to be hazardous to the environment. According to Debbie Soukup et al, they found elements "of potential concern" such as Arsenic (As), Strontium (Sr), Uranium (U) in the samples using "inductively coupled plasma mass spectroscopy (ICP-MS)" to analyze both the dust and soil samples.

Again using the same mapping area, there is ongoing research on the "Radionuclide Characterization of Nellis Dunes Recreation Area Soils and Dust" to determine the radionuclide concentrations of soil samples. As reported in their findings, Sudowe et al found the radioisotopes "Ac-228, Pb-212, Bi-212" that are all daughter radionuclides from the thorium (Th-232) decay series in some of the samples. Thorium is common in crustal rocks with about an average 12 ppm in most cases. In addition the isotopes Th-231, K-40, Uranium (U-235), and Cs-137 were also found. U-235 is a naturally occurring isotope with just 0.72% of abundance. These alpha emitting radionuclides have a short range and "they may cause harm if they are incorporated in the body through inhalation or digestion" Sudowe et al suggested. The researchers used a germanium

gamma detector to measure samples and using a certified soil reference standard for calibrations.

Germanium gamma detectors are unique in the sense that they are only operational under cold temperatures of about 77K (Knoll, 1989). They are cooled to minimize the amount of energy loss that would have occurred if they were operating under room temperatures. This is effectively carried out by using liquid nitrogen stored in an enclosed container called a Dewar that is connected to the detector. The detector itself is contained in a "vacuum-tight" (Knoll, 1989) cryostat to "inhibit thermal conductivity between the crystal and the surrounding air" (Knoll, 1989).

High-purity Germanium gamma detectors (HPGe) have a better energy resolution than the Sodium Iodide Scintillation NaI (Tl) that is thallium activated (Tsoulfanidis, 1995). This helps to separate closely spaced peaks to better distinguish weak energies from strong ones when they are all on the same broad continuum. Because they can widen the space between gamma-ray energies than NaI (Tl) detectors would, they are very useful in gamma-ray spectroscopy to analyze complicated energy spectra. Even though (Ge) detectors will have a higher energy resolution, the NaI (Tl) detectors have a higher counting efficiency because of their larger size and high density (Tsoulfanidis, 1995). This manifests itself in a larger area under the peaks because of the larger atomic size of the iodine element. Based on a 70/20 peak ratio the HPGe has a peak 3.5 times higher than a normal NaI detector (Tsoulfanidis, 1995). Due to the large atomic size most of the incident photon energy is completely absorbed in the crystal through the photoelectric effect. On the other hand, due to the smaller size of the germanium atom the peaks are lower and will generally show a broader continuum on its spectra. This is because most of the incoming energy is either partially absorbed in Compton scattering or escapes in case of pair-production. Therefore one or two smaller peaks will generally appear before the full-energy peak on the spectra. Typical germanium detector spectra will show a Compton continuum. The Compton electrons are the main contributory factors for the continuous part of the spectrum. The end of the Compton continuum is called the Compton edge which is a result of Compton scattering taking place. The rise

in the continuum near the Compton edge is due to high energy resolution of the germanium detector (Knoll, 1989). Germanium detector spectra will also show a backscatter peak anywhere from 0.2-0.25 MeV caused by scattering of gamma rays as they interact in the medium. A full energy peak is created when photon produce energies that corresponds to the initial photon energy.

Escape peaks are common characteristics of germanium detector spectra. This usually happen if a fixed amount of energy may be lost due to attenuation. If the energy of the incident gamma ray is low characteristic x-ray escapes from the detector following photoelectric absorption. In case of high energy gamma rays the escape of annihilation radiation following pair production will likely occur. The pair production process consists of creating an electron positron pair. However, in gamma spectroscopy both are likely to escape. If both escape a double escape peak will appear on the spectra with energy of 1.022MeV less than the full energy peak. On the other hand if one escapes a single escape peak occurs with energy of 0.511 MeV below the full energy peak (Knoll, 1989). Low energy incident gamma rays are less likely to be fully absorbed. The probability of escape photons in this case is going to be higher which basically explains the appearance of the escape peaks.

The most important aspect of gamma spectroscopy is the analysis of the pulse height spectra. According to Knoll, "the pulse amplitude distribution is a fundamental property of the detector output," which is useful in disseminating information about the radiation source or the instrument itself. Pulse amplitudes may be displayed in a differential or integral pulse height mode. However, differential pulse height distributions are more common but they both convey exactly the same information (Knoll, 1989). The distribution of the pulse height spectra or the area under the curve of one pulse height determines if the resolution is good or poor. Generally a wider area under the curve illustrates a poor resolution and a small or narrower area under the curve or peak will indicate a good resolution. To better understand pulse heights, the width of a normal (Gaussian) at half its maximum called the Full Width at Half Maximum (FWHM) needs to be determined. According to Tsoulfanidis (1995), the FWHM is "extremely important parameter in measurements of the energy

distribution of particles." The energy resolution can be determined by dividing FWHM, which is 2.35 standard deviations by the location of the peak centered at a point under the peak (Knoll, 1989). The full energy resolution of scintillation detectors used in gamma spectroscopy is in the range of 5-10 percent (Knoll, 1989) lower than the resolution of HPGe detectors by a factor of 30 or more.

It is practically impossible to make large HPGe detectors that are usually semiconductors (Tsoulfanidis, 1995). Germanium detectors are less efficient because they are usually small in size and the smaller the detector size the lower the efficiency. There is not going to be 100% efficiency of the HPGe detectors we are using in this experiment because we are dealing with gamma rays that are uncharged particles. Charged radiation such as alpha or beta particles will easily interact with the detector through ionization or excitation enabling the detector to see every particle as it enters its active volume (Knoll, 1989). In this case the detector will have 100% efficiency because they have a shorter distance to interact with the detector. Gamma rays with long distances between interactions will reduce that probability of interaction and efficiency of the detector. It is therefore important to calibrate the efficiency of the detector in order to relate the number of pulses counted to the number of particles entering the counter (Knoll 1989, Tsoulfanidis 1995).

The efficiency of the HPGe detectors has to be determined as a function of energy before any measurements are carried out. The efficiency could be calculated in terms of the ratio of the total number of detected photons in the full-energy peak and total number of photons emitted by the source. The source used in efficiency calibrations has to be a standard source from a national standards laboratory that has been calibrated to a precision ranging from 0.5 to 2% (Knoll 1989). Single isotope sources could be used for efficiency detection, however if the energy scale range is wide enough requires the use of multiple sources either sequentially or in combination (Knoll 1989). The same standard sources are used for energy calibration which is also required for the calibration of pulse height scale as a function of gamma-ray energy. This helps to properly identify various peaks in the spectrum. The gamma-ray energies of the source should be similar if not identical to the

energies of the measured unknown source (Knoll 1989). Some common isotopes used for energy and efficiency calibration are shown in figure 9 and 10 respectively.

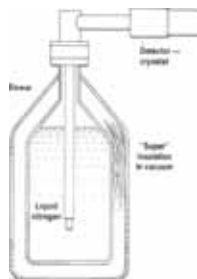


Figure 1 HPGE detector (Knoll, 1989)



Figure 2 Dust emission with a four wheeler (Goosens and Buck 2009a)

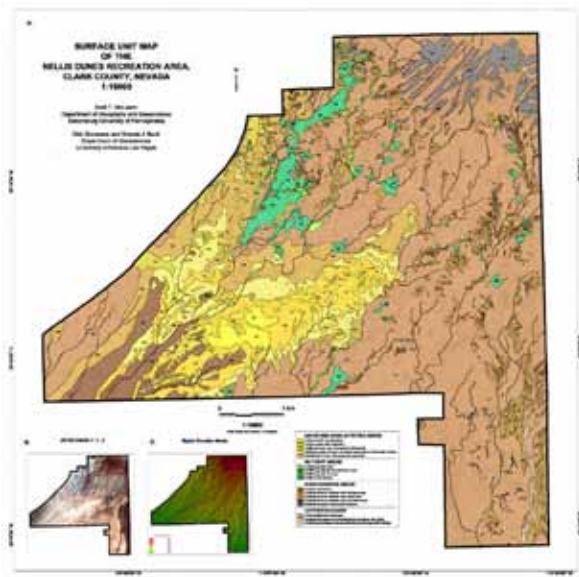


Figure 3 Surface unit map of NDRA where the dust samples were collected (McLaurin et al., 2009)

SUMMARY OF LITERATURE REVIEW

The measurement of soil or dust samples with germanium detectors will allow characterization of the gamma-emitting radionuclides in the sample. Since previous researches have shown that there are traces of radioisotopes in the soil samples at the NDRA area, there is a possibility that some of those same isotopes can be found in dust samples collected from the same site. If any of the radioisotopes found in the soil samples can also be found in this study, then the degree to which radionuclides are transferred from the soil to the dust can be inferred.

METHODOLOGY

A dust sample originating from an area of the NDRA corresponding to surface soil type 3.1 with an average particle size of 4.1 micrometers was obtained. A total of 1.2714g of the sample were weighed out, placed into a Petri dish and positioned on a HPGE well detector with a relative efficiency of 25 % for analysis. Prior to placing the sample on the detector, the sample was treated in such a way that it was as homogenous as possible. The sample was in powder form and no larger conglomerates of particles were visible. This was done carefully without having to lose much of the dust sample. The dust sample was then placed on the detector and counted for 72 hours. The sample was then transferred to a counting vial. A sample weight of 1.1773g was determined after the transfer, indicating that some material was lost during the process. The sample in the vial was placed inside the detector well and counted for 72 hours. The detector background was measured for another 72 hours to eliminate any errors resulting from background radiation interacting with the detector. A NIST traceable standard source was measured for 24 hours and used for the energy calibration of the detector. The energy calibration was conducted in accordance with ANSI standard N42. 14. 1999. The detector efficiency was not determined in this study because only the relative difference between the two measurement geometries was of interest.

RESULTS

The radionuclides Actinium-228 and Lead-212 were identified in the dust sample contained in the vial and Petri dish sample holders respectively. Thorium-231, Protactinium-231, Thorium-227, Lead-214, Bismuth-211, and Potassium-40, were identified in the dust samples in the Petri dish

Radionuclide	Sample Energy (Kev)	Radionuclide Energy (KeV)	Absolute Difference	Absolute Percent Error
Th-231	26.85	25.64	1.21	4.7%
Pa-231		27.4	0.55	2%
Th-227	234.48	236.0	1.52	0.7%
Pb-212		238.6	4.12	1.7%
Bi-211	348.44	351.1	2.66	0.8%
Pb-214		351.9	0.8	0.2%
K-40	1464.83	1460.8	4.03	0.3%

Table 1: Radionuclides found in dust sample measured in the Petri Dish geometry

Radionuclide	Sample Energy (KeV)	Radionuclide Energy (KeV)	Absolute Difference	Absolute Percent Error
Th-231	82.08	84.21	2.13	2.5%
U-235	181.63	185.72	4.09	2.2%
Ra-226		186.2	4.57	2.5%
U-235	204.83	205.31	0.48	0.23%
Ac-228		209.25	4.42	2.1%
Th-227	234.48	236.0	1.52	0.7%
Pb-212		238.6	4.12	1.7%
Pb-214	291.18	295.2	4.02	1.4%
Ac-228	334.73	338.32	3.59	1.1%
Pa-231		330.10	4.63	1.4%
Th-227		329.85	4.88	1.5%
Bi-211	348.27	351.1	2.83	0.81%
Pb-214		351.9	3.63	1.0%
K-40	1464.16	1460.8	3.36	0.23%

Table 2: Radionuclides found in dust sample measured in the Vial geometry

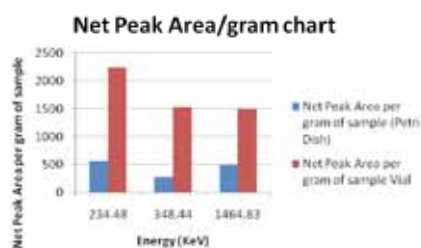


Figure 4: Comparative analysis of net peak areas per gram between Petri Dish and Vial geometry for gamma peaks with similar energies

sample holder whereas Radium-226 and Uranium-235 were found in the dust sample when measured in the vial geometry. Seven radionuclides were identified in both geometries with the exception of Uranium-235, Actinium-228 and Radium-226 that were found only in the vial geometry. Potassium-40, which is a primordial nuclide, was found using the Petri dish geometry.

CONCLUSIONS AND RECOMMENDATIONS

The study clearly showed that alpha-emitting radionuclides that might cause significant health hazards are present in the NDRA area that is used by the local community for recreational purposes. However, the fact that these nuclides are present in the sample cannot

be treated as simple cause for alarm since the actual activity of the radionuclides present in the samples has not been determined yet. There might be insignificant amounts of radioactivity in the samples that may cause no harm at all. The most important finding from this study is that the net peak area per gram of sample when measured in the vial geometry is much greater than when measured in the Petri dish geometry. This indicates that the efficiency for the vial geometry is much greater than for the Petri dish, therefore a better way to measure dust samples. This can be explained by the fact that the vial is completely surrounded by the detector when it is placed inside the well. Consequently there is a higher chance that particles emitted from the sample will enter the detector and be counted.

Almost all of the radionuclides found in the sample are naturally occurring, meaning they are found naturally in the ground with no or little input from humans. Therefore some of these are expected to be found in most soil types common in desert regions. More research is needed to determine the activity concentrations of the radionuclides found. This will help determine if any health hazards are associated with exposure to the radionuclides. Since using the vial geometry resulted in a better counting efficiency and therefore a higher degree of accuracy in the measurement, future studies should use this geometry to achieve better analysis results.

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COMMUNICATION MEDIA'S EFFECTS ON GROUP COHESIVENESS IN ORGANIZATIONAL WORK GROUPS

BY SARAH HARRISON



ABSTRACT

Despite the widespread use of various communication media, there still remain unanswered questions on how they relate to group cohesiveness. This study explores how communication media usage influences group cohesiveness in an organizational work group. The media addressed in this study included face-to-face (FTF), email, phone conversations, instant messaging, text messaging, and handwritten notes. A sample of 38 respondents composed of both group members and supervisors who frequently work on group projects were interviewed. Thirty-five of these professionals then completed a survey. The data from the interviews indicate that FTF communication is still the preferred method for building group cohesiveness. However, survey results show that when supervisors communicated with group members using FTF for communication involving decision making, groups were more likely to experience issues with cohesiveness. Both interview and survey results indicate that text messaging, instant messaging, and handwritten notes have notable benefits for supervisors in terms of group cohesiveness.

INTRODUCTION

Group cohesiveness is a term that is used to describe group members' attraction to their group. There are several components of group cohesiveness, including interpersonal attraction, task com-

mitment, and group pride (Beal, Cohen, Burke, McLendon, 2003). Strong group cohesiveness is especially important in organizational settings because it helps to ensure that groups are able to successfully accomplish their goals. It is important to investigate how communication media choices affect group cohesiveness considering that professionals now have a wide variety of communication methods available to them. Face-to-face (FTF) communication and computer-mediated communication (CMC) are the two major classifications of communication media, and they are both found to have benefits and drawbacks in regards to group cohesiveness.

This research will employ an exploratory approach towards examining how communication media choices affect an organizational work group's cohesiveness. For the purposes of this research, an organizational work group will be defined as three or more people who perceive themselves as working together on a specific project within their organization. Since this research provides both a qualitative (interview) and quantitative (survey) analysis from the same sample, it serves to provide readers with a broader approach to comprehending communication media's effects on group cohesiveness.

The sample in this study is composed of primarily city government employees as well as professionals employed at other private and government

organizations. The communication media this research will address include face-to-face (in person) communication, email, phone, video conferencing, text messaging, and handwritten notes.

The hypotheses are as follows:

H₁: Groups that utilize FTF communication frequently will score high on measures of group cohesiveness.

H₂: New forms of media, such as text messaging and instant messaging, will enable groups to have higher group cohesiveness.

LITERATURE REVIEW

Group cohesiveness is often defined as an individual group member's attraction to their group. Aspects of group cohesiveness include trust, comfort communicating, and the desire to collaborate with the group in the future, among other factors (Beal, Cohen, Burke, McLendon, 2003). Harrison, Mohammed, McGrath, Florey, and Vanderstoep (2003) noted the importance of group cohesiveness and found that continuing teams performed much quicker and created higher quality products than groups with unfamiliar members. Additionally, Narayanan and Nath (1984) found that highly cohesive work groups displayed more positive relationships among coworkers and superior-subordinate relationships as well as improved flexibility and productivity. Groups with high cohesiveness have also been found to have better decision quality (Timmerman and Barger, 2004).

Considering the importance of group cohesiveness, it is beneficial to consider how it relates to communication media choices. Burgoon, Bonito, Bengtsson, and Ramirez Jr. (2000) found that FTF communication fostered more receptivity among members than CMC communication, which enabled the group members to have more beneficial long term interactions. Hambley, O'Niell, and Kline (2007) contended that FTF groups have higher mean team cohesiveness scores than videoconference and chat teams, but that FTF teams did not have *significantly* higher mean team cohesiveness scores compared to videoconference teams.

Bordia (1997) highlighted research by Kiesler, Seigel, and McGuire which found that the absence

of social cues present in CMC not only can hinder communication efficiency, but can also lead to an increased incidence of impolite and uninhibited behavior. Another noteworthy concern about CMC found by Weisband and highlighted by Bordia (1997) is that since CMC groups take longer to communicate, they improvise by spending more time on task-oriented talk and less time on social-emotional conversation. Furthermore, Sproull and Kiesler (1986) found that people preferred to use email to deliver bad news and they were more likely to send an offensive or angry message in an electronic message. They also found that people were more likely to use email for communication that did not relate to work.

Yoo and Alavi (2001) found that in established groups, group cohesiveness had a larger influence than communication media for measures of task participation. Furthermore, they found that group cohesiveness influenced how group members perceived communication media in established groups. Furthermore, Yoo and Alavi (2001) posited that group cohesiveness can sometimes help to improve the richness of lean media. The authors cited several studies, including research by Olsen, Stephenson et al., and Phillips and Santoro, that found that lean media can aid users in avoiding irrelevant topics and focusing more on the task at hand. Additionally, Walther (1995) found that CMC may enable beneficial social interactions in ways that previous research has not addressed and that CMC may in some ways be better than traditional media.

Burke, Aytes, and Chidambaram (2001) analyzed two different studies of groups that utilized electronic meeting systems and found that even the leanest media permits growth in cohesiveness and process satisfaction. Consequently, they argued that there are not substantial differences in media in regards to their ability to facilitate cohesiveness or process satisfaction over time. Weisband and Atwater (1999) found that there is a significant correlation between frequency of a group member's task-related messages in CMC groups and the contributor's likeability among group members; however this relationship did not exist in FTF groups. Additionally, the authors found that group members liked each other more in FTF groups.

Timmerman and Barger (2004) examined whether choice of communication media influenced group members' satisfaction with the group's processes by studying students participating in group projects. They discovered that students were more satisfied with interpersonal processes when they utilized FTF communication. However, students' satisfaction with action processes, such as coordination activities and monitoring progress, was associated with increased email utilization.

METHODOLOGY

Participants

Surveys and interviews were conducted between July 2009-April 2010. The interview sample included 17 professionals who worked for the City of Henderson, 14 who worked for the City of Las Vegas, and 7 who worked for various government and private industries, ranging from marketing to architecture (the exact companies will not be named to ensure privacy). Respondents were selected based on how well they met the requirements of the study, most notably, the type of organizational setting in which they work and their previous experience with group projects. The researcher was able to locate suitable respondents by contacting an individual at the City of Henderson and receiving further recommendations from respondents that were interviewed.

The professionals in the sample had all recently finished a group project, and they had all worked on several group projects recently in their careers. Additionally, they had all worked on internal group projects with other professionals from their organization. The survey and interview questions focused on group communication that occurred with group members who worked for the same organization as the respondents (internal communication).

Procedure

The author interviewed professionals individually at their workplace after explaining the research procedures and obtaining signed informed consent forms for both the interview and its audiotaping. The interviews were audiotaped to ensure the accuracy of later analysis. The interviews ranged in length from 8 minutes to 55 minutes; the average interview was 19.8 minutes in length.

The link to the survey was emailed to the respondents after they consented to the research and completed an interview. A total of 35 of the 38 respondents completed the survey, providing a response rate of 92%. The survey measured responses to questions about the respondents' most recent group project or a portion of a project that was completed. Respondents were asked to measure their communication media usage and their perception of measures of group cohesiveness on five point Likert scales, ranging from "Very frequently" to "Never." Communication usage questions were divided into two groups: communication media used for overall communication and communication media used for making decisions.

Two distinct surveys were given out to respondents based on what position they had for recent group projects. Fifteen of the sample interview respondents were considered to be at a lower employment level than the other respondents who were primarily managers and project supervisors. In order to be considered a "supervisor" for interview and survey purposes, the individual must have served primarily as a supervisor in their recent group projects. Additionally, the respondents must have also verbalized their comfort to the researcher about being considered a supervisor for the purposes of this study.

RESULTS

The following results were analyzed by assessing the correlations between various variables and considering the Spearman coefficient. Since this is exploratory research, all correlations that were stronger than .3 were considered noteworthy. Although the data is presented in its entirety in the following tables, it was not considered to be part of the important findings unless a minimum of five respondents (on either the supervisor or group member survey) reported using the media. The media types that were excluded based on this requirement include video conferencing and social networking.

Questions on the supervisor survey measured communication frequency between the respondent and the individuals they supervised. However, questions on the group member survey measured communication frequency between both the respondent and other group members as well as

between the respondent and their supervisor.

Correlations

Note that positive correlations indicate that a media is helpful for achieving a specific result since the data is measured on a Likert scale, e.g. if there is a positive correlation, an increase in the frequency of email will result in an increase of desire for future collaboration. However, this is not the case for two measures in this study: minor disagreements and major disagreements. These variables were also measured on a Likert scale, but high values of these variables represent a high amount of conflict. Therefore, if there is a positive relationship between a particular medium and minor or major disagreements, this means that a high frequency of that particular medium will result in an increase in conflict.

Also, please note the following abbreviations that will be used in the correlation tables.

Abbreviation	Meaning
I.M.	Instant messaging
V.C.	Video conferencing
Comfort	Respondent's comfort communication with group members
Support	Respondent's perceived group member support
FutWork	Respondent's desire for future collaboration with group members

SUPERVISOR RESPONSES

Demographic Information

Supervisors' ages ranged from 30-55 ($M_{age}=42.2$). There was an almost equal gender distribution between supervisors in this study with nine female and eleven males. Fifty percent of respondents reported that their highest education achievement was a bachelor's degree, while 35% of respondents reported earning a graduate degree. Seventy percent of respondents reported that the group project under consideration for this study was over five months in length. The majority of respondents (75%) reported that there were seven or more people (including themselves) in the group project under consideration for this study. Most respondents (65%) had worked with some members of

the group prior to the group project under consideration.

Media		Group Cohesiveness		
		Comfort	Support	FutWork
Overall Communication	Email	0.26	.53*	.48*
	FTF	0.10	-0.14	-0.21
	I.M.	0.31	.69**	0.44
	Notes	-0.09	0.33	0.09
	Phone	0.02	0.29	0.37
	Texts	0.18	0.39	0.20
Communication Involving Decision Making	V.C.	-0.24	0.06	-0.24
	Email	0.21	0.13	0.24
	FTF	-0.25	-.52*	-0.17
	I.M.	-0.08	0.29	0.13
	Notes	0.28	0.02	-0.14
	Phone	-0.07	0.23	0.17
	Texts	0.32	.53*	0.24
	V.C.	-0.29	0.20	-0.05

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 1: Supervisors' Correlations between Measures of Group Cohesiveness & Frequency of Communication Media Usage

According to the survey results for supervisors, the only media that was found to be detrimental in terms of group cohesiveness was FTF used for decision making. Interestingly, when supervisors frequently used FTF for communication involving decision making with their group mem-

bers, they were more likely to have lower perceived group member support. Supervisors were likely to experience an increased desire for future collaboration when they communicated via phone, IM, or email with the employees they are supervising on a group project. It was also found that frequently using text messaging, handwritten notes, instant messaging, and email for communication led to higher levels of perceived group member support.

Implications: Based on this analysis, it appears that the more forms of communication media a supervisor utilizes to communicate with the employees they are supervising, the more likely they are to experience high levels of group cohesiveness. However, considering that frequently utilizing FTF for communication involving decision making between supervisors and group members is

appearing to be associated with lower levels of group cohesiveness, it is likely that groups may be experiencing some challenges in regards to decision making during meetings.

GROUP MEMBER RESPONSES

Demographic Information

Group members' ages ranged from 27-61 ($M_{age}=40.6$). There were five female group members and ten male group members. Forty percent of respondents reported that their highest education achievement was a bachelor's degree, while approximately 53% of respondents reported earning a graduate degree. Approximately 87% of respondents reported that the group project under consideration for this study was over five months in length. The majority of respondents (approximately 87%) reported that there were seven or more people (including themselves) in the group project under consideration for this study. Most respondents (approximately 67%) had worked with some members of the group prior to the group project under consideration.

decision making exhibit lower measures of group cohesiveness. Interestingly, group members that communicated frequently via phone with other group members reported lower comfort communicating with their group. Overall, FTF communication appears to be beneficial for group cohesiveness when group members are communicating amongst themselves frequently. However, it appears that FTF communication involving decision making between group members and supervisors leads to less perceived group member support and a decreased desire for future work. This is a significant finding considering that the supervisors' results also indicated that utilizing FTF for decision making with group members was detrimental for perceived group member support.

IMPLICATIONS: Group members achieve higher group cohesiveness if they communicate with their supervisor via phone and with their group members with notes and FTF.

Media		Communication w/ Group Members			Communication w/ Supervisors		
		Support	FutWork	Comfort	Support	FutWork	Comfort
Overall Communication	Email	0.00	-0.20	0.02	0.23	0.00	0.00
	FTF	0.34	0.13	0.09	-0.03	-0.39	0.15
	I.M.	-0.26	0.23	-0.20	-0.16	0.03	0.21
	Notes	.58*	0.09*	.58*	0.24	-0.20	0.30
	Phone	0.13	-0.11	-0.31	0.32	0.38	0.42
	Texts	0.08	0.48	0.10	-0.16	-0.01	0.24
	V.C.	0.14	0.22	0.17	-0.10	0.42	-0.10
Communication Involving Decision Making	Email	-0.06	-0.07	-0.08	-0.17	-0.29	0.08
	FTF	0.48	0.12	0.28	-0.38	-0.50	-0.14
	I.M.	-0.17	0.33	-0.14	-0.10	0.42	-0.10
	Notes	0.29	0.10	-0.02	-0.16	-0.24	0.21
	Phone	-0.06	-0.28	-0.37	-0.11	-0.16	0.29
	Texts	0.08	0.48	0.10	-0.10	0.42	-0.10
	V.C.	0.12	0.23	-0.17	-0.10	0.42	-0.10

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Figure 2: Group Members' Correlations between Measures of Group Cohesiveness & Frequency of Communication Media Usage

Group members that communicated with their supervisors via phone had high values of group cohesiveness, while those that communicated with their supervisor FTF for communication involving

RESULTS

Supervisor Responses

The majority of supervisors that were interviewed expressed that they preferred FTF interaction in order to build group cohesiveness. One respondent mentioned "I love people. I love to be in meetings. I like to know who I'm dealing with and working with so it's amazing the number of people that you

just don't have that opportunity to meet or get to know because you can do an entire project on an email and never have to meet anybody [that you're working with]." Another supervisor maintained that FTF fosters relationships that help to promote a team environment and that over-relying on email can cause a group to fall apart or make the team become "cold or stagnant."

When asked whether CMC hindered group cohesiveness, respondents were divided between those that thought that CMC did not hinder their group cohesiveness and those that acknowledged the difficulties that email created for their inner group relationships. One supervisor mentioned, "I miss the face-to-face meetings; I think you lose a lot of interaction. Email has gotten to such a comfort level that you kind of get removed from the group where you just become another voice, and I think you do need to have that presence there." Several respondents recognized that CMC hindered their ability to get to know their group members on a personal level and to foster an atmosphere of trust.

Contrastingly, a minority of supervisors that were interviewed argued that CMC did not hinder their ability to build group cohesiveness and that they did not experience a decrease in group cohesiveness in teams where CMC was used more frequently. Some of these respondents highlighted the difficulties of FTF meetings, specifically the time it takes to travel to a meeting. For example, one respondent mentioned that they prefer to use conference calls or video-conferencing as opposed to a FTF meeting because it enables them to multi-task if it is not their turn to speak. Another respondent reported that "I do find that electronic communication is less time-consuming. You don't have to drive somewhere, wait for people to show up, get the meeting started, and then people like to chit chat during the meeting." However, another respondent emphasized that this convenience can also hinder progress since often times people will work when they're listening to a teleconference meeting so they will not be thoughtfully focusing on the proceedings.

Some respondents also suggest that CMC can still enable them to build positive relationships with group members. One respondent recognized that

"Email allows the interaction that you do face-to-face physically at a meeting to continue day to day, even though you're not seeing the person," while another respondent argued that email did not hinder their workplace relationships and that one can still interject wit and friendliness into an email in order to make it feel more personal. Some supervisors also highlighted that positive initial meetings can help to build strong bonds that enable them to feel comfortable communicating through email and phone conversations. Additionally, some respondents felt that initial positive FTF interactions enabled them to feel that they were better understood by group members.

While most face-to-face interactions occurred during formal meetings, some supervisors mentioned that they enjoyed being able to walk around their office and talk to coworkers and group members. One respondent remarked, "I have learned more from running into someone in a hall and chatting for 15 minutes than I would learn in any meeting, any phone call, any email..." Another supervisor reported that if an employee has an issue with a coworker, it is easier to hide behind electronic communication instead of confronting the issue. Consequently, this supervisor mentioned that he prefers to walk around his department to talk to employees in person.

Group Member Responses

An overwhelming majority of group members reported that they preferred using face-to-face meetings to build group cohesiveness, and they were much more likely than supervisors to believe that CMC had little negative effect on their group cohesiveness. Approximately half of the group members interviewed felt that CMC has either enhanced or has had no effect on their group cohesiveness. Group members that suggest that CMC has enhanced their group cohesiveness note that CMC enables them to stay in touch with group members despite their busy schedules and differing locations. Also, some respondents noted that CMC had little effect on building group cohesiveness because they still went out of their way to get to know their group members. One group member emphasized, "I'm a people person. It doesn't make a difference to me whether I talk to someone face-to-face first or through email."

Several respondents noted drawbacks of CMC in regards to building group cohesiveness. One group member mentioned "I don't think it [CMC] helps the relationships always. I think sometimes it can make things quick, but it can also be a passive-aggressive way to communicate. People will say things in an email that they wouldn't say to your face." Another respondent recognized that it is important to communicate with group members during meetings because it enables you to get beyond one's professional role and actually get to know their group members as individuals, which is not possible during a phone conversation or email exchange.

Another group member noted that it is crucial to first understand the media preferences of the person you are communicating with, noting "I think it depends on who you're communicating with since some people in the organization love technology and others despise it." Overall, group members were widely divided on their perceptions of how CMC affected group cohesiveness.

DISCUSSION

A major finding in this study is that the survey results for both supervisors and group members indicate that using FTF communication for decision making between a supervisor and group member leads to detrimental effects on group cohesiveness. During the interviews, several respondents explained that it is very difficult to find the time for meetings. Supervisors reported being especially busy, often lacking the time to meet FTF with group members for decision making. Perhaps professionals are beginning to resent the time spent in meetings and this could be hindering their ability to effectively build group cohesiveness. It is recommended that supervisors attempt to better facilitate meetings so that group members feel comfortable sharing ideas and resolving issues, rather than feeling as though they are in a rush to get back to work. Organizations can also promote this change by emphasizing that FTF meetings are very important, despite the busy schedules and various responsibilities of their employees.

Another important finding in this study is the benefits of text messaging, handwritten notes, and instant messaging. Although these media types

were only utilized by a minority of respondents, they were found to be beneficial for several measures of group cohesiveness. It is recommended that supervisors determine if these media could be beneficial for their group projects based on the individual member's preferences and their ability to utilize the media.

CONCLUSION

Most respondents agreed during the interview section that face-to-face was the best communication medium for building group cohesiveness. However, the survey results indicated that face-to-face communication between a supervisor and group member appears to have a negative effect on some measures of group cohesiveness. This research supports the hypothesis that newer media, such as text messaging and instant messaging, may prove to be effective tools for building group cohesiveness in organization work groups. It is recommended that future research investigate the efficacy of communication media both quantitatively and qualitatively to get a more accurate portrayal of respondents' usage. Additionally, further research should assess the effectiveness of text messaging and instant messaging for communication in organizational work groups.

In order to help improve organizational group communication, it is recommended that professionals not only choose the media that they feel comfortable using, but also media that satisfy their group members. Furthermore, it is crucial that professionals understand the various benefits of the communication media they use on project performance as well the drawbacks the media presents to group cohesiveness.

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EFFICACY OF DANCE INTERVENTION IN AN ELDERLY POPULATION ALONG WITH A CLINICAL BALANCE ASSESSMENT TOOLS OVERVIEW: A SYSTEMATIC REVIEW

BY CRISTINA MACKE

INTRODUCTION

The elderly community continues to be the fastest growing sector of our population. Subsequently, senior citizens will continue to comprise a significantly larger percentage of the population in comparison with the last century (Hamburg et al., Effects of Laban-Based Movement Program; U.S. Census Bureau). As such, the question becomes, what can individuals in the health care field do to assist caregivers who manage the increasing health care demands of the elderly population? (Hamburg et al., Effects of Laban-Based Movement Program; Hui et al.; Krampe et al., 2010).

Physical therapy, a health care profession focused on prevention and rehabilitation, works closely with senior citizens regarding their health concerns. One of the major health concerns prevalent in this field is balance as it relates to increased fall risk in elderly. Balance is comprised of several sensory input components acting in unison including vision, vestibular, and proprioception or somatosensory. These sensory inputs provide information about balance control and assist in its maintenance thus decreasing the risk of falling (Yim-Chiplis et al., 2010).

Throughout life people strive to maintain their independence and prevent disability by keeping physically fit and active. However, as a person

ages, balance decreases to the point that it affects daily activity, which may result in an increased number of falls in the elderly (Federici et al.; Hornbrook et al.; Hamburg et al., Effects of Laban-Based Movement Program; Sofianidis et al., 2010). In fact, one in three persons aged 65 years and older falls each year (Krampe et al., 2010). Furthermore, the American Academy of Family Physicians (2010) recognizes that falling has become the leading cause of injury-related visits to emergency departments in addition to being the primary cause of accidental deaths in people over the age of 65 in the United States (American Academy of Family Physicians). Consequently, an increase in morbidity and mortality rates due to fall related incidences (Hamburg et al. Effects of Movement with Music Program; Krampe et al.; Tinetti) augments the burden put on our economic and health care system (Hamburg et al. Effects of Movement with Music Program; Krampe et al., 2010).

In 2000, the Center for Disease Control and Prevention estimated that people age 65 and older who experienced a fall and received medical care within that year, totaled \$200 million in fatal and \$19 billion in nonfatal medical costs (Centers for Disease Control and Prevention, 2010). It should also be noted that without effective intervention, this number will continue to rise and is expected



to reach \$54.9 billion by 2020 (Stevens et al., 2010). An equally important notion is that the probability of an older person falling can be predetermined and therefore utilized to reduce the risk and severity of fall related injuries (Rawsky, 2010). It seems pertinent then that professionals in the physical therapy field seek effective means, such as exercise, to prevent balance problems in our elderly population in order to assist in the management of geriatric health care.

Dance is an exercise that researchers have been studying in an effort to determine whether it produces balance enhancing results or not. Studies have shown that because dance requires movement that strays from one's center of gravity, it has a positive impact on the multiple factors that contribute to stability maintenance (Federici et al.; Krampe et al, 2010.). However, in spite of supporting evidence, some clinicians may question the ability of a dance regimen to improve proprioception, which is a critical component of balance. It is important to review current studies regarding this topic to determine the validity of clinical trial results. Thus making certain that physical therapist's are integrating effective evidence-based medicine is imperative, especially given the ubiquitous use of clinical assessment tools. Therefore, the purpose of this review is to perform a systematic assessment of dance intervention and its impact on balance disturbances in specific elderly populations. This analysis will also review which balance assessment instruments have been utilized in evidence-based research. This may provide physical therapy facilities with recommendations as to which clinical tools may be most suitable in practice.

METHODOLOGY

Two reviewers independently carried out the literature search. An initial search for a primary systematic review identical to the current proposed topic produced zero results. A total of 12 databases were searched including the following: Academic Search Premier, AgeLine, AltHealth Watch, BioMed Central, CINAHL, Cochrane Library, Medline via Web of Knowledge, PeDro, PubMed, Scopus, SPORT Discus, and Wiley Interscience Journals. The terms used in the search were "dance", "dance therapy", "dance AND balance", and "dance therapy AND balance." Additional studies were retrieved through references cited in analogous studies. Articles in any

foreign language were excluded. Final results from the two reviewers were combined (Table 1).

Selection

In order for an article to be included in this review it had to meet all the inclusion criteria. Studies were included if (1) they were peer reviewed, (2) they were performed within the past 10 years, (3) they were not a systematic or literature review, (4) their intervention was dance, (5) their experiment measured stability via clinical balance assessment tools (6) their study included both male and female subjects and (7) test subjects were healthy elderly adults.

The study designs included randomized control trials and case series. Elderly individuals were included (for specific age range see Table 2). The methodological quality of articles was not assessed other than indicating the Level of Evidence. This review followed the template developed by the American Academy for Cerebral Palsy and Development Medicine (AACPDM) based on its thorough design and critical analysis features.

DISCUSSION

Is dance an effective method for enhancing balance in an elderly population?

All 4 studies summarized in Table 3 utilize balance tools that determine different aspects of stability including balance in a general sense, static balance, dynamic balance, a combination of both static and dynamic, and balance as it relates to mobility. Specific assessment tools including the Timed "Up and Go", Romberg and Improved Romberg Tests were found to be beneficial (Federici et al.; Hui et al.; Sofianidis et al.; Holmerova et al., 2010). Holmerova et al. and Hui et al. (2010) both used Timed "Up and Go" to assess dynamic balance and determined its results were statistically significant enough to prove that dance intervention increases balance in an elderly population. A similar test, the Sit-Up-and-Go, was used in another study and produced positive results as well (Federici et al., 2010). Federici et al. (2010) used the Romberg and Improved Romberg Test to assess general balance and found that these tests showed a statistical significance in increasing balance in the elderly. In accordance with these positive findings, Sofianidis et al. (2010) used Dynamic Weight Shifting Tasks and the One-Legged Stance Test and found a positive correlation between dance and balance. Overall, these studies

provide statistical information that suggests dance enhances balance in elderly individuals given the same intervention design.

Conversely, assessments such as the Tinetti Test (Federici et al., 2010) and Sharpened Romberg Test (Sofianidis et al., 2010) produced results that did not show any improvement in balance after dance intervention. These unfavorable outcomes may be due to extraneous variables or other factors within the research design. The Tinetti Test measures balance while the patient is sitting in a chair, which contrasts with the Timed "Up and Go" and Romberg Tests where patients are walking and standing. This variation in testing procedures might indicate why dance produced positive results for standing and walking tests but not for the sitting Tinetti Test. Even though Tinetti results are negative, statistical results indicate dance still shows improvements in standing and walking balance in the elderly. In contrast with the Improved Romberg Test (Federici et al., 2010) which measures the amount of time a person maintains balance, the Sharpened Romberg Test (Sofianidis et al., 2010) measures displacement on a dual force platform. Again, the difference in measurement procedures could reveal why the Improved Romberg Test showed positive results while the Sharpened Romberg Test did not. Overall, statistical results indicate that the clinical Romberg and Improved Romberg Tests support the idea that dance intervention enhances stability.

Although tests with low Levels of Evidence are not discussed in this review, it is still important to recognize their findings and consider their statistical evidence when choosing a dance intervention to improve balance. See Table 4.

Which balance tools are best suited for the Physical Therapy facility?

Interestingly, when looking at the data as a whole, it seems that the clinical assessment tools that are more easily administered (Timed "Up and Go", Romberg, Improved Romberg, Sit-Up-and-Go, Dynamic Weight Shifting Tasks, One-Legged Stance Test) show improvements in balance more often than assessment tools that are more technically advanced (Tinetti Test, dual force platform). This is not to say that one assessment tool is better than the other, although Franchignoni et al. noted the Tinetti, Romberg, Improved Romberg, and Sit-Up-and-Go Tests are well-known as reliable and valid

methods of balance measurement. However, keeping in mind that clinicians strive to maintain an objective standpoint so as to not cloud judgment with bias, it is important to take into account which balance measure is best suited for the patients' needs as well as which method is practical and economically in the best interest of the rehabilitation facility.

In terms of the patients' needs, all of the aforementioned tests showed significance and therefore produce results with high sensitivity and specificity (Federici et al.; Hui et al.; Sofianidis et al.; Holmerova et al.). Knowing this, the patient can be certain that these tests are producing results that accurately reflect their current state of stability. Keep in mind though, it is difficult to determine exactly how accurate these assessments are since they have not been compared to the NeuroComm Balance Master System, which utilizes Computerized Dynamic Posturography, which is the gold standard when it comes to balance measurement. Nevertheless, this review supports the validity and reliability of the balance tools previously mentioned based on their respective studies' degree of Level of Evidence and Conduct Rating.

In terms of the physical therapy facility needs, physical therapists strive to maintain a balance between accurate and reliable tests and tests that are economically feasible. Although studies involving dual force platforms have shown significant findings, they can be overly technical for a technician (which could require additional training and possibly educational workshops) and economically draining to obtain or even maintain, along with being time-consuming. In addition to this, it is important to recognize that although Sofianidis et al. reported significance utilizing computerized posturography, Federici et al. also reported significance when using clinical assessment tools that are less costly and more easily adaptable to any physical therapy clinic. In essence, the choice to use a specific balance measurement tool is left for physical therapists to decide, however this review is intended to guide a physical therapist's decision to assist in the proper utilization of such tools.

Due to the high Level of Evidence and quality of Conduct Rating within these 5 specific studies (Table 2), physical therapists may wish to pay particular attention to the Timed "Up and Go", Romberg,

Improved Romberg, Sharpened Romberg, Dynamic Weight Shifting Tasks, One-Legged Stance, Tinetti, and dual force platform balance tests when searching for accurate means to determine balance in older individuals. Furthermore, because these balance determining methods have been used in conjunction with randomized control trials, they should be regarded as valid and reliable tools that accurately assess balance in elderly individuals treated in a similar fashion to the research designs summarized in this review.

Although tests with low Levels of Evidence are not discussed in this review, it is still important to recognize their findings and consider their statistical significance when choosing a balance assessment tool for clinical work. See Table 4.

LIMITATIONS

This review compiles balance evidence presented in studies that meet specific inclusion criteria. The clinical results obtained from these studies are analyzed based on available evidence. However, it is important to recognize limitations that affect the conclusions determined in this review. Suggestions for future systematic reviews include: using multiple search terms when locating articles (i.e. elderly, aged, senior, etc.), extending the inclusion date greater than ten years, and revising purpose statements to include elderly individuals with disorders. Doing so, may provide more evidence to support conclusions already present in current trials.

CONCLUSION

This systematic review consolidates the most up-to-date statistical information on dance intervention and its effects on balance. Due to the small number of studies available, the absence of large scale randomized trials, and the low Level of Evidence of the remaining studies made our review of the effectiveness of dance intervention limited. More high quality studies with double-blind, randomized control trials and large participant numbers that measure balance after a dance intervention are needed to determine the benefit and efficacy that would support the continued use of dance for enhancement of balance in elderly individuals.

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TABLE 1: LITERATURE SEARCH

Database Searched	Search Author (A) Hits				# A Articles Identified	Search Verify (V)		
# V Articles Identified Hits								
DTB	D	DT	DB	DTB		D	DT	DB
Academic Search 2 Premier	75,403	204	474	1	1	75,313	203	477
AgeLine 6	267	55	28	6		267	55	28
AlthHealth Watch 0	335	23	1	0		335	23	8
BioMed Central 33	279	90	65	32		280	91	67
CINAHL 11	1,013 1	136	58	10	2	1,014	136	58
Conchrane Library 6	151 1	42	16	1	2	151	42	16
Medline via Web 63 of Knowledge	1,686	344	156	47		1,693	466	222
PeDro 1	40 1	9	10	1	1	40	9	10
PubMed 25	2,219 5	404	83	25	2	2,241	408	86
Scopus 33	8,186	754	160	33		8,256	787	161
SPORT Discus 2	17,319	128	167	2		17,338	128	167
Wiley Interscience 4,509 Journal	76,120	11,291	20,890	4,509		76,120	11,291	20,890
Legend: D – dance DT – dance therapy DB – dance and balance DTB – dance therapy and balance								

TABLE 2: OVERVIEW OF STUDIES

Study	Treatment Group Intervention	Level of Evidence/Control Group Research Design/ Intervention Conduct Rating	Participants (Age and Inclusion Criteria)	Total (n)
2005 Federici et al.	Caribbean dance; 60min/session, 2x/week, 12weeks	II/ Cohort study with no physical activity concurrent control group, n < 100/ (5/7)	age 58-68; no cardiorespiratory medical condition, no regular exercise	40
2003 Hamburg et al.	Motivating Moves: Movement with Promote Health of Older 60min/ 1x/week, minimum 5/7	IV/ Case series no description without concurrent control group/ (N/A)	age 63-86; enrolled in Motivating Moves Program, involved in minimum 5/7 classes	20
2003 Hamburg et al.	Motivating Moves: Movement with Promote Health of Older 60min/ 1x/week, minimum 10/14	IV/ Case series no description without concurrent control group/ (N/A)	age 65-78; healthy, enrolled in Motivating Moves Program	14
2010 Holmerova et al.	Dance for continue regular (EXDASE); Residential Care Facility 75min/session, 1x/	II/ Cohort study with concurrent control group, n < 100/ activities	age 81 +/- 8.6; maintain permanent residency in	52

Music to the Adults; session, sessions

Music to the Adults; session, sessions

Exercise Seniors

TABLE 3: CONDUCT RATING SUMMARY

Study Question	Level of Evidence	Quality of Study	1	2	3	4
5	6	7				
Federici et al. yes	II no	Moderate (5/7)	yes	yes	yes	no
Holmerova et al. yes	II yes	Strong (7/7)	yes	yes	yes	yes
Hui et al. no	II yes	Strong (6/7)	yes	yes	yes	yes
Sofianidis et al. yes	II no	Moderate (4/7)	yes	no	yes	no

CONDUCT QUESTIONS

1. Were inclusion and exclusion criteria of the study population well described and followed?
2. Was the intervention well described and was there adherence to the intervention assignment? (for 2-group designs, was the control exposure also well described?) Both parts of the question need to be met to score "yes".
3. Were the measures used clearly described, valid and reliable for measuring the outcomes of interest?
4. Was the outcome assessor unaware of the intervention status of the participants (i.e., were the assessors masked)?
5. Did the authors conduct and report appropriate statistical evaluation including power calculations? Both parts of the question need to be met to score "yes".
6. Were dropout/loss to follow-up reported and less than 20%? For 2-group designs, was dropout balanced?
7. Considering the potential within the study design, were appropriate methods for controlling confounding variable and limiting potential biases use

TABLE 4: SUMMARY OF RESULTS

Study	Intervention	Balance Assessment	Statistical Result
Summary Result	Overall Quality	Tool	
2005 Federici et al. Moderate	Caribbean Dance	Improved Romberg Romberg Sit-Up-and-Go Tinetti	p = < 0.001 SS p = < 0.001 SS p = < 0.001 NS
2003 Hamburg et al. N/A	Motivating Moves: Music with Movement to Promote the Health of Older Adults	One-Foot Stance Standing Heel Raise Standing Toe Raise Timed "Up and Go"	p = 0.358 SS p = 0.000 SS p = 0.015 SS
2003 Hamburg et al. N/A	Motivating Moves: Music with Movement to Promote the Health of Older Adults	Functional Reach One-Foot Stance	p = 0.08 NS p = 0.001 SS
2010 Holmerova et al. Strong	Exercise Dance for Seniors	Timed "Up and Go"	p = 0.014 SS
2008 Hui et al. Strong	Low Impact Aerobic Dance	4-Test Balance Scale Timed "Up and Go"	not reported NS p = 0.01 SS
2010 Krampe et al. improvement; + trend	Lebed Method for Dance N/A	Functional Reach Timed Get Up and Go	not reported not reported
2008 McKinley et al. N/A	Argentine Tango	Activities-Specific Balance Scale Sit-To-Stand Score of	p = 0.0105 SS p = < 0.0001 SS
2009 Sofianidis et al. Moderate	Greek Dance	Established Populations for Epidemiologic Studies for the Elderly Dynamic Weight Shifting Task (sagittal and frontal planes only) One-Legged Stance Sharpened Romberg	p = < 0.05 SS p = < 0.05 deviation from mean given in article SS NS

Legend: SS- statistically significant, NS- not statistically significant

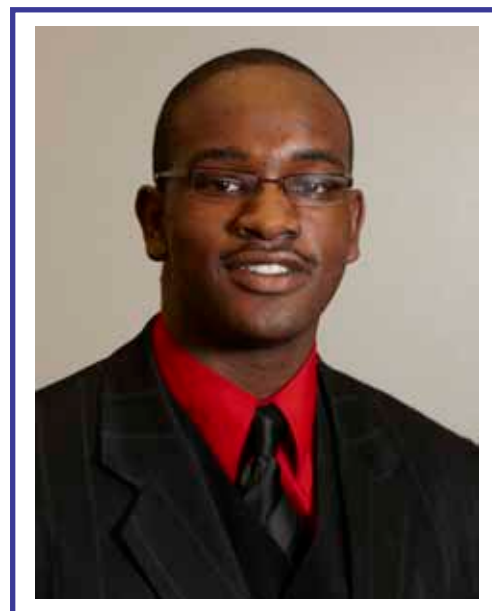


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LUMINESCENT IONIC LIQUID CRYSTALS BASED ON STILBAZOLIUM MOIETIES

BY WILLIAM L. MCCURDY



INTRODUCTION

Both inorganic and organic liquid crystals have become pivotally important to a variety of image displaying technologies. These crystals have drawn much attention due to their ability to confer luminescent properties to a wide spectrum of image-based devices. Because of the luminescent capabilities of liquid crystals, they have evolved applications in chemical industry, solar thermal energy and are particularly prevalent in the liquid display industry. More recently, a growing number of research projects have involved exploration of liquid crystals being used in a biological context to track complex biomacromolecules, such as proteins and nucleic acids.^{1,2} The ability to track different macromolecules inside and outside of the cell will undoubtedly simplify the task of ascertaining the location of key molecules during various biological processes. As a result, the cost-effective and efficient industrial production of luminescent organic salts is important for the furtherance of technologies serving not only the materials science community, but also the biological and medical science communities. The purpose of this research is to describe a new methodology for an efficient synthesis of luminescent ionic liquid crystals²⁻⁶ including a discussion of their applications in the biological/medicinal sciences.

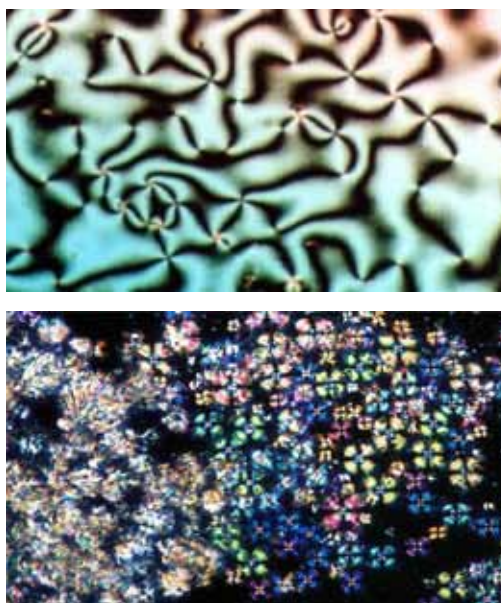


Figure 1. Photomicrographs of liquid-crystalline phases.

In the discipline of biological science, luminescent ionic liquid crystals have made it possible to track complex macromolecules like polypeptides and nucleic acids as they travel in and out of a cell.^{1,2} Osamu Shimomura won the Nobel Prize in 2008 for his discovery of a green fluorescent protein (GFP) that is produced by a jellyfish called *Aequoreavictoria*.⁷ Because of the protein's fluorescent capabilities, GFP has been

used extensively in both the chemical and biological sciences as a protein marker. Although the ideology behind macromolecule tracking with ionic liquid crystals exhibits some functional similarities as GFP, liquid crystals can serve as trackers for DNA and RNA in addition to proteins.

Moreover, an additional area of research interest deals with altering the luminescent properties of the liquid crystals by a relatively simple exchange of the inorganic bromide counter ion. Exchange of the counter ion can also alter other properties such as the thermal transitions and solubility of the liquid crystals. As a direct result of counter ion exchangeability, light-emitting organic salts are not limited to fluorescing in exclusively one color as is the case with GFP. Such an attribute will prove valuable *in vitro* as different macromolecules have varying degrees of absorbance/transmittance with respect to the visible light spectrum.

The tracking capabilities of ionic liquid crystals are made possible by the chemical nature of the crystals in that they are organic salts consisting of positively charged quaternary nitrogen centers associated with negatively charged counter ions to maintain electroneutrality. Incidentally, the ionic liquid crystals containing these positive centers give them opposing charges to nucleic acids. Since both DNA and RNA have phosphate groups that consist of a negatively charged oxygen, the presence of those positive centers in the ionic liquid crystals will result in a net attractive force that effectively causes binding between the two molecules.^{1,2} Once binding has occurred, the appropriate light can be applied to excite the target molecule to luminesce. Additionally, the intensity of the light emitted by the intermolecular complex can be increased or decreased by manipulation of the external energy source.

Luminescent properties are conferred to 1,3,5-tris(bromomethyl)mesitylene (**1**) via three successive substitutions for stilbazolium moieties. Luminescence is the direct result of exploitation of the conjugated $\pi\pi$ -bond system inherent to the stilbazolium moiety. By supplying the $\pi\pi$ -electrons with energy utilizing an external energy source such as UV radiation, the $\pi\pi$ -electrons absorbing the supplied energy are excited from HOMO (Highest-Occupied Molecular Orbital) to LUMO (Lowest-Unoccupied Molecular Orbital). The decay

of electron excitation results in the relaxation of the energy levels causing the electrons to de-excite, which releases energy that lies specifically within the visible light region. The frequency of the radiation is determined by the band gap which is defined as the energy difference between HOMO and LUMO.²⁻⁶

EXPERIMENTAL

PREPARATION OF COMPOUND 1

Mesitylene (1.21 g, 10.1 mmol) and paraformaldehyde (2.26 g, 75.3 mmol) were placed in a one-necked round-bottom flask with 13 mL of 33 wt% hydrobromic acid in CH_3COOH . The solution was heated to reflux for 48 h under positive pressure. The flask was kept in a freezer overnight to enhance the precipitation of compound **1**. The precipitated compound was filtered and dried under vacuum at 60 °C for 12 h. (78.9% yield). ^1H NMR (400 MHz, CDCl_3 , ppm) δ = 2.47 (s, 9H, Ar- CH_3), 4.76 (s, 6H, $-\text{CH}_2\text{Br}$). ^{13}C NMR (100 MHz, CDCl_3 , ppm) δ = 25.2, 30.0, 134.0, 138.0.

PREPARATION OF COMPOUND 2

Compound **2** was synthesized according to literature methods.³

PREPARATION OF COMPOUND 3

Compound **1** (2.32 g, 5.81 mmol) and compound **2** (5.37 g, 17.4 mmol) were placed in a 250 mL one-necked round-bottom flask. Acetonitrile (100 mL) was added into the flask. The solution was heated to reflux under positive pressure for 48 h. After cooling to room temperature, the precipitated yellow solid was filtered and recrystallized from EtOH to give the target molecule. The fine crystalline solid was filtered and dried under vacuum at 60 °C for 12 h (89.5% yield). ^1H NMR (400 MHz, CDCl_3 , ppm) δ = 0.83 (t, 9H, $-\text{CH}_2\text{CH}_3$), 1.28–1.45 (br, 36H, $-\text{CH}_{\text{aliphatic}}$), 1.76 (q, 6H, $-\text{OCH}_2\text{CH}_2\text{CH}_2-$), 1.89 (s, 9H, $\text{CH}_{\text{aliphatic}}$), 2.38 (s, 9H, $\text{C}_{\text{arom}}\text{CH}_3$), 3.94 (t, 6H, $-\text{OCH}_2\text{CH}_2-$), 6.42 (s, 6H, $-\text{CH}_2\text{N}-$), 6.88 (d, 6H, H_{arom}), 6.93 (d, 3H, $-\text{CH}=\text{CH}-$), 7.52 (d, 6H, H_{arom}), 7.62 (d, 3H, $-\text{CH}=\text{CH}-$), 8.03 (br, 6H, H_{arom}), 9.37 (br, 6H, H_{arom}). ^{13}C NMR (100 MHz, CDCl_3 , ppm) δ = 14.1, 18.3, 22.6, 26.0, 29.2, 29.4, 31.8, 59.1, 68.3, 115.1, 120.0, 124.2, 127.5, 128.7, 130.3, 141.4, 143.6, 144.0, 153.6, 161.4.

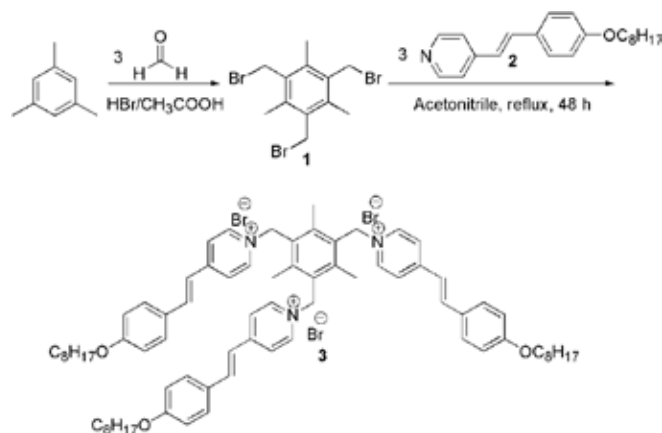
RESULTS AND DISCUSSION

Synthesis of Compound 1

The synthetic routes for the preparation of

compound 3 are presented in Scheme 1. As reported elsewhere,⁸ the bromomethylation on mesitylene converted the terminal methyl group to a benzylic bromo functional group. Furthermore, the proton resonance of the methyl group at 2.47 ppm was chosen to calculate the ratio of benzylic protons in the ¹H NMR spectrum.

To synthesize compound 1, mesitylene was reacted with an excess of paraformaldehyde and HBr in acetic acid. In order to perform the substitution involving the compound, the benzylic positions around the ring should have good leaving groups such as -I, -Br, or -OTs. This reaction involves bromomethylation to accomplish such a task. Bromomethylation occurs via an



Scheme 1. Overall synthetic routes for compound 3.

electrophilic aromatic substitution reaction ($\text{Ar}_\text{E}\text{S}_\text{1}$). The reaction begins with the protonation of formaldehyde from hydrobromic acid, which generates a resonance-stabilized carbocation intermediate. The second step introduces a reactive hydroxyl group in the benzylic position. The electrophilic attack on the mesitylene to form a σ -complex can be considered the rate-limiting step because stability is imparted to the ring by resonance.

Additionally, restoration of aromaticity to mesitylene by the conjugate base of hydrobromic acid will occur at a much faster rate than the previous step since the carbocation increases the overall energy and reactivity of the molecules. Because of the nucleophilic nature of the hydroxyl groups coupled with their benzylic placement, these groups will undergo an $\text{S}_\text{N}2$ reaction to generate the benzylic bromines with hydrobromic acid as the bromine source. The overall mechanism for bromomethylation is shown in Figure 2.

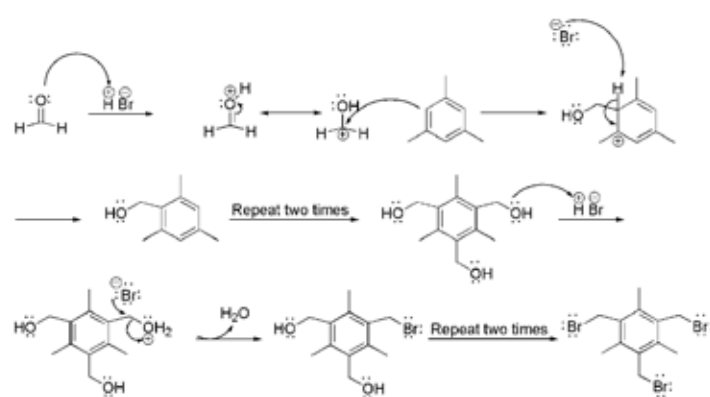


Figure 2. Suggested mechanism of bromomethylation on mesitylene.

To synthesize the desired compound 1, three attempts were used in efforts to obtain a reasonably high yield. In the first experiment, the reaction was set up at 80 °C for 9 h under positive pressure. However, the yield was 41.6% and the melting point was rather broad at 122-136 °C. This result is indicative of the presence of impurities. From the result of ¹H NMR spectrum, the di-substituted compound was suggested.

In the second experiment, the temperature was increased up to ca. 100 °C and the reaction was set up for 12 h. Even though the yield was even lower than the first experiment, the melting point appeared at a broad range of 174-180 °C, which is much closer to the reported value.⁸ The compound appeared off-white and clumpy, which also suggested the presence of impurities.

The final experiment was heated at reflux conditions for 12 h. After cooling to room temperature, white crystals appeared. To increase the experimental yield, the solution was kept in a freezer for another 12 h. The precipitated white crystal was filtered by vacuum filtration and washed with water. Finally, the collected white compound was dried under vacuum at 60 °C for 12 h. Its melting point matched the reported value of 186 °C and the structure was confirmed by ¹H and ¹³C NMR spectra. As shown in Figures 3 and 4, three protons from methyl groups and two protons from methylene groups appeared at 2.47 and 4.76 ppm, respectively. Furthermore, ¹³C NMR spectrum was used to confirm the number of carbons in the structure. Two peaks of methyl and methylene carbons appeared at 25.2 and 30.0 ppm while those of aromatic carbons appeared at 134.0 and 138.0 ppm. The results from the melting point, ¹H and ¹³C

NMR spectra, serve as confirmation that the target molecule was synthesized correctly.

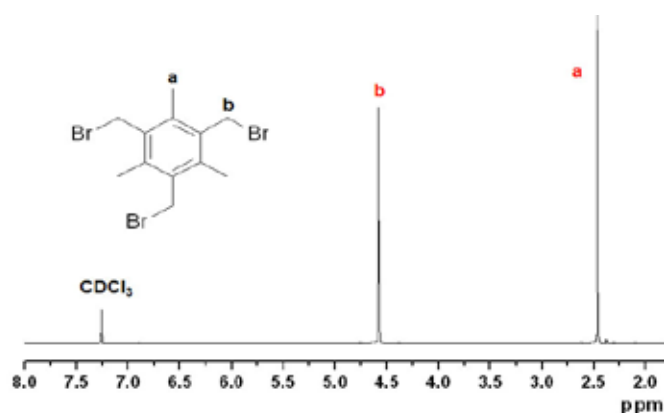


Figure 3. ^1H NMR spectrum of compound 1 [delay time = 1 s, number of scans = 16; 10 mg/mL in CDCl_3 at 25 $^\circ\text{C}$].

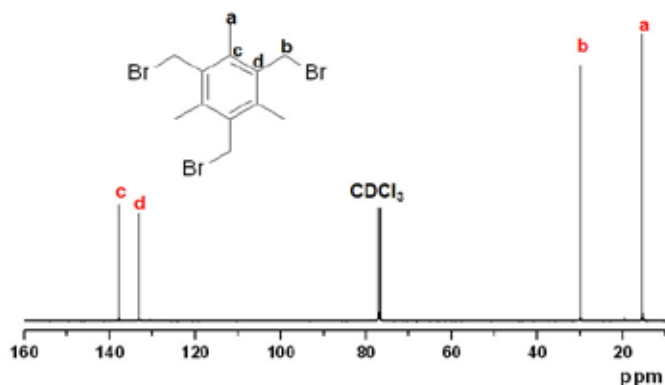


Figure 4. ^{13}C NMR spectrum of compound 1 [delay time = 4 s, number of scans = 1250; 40 mg/mL in CDCl_3 at 25 $^\circ\text{C}$].

SYNTHESIS OF COMPOUND 3

Once a successful bromomethylation on mesitylene is completed, the next step to synthesize compound 3 is to perform a reaction between compound 1 and 2. Compound 2 was previously synthesized in our laboratory using a procedure reported in the literature.⁹ The mechanism occurs in single-step $\text{S}_\text{N}2$ reaction where the stilbazole's lone pair from the nitrogen attacks all three benzylic positions of the initial precursor. At the completion of the reaction remains three positively charged nitrogen atoms neutralized by their respective inorganic counter ions. After each bromine substitution occurs by 1 mol of stilbazolium, the activation energy (E_act) for successive substitutions drastically increases. This phenomenon is a result of the relative instability associated with the cre-

ation of a positively charged electronegative atom—nitrogen in this particular case—coupled with the requirement of repeating such a reaction two more times. For this reason, the reaction needed to be carried out under reflux conditions in an aprotic solvent (acetonitrile) for 48 h to give the starting materials sufficient time to overcome the E_act barrier. After the reaction completed, the precipitated yellow solid was collected by vacuum filtration and recrystallized from EtOH to remove any residual impurities. Its chemical structure was also confirmed by using the analysis of both ^1H and ^{13}C NMR spectra.

In the result of ^1H NMR spectrum, a new set of aromatic peaks appeared between 6.0 and 9.5 ppm. To confirm the chemical structure, the methyl peaks at 2.38 ppm were chosen as a reference. Based on the ratio of the methyl peak, the remaining peaks showed good agreement with the expected value (Figure 5). This result suggested that the reaction underwent completely. Furthermore, its structure was supported by ^{13}C NMR spectrum. The spectrum showed the exact number of carbons from the suggested structure (Figure 6). Unfortunately, its melting point could not be obtained because its decomposition temperature was close to its melting transition. Figure 7 shows (a) and (b) photomicrographs of compound 3 taken under crossed polarizers (without a red quarter plate and with a red quarter plate) revealing its crystalline state. Those of (c) and (d)

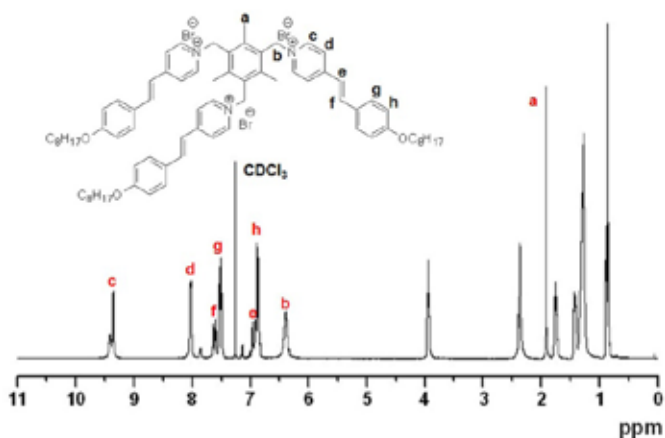


Figure 5. ^1H NMR spectra of compound 1 [delay time = 1 s, number of scans = 16; 10 mg/mL in CDCl_3 at 25 $^\circ\text{C}$].

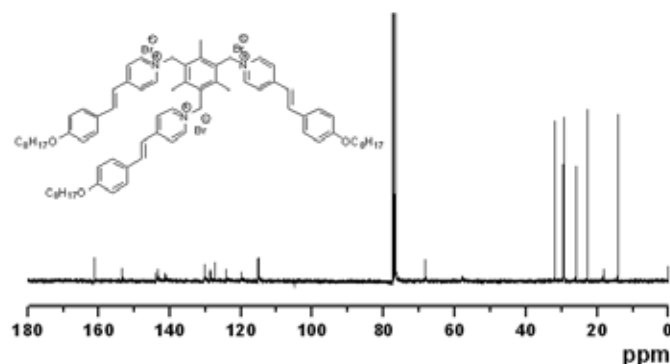


Figure 6. ^{13}C NMR spectra of compound 3 [delay time = 4 s, number of scans = 1250; 40 mg/mL in CDCl_3 at 25°C].

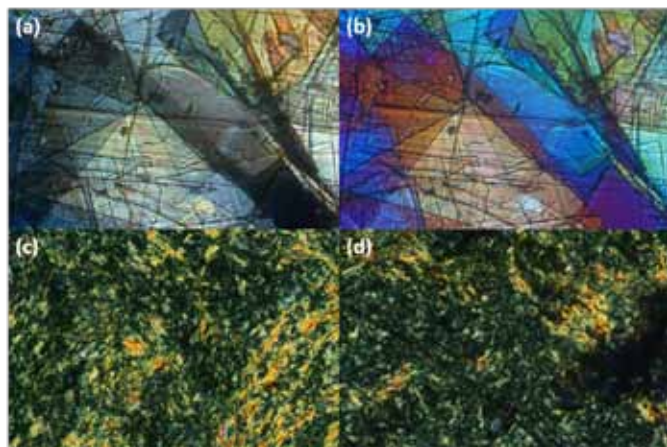


Figure 7. Photomicrographs of compound 3: (a) and (b) taken at room temperature, and (c) and (d) taken at 275°C and 280°C , respectively, under crossed polarizers by using polarizing optical microscope (magnification 400 \times) recorded at 275°C and 280°C , respectively, were used to explore the liquid-crystalline property of this compound.

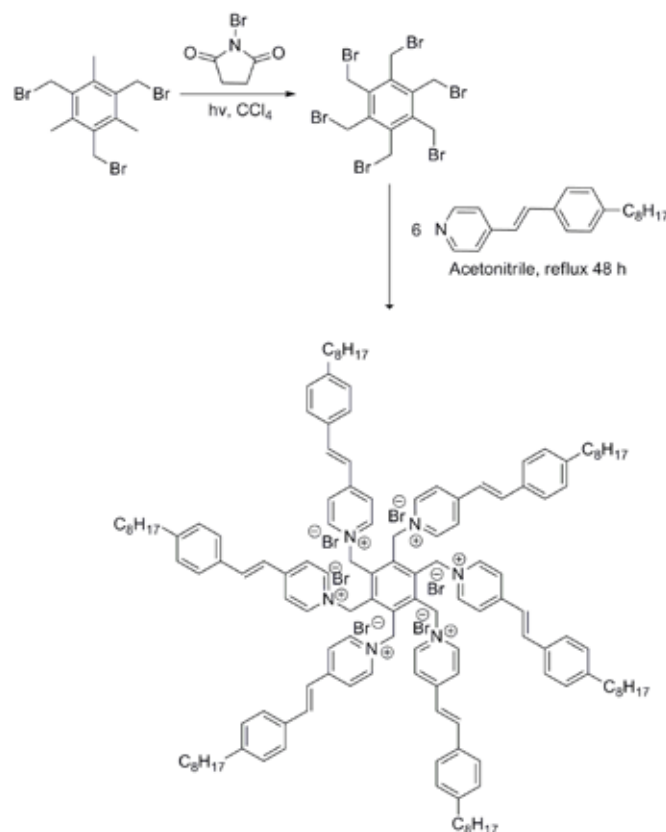
CONCLUSIONS

Controlled regio-selective bromomethylation of mesitylene was accomplished with paraformaldehyde and hydrobromic acid in CH_3COOH . This functionalization allowed the introduction of a bromine atom into the benzylic position of mesitylene. The synthesized molecule as a precursor led to the synthesis of a nitrogen containing ionic salt with bromide counter ions and the number of counter ion parts can be controlled up to six positions by an additional reaction with *N*-bromosuccinimide. The structure of compound 1 was fully characterized using both ^1H and ^{13}C NMR spectra. Reaction between compound 1 and stilbazole yielded compound 3 and its structure was also confirmed by using both ^1H and ^{13}C NMR spectra. Although the

functionalization procedure involved many reaction steps, this new method of preparing liquid ionic salts furnishes a novel synthetic route to functionalized stilbazolium salts and will broaden the applications of these materials.

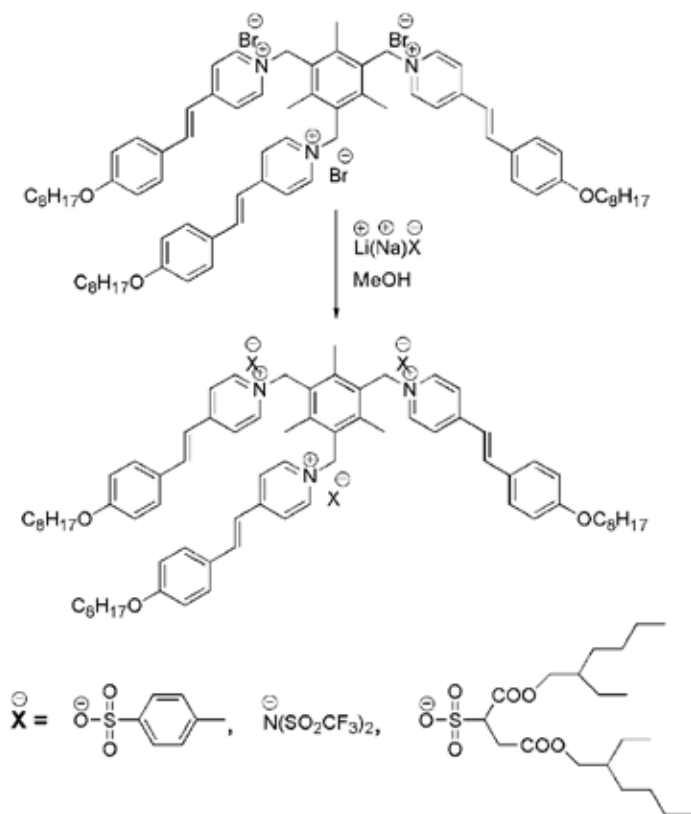
FUTURE RESEARCH

Future research will include the synthesis of hexakis(bromomethyl)benzene by reacting compound 1 with *N*-bromosuccinimide (Scheme 2).¹⁰ This transformation will produce a highly $\text{S}_{\text{N}}2$ reactive compound that is an excellent substrate for synthesizing an ionic salt that possesses stilbazolium moieties in all six benzylic positions around the ring. These larger ionic molecules will have different band gaps between HOMO and LUMO, which can alter the properties of liquid ionic salt. As a result, different luminescent, solubility and physical properties of the ionic salt containing six stilbazolium moieties are expected.²⁻⁶



Scheme 2. Preparation of six stilbazolium moieties containing salt from hexakis(bromomethyl)benzene.

The second research interest will deal with the introduction of larger size counter anions in com-



Scheme 3. Preparation of highly charged ionic salts with various organic counterions. counter ion of an ionic salt alters the luminescent properties of the salts.

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COMPARING THE QUALITY OF EDUCATION BY SOCIOECONOMIC STATUS (SES) NEIGHBORHOOD CHARACTERISTICS

BY YVONNE C. MORRIS



ABSTRACT

Several factors can influence a student's quality of education. These include the family, the individual student, and the school characteristics, in addition to the neighborhood where the student is growing up. By using information available from the public domain, a secondary analysis of high schools in the Las Vegas, Nevada, Clark County School District was conducted to compare the relationship between schools, neighborhoods and socioeconomic status (SES). The schools selected reflect neighborhoods of high, middle, and low income. Variables that promote academic achievement were compared among each high school corresponding to their different neighborhoods. A profile was created for each high school to examine, at a descriptive level, the relationship between schools and neighborhoods. The hypothesis stated that schools in each SES neighborhood will have different levels of quality of education. The results showed that there were various levels of quality of education, specifically low educational quality for low income neighborhoods and high educational quality for high income neighborhoods.

INTRODUCTION

Many factors determine a student's quality of education. Often it is not one level that has an impact on the educational outcomes, but an interaction between all levels. First level – the familial – includes

the parents' education, marital status and income. On the second level, the child's community supports or hinders the student through the rate of crime, availability of public services, and facilities. Also, the individual student must also be considered. Students' attendance, behavioral problems, and the rigorous classes they take are all indicators that demonstrate how well they are performing. Lastly, the school's quality and resources influence the student's quality of education. Schools support student success by hiring teachers who are highly qualified to teach, initiating diversity programs, and improving their teacher-to-student ratio. All levels together are ultimately influential in the student's educational outcomes.

What exactly is a quality education? Numerous factors are included in determining the quality of education thus allowing the definition to be flexible and based on four levels. Fantini (1980) states that it is not only the school's responsibility to provide a quality education, but the parents as well. Since educational decisions begin with the "enfranchised citizen," parents must be held accountable not only to vote, but also to enforce education in the home, as well as to participate and to be involved with the school (Fantini, 1980). Children are not able to make these executive decisions on their own, therefore they need the guidance (Fantini, 1980).

FAMILY CHARACTERISTICS

Certain variables determine the quality of education. A common factor is parental involvement (Brooks-Gunn, 2007; Lupton, 2005). Reports show that parents who are actively involved in their children's education have a positive effect on the students' performance in school (Drukker, Feron, Mengelers, Van Os, 2008). Moreover, the parents' education is an influential factor because they demonstrate the importance of an education (Brooks-Gunn, Duncan, Klebanov, Sealand, 1993; Drukker, Freon, Mengelers, Van Os, 2009; Sirin, 2005; Stewart, 2006). Parents will more likely have resources in the home that encourages academic achievement, in addition to establishing positive values towards education and providing support (Sirin, 2005). Likewise, the level of education often predicts the amount of income the family receives (Sirin, 2005). Since free and reduced lunches for students are based on the parents' income, researchers often use this as a variable to operationalize this construct (Bulach, Malone, Castleman, 1995; Manos, 2008; Sirin, 2005). Naturally, lower grades are linked to students who are eligible to receive free or reduced lunches since their eligibility depends on their parents' income (Lupton, 2005).

NEIGHBORHOOD – COMMUNITY CHARACTERISTICS

Students who are reared in lower socio-economic status (SES) neighborhoods attend schools that are lower in quality (Lupton, 2005). They also have limited resources and public assistance that could help them excel in their community and at home. Museums, libraries, access to the arts, and learning centers are more prevalent in higher quality neighborhoods than compared to lower quality neighborhoods (Fauth, Leventhal, Brooks-Gunn, 2007). Those who live in a higher SES neighborhood and with a better physical environment tend to have higher graduation rates and academic achievement whereas students living in a low SES neighborhood are more susceptible to dropping out of high school and having lower school performance (Brooks-Gunn, Duncan, Klebanov, Sealand, 1993; Wooley, et al., 2008).

Crime can influence the quality of education as well (Fauth, Leventhal, Brooks-Gunn, 2007). Francis (1977) says that schools and neighborhoods are directly proportionate in relation to crime, whether it is high or low. Truancy rates, disruptions, or suspensions are variables that relate to crime within

schools while crimes such as selling drugs, auto theft, gun crimes, or murder would correlate to the neighborhood (Wooley et al., 2008). Financial struggles often keep the family in the low and crime infested SES neighborhood (Fauth, Leventhal, Brooks-Gunn, 2007). Since these offer cheaper housing and low-income families may lack the resources to move out, they most likely will choose to stay there (Brooks-Gunn, Duncan, Klebanov, Sealand, 1993; Fauth, Leventhal, 2007).

STUDENT CHARACTERISTICS

Educators' focus should include literacy, numeracy, diversity and mastery of basic skills (Fantini, 1980; GMR 2005). In addition, individuals' creativity and emotional development should be promoted (GMR, 2005). Attendance is a factor as well. Low attendance produces a low working environment for the student therefore no school work is getting done (Lupton, 2005). Another problem that may exist is that schools are not providing the support or discipline to meet student needs. In addition, students are neither prepared for the next level of education including post-secondary education nor are able to be admitted there (Francis, 1977).

SCHOOL QUALITY AND RESOURCES

The quality of the school and its' resources immensely shapes the educational outcome of students. The availability of honors or advanced placement classes places students who enroll in those disciplines at an advantage because those classes prepare them for college. However, schools that do not offer challenging courses limit a student's chances of being accepted to a post-secondary institution (Brown, 2009). A drop-out rate measures how well the school can retain their students and are able to advance them to the next grade (Brooks-Gunn, Duncan, Klebanov, Sealand, 1993; Fauth, Leventhal, Brooks-Gunn, 2007). In addition, not all teachers are qualified to be educators nor do all schools have highly qualified or experienced staff and administration (Lupton, 2005). Furthermore, not all schools have the necessary resources students need in order to succeed academically, such as textbooks, libraries, computers and other facilities (GMR, 2005).

Ultimately, it is expected that students are able to develop the skills that will permit them to do well in their future careers (Fantini, 1980). According to the Global Monitoring Report (2005), the degree to

which the institution is successful in shaping students' skills is a measure of educational quality. Education should also challenge students (Francis, 1977). Schools' curriculum should include classes that will serve their need, such as honors or advance placement classes. On the other hand, if students are having difficulty, additional assistance needs to be provided so that students are ensured to reach their maximum potential (Francis, 1977). It is expected that educators be able to meet students at their bridge and build off the students' prior knowledge (GMR, 2005).

It has been stated that schools and educators must be able to equip an individual with resources to allow each of them to reach their full potential (Fantini, 1980; Francis, 1977; GMR 2005). Not only must these resources be present in schools, but in the community as well (Fantini, 1980). One example to accomplish this is to bring experts out in the field and into the schools. Fantini (1980) elaborates that people from the medical field can be brought in the schools for health sciences, "the legal community into law and civics courses, and business and industry into career preparation."

CURRENT STUDY

In the current study, the relationship between high-, middle-, and low SES neighborhoods is compared to high schools in Las Vegas, NV. The hypothesis explores the quality of education and academic achievement in relation to a school's SES neighborhood characteristics. It is expected that low SES neighborhoods will have lower quality education indicators while a high SES neighborhood will reflect higher quality of education. Variables promoting academic achievement are isolated pertaining to the schools and neighborhoods.

METHOD

Participants

The data are from the demographic profiles from each school retrieved from the Nevada Annual Accountability Reports available from the public domain. Students from three Las Vegas high schools were used as participants in this descriptive study. The total number of participants was 7,794 students of which 48 percent were female and 52 percent were male. Within this population, the percentage of White students was 40.62%. Black students made up 13.88% of the population while Hispanics were 34.38%. Asian/Pacific Islanders count for 10.67% and

American Indians/Alaskan Natives were 0.78%. Lastly, the total number of free/reduced lunch from these schools was 28.31%.

RESEARCH DESIGN

The secondary data gathered for this study was collected from various web sites. One was the National Center for Education Statistics. Schools are mandated to report their demographics and other statistics in which are then posted on this site. Also, the Nevada Accountability Reports provided profiles for every public school in the state containing information on demographics, technology, and assessment. Lastly, official city websites like the Las Vegas Metro Police Department, North Las Vegas Police Department and the Regional Transportation Commission were used to gather data on crime rates and bus routes.

MEASURES

Characteristics that promote each of the four variables – family, neighborhood, community, student characteristics, and school quality resources that were available within the public domain were used in order to determine the quality of education. Statistics on individual families were not part of the data set. Crime rates and the number of bus routes were included to represent neighborhood characteristics. Individual student variables included daily average attendance, graduation and drop out rates, discipline, and enrollment in a Nevada System of Higher Education institution. School quality and resources were comprised of the number of highly qualified teachers.

PROCEDURE

Using the information accessible from the National Center for Education Statistics website, a profile was created for each high school from the 2007-2008 academic school. Only traditional high schools, grades 9-12, were used in this study. This excludes private, magnet, and empowerment schools since they receive different and/or separate funding from the Clark County School District. Such schools were excluded because students from different school zones may apply to attend these schools, possibly skewing the results since families residing outside the school zone will be counted toward private, magnet, or empowerment's school data. The total number of students from each high school attending and qualifying for free or reduced lunch (FRL) was gathered. The percentage of FRL was calculated

from each school from the total number of student enrollment. The range of FRL was then determined and divided into thirds with each third representing a level of SES neighborhood – low, middle, and high. The schools were categorized among the SES levels depending on the percentage of FRL they had. Once that was determined, one school from each level was chosen at random.

The analysis focused on these variables: student characteristics, school quality and resources, family characteristics, and neighborhood and community characteristics. Statistics gathered include fiscal information such as spending on instructional, instruction support, operations, and leadership. The average daily attendance from all students and as well as the average class size for each of the core subjects were another variable considered. The amount of credit deficient students was obtained, as well as the total number of non- highly qualified teachers teaching core subjects. Various types of behavioral problems were considered such as violence to staff, possession of weapons; distribution, use, or possession of a controlled substance or alcoholic beverages; habitual disciplinary problems and truants. The results from the High School Proficiency Examination (HSPE) were collected in the areas of math, writing, and reading. Lastly, graduation and dropout rates from each school were also gathered, along with the number of students enrolled in a Nevada System of Higher Education institution and the number of students taking remedial courses.

Family characteristics included parents' education and income level and marital status. Although this information is available in the public domain through census tracts, it is only obtainable for the entire city of Las Vegas and cannot be separated by the individual schools and school zones.

Lastly, variables pertaining to the neighborhood and community characteristics were collected. These included the amount of libraries, parks, community and recreation centers, bus routes and the crime activity that occurred within the school zones. By going to the websites of each city the schools were zoned for, data could be found on these variables. In order to find variables considered as neighborhood characteristics, each variable was counted individually within the school zones. Crimes reflecting those that are counted as behavioral problems

in the schools were selected to be found in the school zones. For this study, assault/battery (with a weapon), narcotics, homicides, fights, family and juvenile disturbances and robberies were selected in order to mirror the behavior problems in the schools. It listed the number of each crime, however since the circles overlapped, those crimes occurred in the overlapping portions were counted out. Furthermore, the number of bus routes for each school zone was calculated.

RESULTS

The findings are rather consistent with the hypothesis that the quality of education reflects the quality of the neighborhood it is located in. The data for student characteristics, school quality and resources are from the 2007-2008 academic school year. Table 1 lists the student characteristics. The demographics of each school were shown in regards to gender, ethnicity, and the number of students receiving free or reduced lunches (see Table 1). Since this study was conducted to determine the relationship of the quality of education in each of the three different SES neighborhoods, the number of free/reduced lunches was used. Rodeo High School had the highest number of students receiving free/reduced lunches, which is 1,236 students, meaning that the school has a high number of families who were low income. Woodrow Wilson had the lowest number of students receiving free/reduced lunches at 331 students and was therefore considered to have families earning a higher income. Another factor to regard was that at Wilson High School, the majority of students were white, whereas at Tuscany and Rodeo, the total number of minorities exceeded the number of students who were white.

The average daily attendance was given for each school in percentages. Rodeo High had the lowest attendance rate for both the total number of students and also among the students receiving free/reduced lunches (88.2% and 88.6%, respectively). Tuscany High fell in the middle and Wilson High had the highest attendance rate, again for the total number of students and students receiving free/reduced lunches, which was at 93.4% and 91.5% respectively. The results of the students' scores in the high school proficiency examination were in the areas of math, writing, and reading. Rodeo had the highest percentage of students who were emerging or developing their skills in the areas of math, writing, and reading and the lowest percentage of those

exceeding in these areas. In all areas, Tuscany and Wilson had more students who were exceeding standards than students developing those skills at Rodeo. Overall, Wilson had the highest results of students meeting and exceeding standards in math and writing out of all the schools. Tuscany students' scores lead in meeting and exceeding standards in reading. In writing and reading, both Tuscany and Wilson have no students on the level of emerging/developing standards whereas Rodeo has no students exceeding standards in writing.

Table 2 contains the variables defining school quality and its resources. It showed the graduation and dropout rates for each school for the class of 2007. There was clearly a positive correlation between the graduation rate and SES neighborhood. The lower SES neighborhood had the lowest graduation rate in comparison to the higher SES neighborhoods, which had the highest number and had twice as many students graduating than Rodeo. As expected, Rodeo had the most dropouts. They collectively had more students dropping out than they did graduating. In comparison, the other schools fell consistently within their respectful SES neighborhood. Also, more students enrolled in a postsecondary institution in Nevada from Wilson than from Tuscany and Rodeo. From that same population, fewer students had to enroll in remedial courses than from Tuscany and Rodeo.

The number of teachers who are not considered highly qualified meant that they did not have a bachelor's degree in the subject area in which they taught were tallied. About one-fourth of Rodeo's teachers who taught were not highly qualified. Although there is a small difference between Tuscany and Wilson, they still remain consistent with the hypothesis and reflected their SES neighborhood accordingly.

There was a positive correlation between discipline and the level of SES neighborhood. The school in the high poverty neighborhood such as Rodeo had the highest crime activity, as shown in Table 9. Rodeo had a total of 160 incidents resulting in suspensions or expulsions. Wilson had the lowest total of 70 incidents while Tuscany fell in the middle having 97 incidents. However, Wilson did have the highest number of habitual truants unlike Rodeo who had the least amount totaling at two.

Tables 3 described the neighborhood characteristics represented in this study. The amount of particular crime activity was collected between the specified dates. There is a significant relationship between the SES neighborhoods and the crime rates being that the low poverty neighborhood had merely one instance of crime activity, whereas the high poverty neighborhood had 853 instances during a 60 day period. In addition, the number of bus routes available in each school zone mirrored the need for them in the SES levels. The high poverty neighborhood had about three times more routes than that of the low poverty neighborhood.

DISCUSSION

The current study indicates that at the descriptive level the quality of education differed among schools based on the neighborhood's income. In this case, the neighborhood's income was determined by the amount of students receiving free or reduced lunches. There was a trend for low income neighborhoods and high poverty families to have a lower quality education and limited school resources. Students who live in a high income neighborhood have a higher quality of education. These findings are consistent with prior research done on academic achievement, SES, and neighborhoods (Brooks-Gunn, Duncan, Klebanov, Sealander, 1993; Fauth, Leventhal, Brooks-Gunn, 2007; Lupton, 2005; Sirin, 2005).

According to the Clark County School District (CCSD) Food Service – Income and Eligibility Table, to be eligible for free or reduced lunches for the 2010-2011 academic school year, the income for a three person family must not exceed \$33,874. According to the Las Vegas census data, the median family income (family size of 3.27) in Las Vegas in 2008 was \$63,589. At Rodeo High School, 52.66% of the students are receiving free or reduced lunches. That means slightly more than half of the families at Rodeo High made at least about \$34,000, which was below average income in Las Vegas are considered low-income.

Although the precise family income at each school could not be determined in this study, knowing the given statistics and prior research, students living in a lower SES neighborhood generally have a lower income. This indicates that the parents more than likely have a lower level of education. Schools that have a higher number of students qualifying for free

or reduced lunches had worse grades, curriculum, teachers, and resources within the schools (Lupton, 2005). Also, they have limited access to tutoring, and libraries, or books or computers in the home (Wooley et al., 2008). Not only are these resources unavailable in the home, but they are very limited in the schools and community.

The number of highly qualified teachers played a determining role as well. Sirin (2005) stated that schools in high income neighborhoods had more qualified teachers than schools in low income neighborhoods. Wilson High had a total of 63 teachers who were not qualified to teach their subject areas whereas Rodeo had 100 teachers. This was another example of how low SES students did not have the more privileged access to resources as did higher SES students.

It was also been reported that the attendance in schools located in high poverty neighborhoods was lower than at low poverty neighborhoods, which was consistent with the findings in this research (Lupton, 2005; Sirin, 2005). Rodeo had a rate of 88.2% of average daily attendance, while Tuscany had a rate of 92.2% and Wilson led with 93.4%. Not only was there a low attendance rate for lower SES students, but also the drop-out rate is much higher. Collectively, more students were dropping out at Rodeo (319 students) than students who were graduating. On the other side of the spectrum, Wilson has only 69 students dropping out. Several factors contribute to students dropping out. These include lack of parental involvement that also ties into their SES status and education level, and residence. If their community is not supportive of the students, their attitudes towards school reflected that attitude. Consequently, if lower SES students were dropping out, they were less likely to attend college as well (Brooks-Gunn, Duncan, Klebanov, Sealand, 1993; Sirin, 2005). In the study, this was represented by the number of students who enrolled in a Nevada System of Higher Education institution. Wilson had the highest number of students enrolled, followed by Tuscany, and then Rodeo. Wilson students are more capable of being able to handle post secondary education curriculum unlike students graduating from Rodeo as stated by Francis (1977). The percentage of remedial students follows this trend, although Tuscany does have a lower rate than Wilson. In addition, Brown (2009) states that for minority students in high

school who enroll in few honors or advanced placement (AP) courses, hinders them from being admitting to college compared to white students who had access to these classes. Although this study does not include the number of honors or AP courses, the minorities made up the majority at Rodeo and Tuscany High, where the college admission rates are lower than Wilson, which was predominantly white.

Diversity also played a role in a student's academic achievement. Students who attended a more diverse school tended to face overt discrimination and prejudice (Sirin, 2005). Minorities attended a more diverse school mainly because of their SES (Sirin, 2005). Seaton and Yip (2008) mentioned that school and neighborhood diversity were "positively associated with one another." Because there are various cultural backgrounds, fights were more likely to occur. Rodeo was an example of this. The ethnicities combined made up the majority and they also had the highest number of incidents while at Wilson.

Frequent incidents of behavior problems occurred in low income neighborhoods and urban schools, which would be Rodeo. This was partly due to the fact that neighborhood crime was reflected in the schools and was highly prevalent in a high poverty school (Fauth, Leventhal, Brooks-Gunn, 2007; Francis, 1977; Sirin, 2005; Wooley et al., 2008). Rodeo had the highest number of violence towards students and staff, possession of controlled substances, alcohol and weapons, and also distribution of controlled substances. As supported by the research, Rodeo's school zone also had the highest number of crime activity within a 60-day period compared to the middle and high income neighborhoods. On the contrary, Wilson has the lowest numbers of incidences in school and also the lowest in crime activity with only one incidence being narcotics. However, they did have the highest habitual truancy rates. Tuscany accordingly reports in the middle with their numbers in both the school and neighborhood.

LIMITATIONS

A major limitation was that this study was a descriptive study and did not apply statistics to test and confirm the data. Also, access to all the variables was not attainable. For example, parental involvement which could not be determined by the

information in the public domain. Other missing variables included statistics such as sets of textbooks in classrooms, and demographics of the parents such as marital status, income, and their educational level. Also, the years in which data was available were different. Some information was solely current, while others can be tracked, leaving room for conflicting results.

FURTHER RESEARCH

Future research on this study of the high schools in Las Vegas should examine all variables in depth. Statistics that were not available in the public domain should be attained from the schools directly. Also, demographics on the parents and their families should be gathered. This again would include marital status, income, education level, and whether they are receiving public assistance. The physical conditions of each neighborhood ought to be should be studied as how much litter is seen in the neighborhood, what are the conditions of the parks, is there poor lighting and appropriate street signs, the amount of graffiti, access to public services and general aesthetics. In addition, the history of segregation in Las Vegas should be examined. The reasoning behind why certain populations, specifically Blacks and Hispanics, live where they reside currently should be determined. Lastly, the quality of schools should be researched, specifically how the curriculum is taught and also the cohesion among the staff.

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APPENDIX A

Tables

Table 1: Student Characteristics

		Rodeo	Tuscany	Woodrow Wilson	Total
Categories					
Demographics	Female	1141	1239	1381	3761
	Male	1233	1389	1438	4060
	Total	2347	2628	2819	7794
	White	397	1022	1747	40.62
	Black	536	338	208	13.88
	Hispanic	1340	805	535	34.38
	American Indian/Alaskan Native	12	23	26	0.78
	Asian/Pacific Islander	89	440	303	10.67
	Free/Reduced Lunch	1236	640	331	28.31
Average Daily Attendance (Percentage)					
	Total Students	88.2	92.2	93.4	
	Free/Reduced Lunch	88.6	91.2	91.5	
Assessment	Math				
	Emergent/Developing	13	4	2	
	Approaches Standard	44	22	14	
	Meets Standard	37	2	53	
	Exceeds Standard	6	14	32	
	Writing				
	Emergent/Developing	5	0	0	
	Approaches Standard	27	9	4	
	Meets Standard	66	83	86	
	Exceeds Standard	0	6	9	
	Reading				
	Emergent/Developing	5	0	0	
	Approaches Standard	13	5	3	
	Meets Standard	63	53	38	
	Exceeds Standard	20	41	58	
Discipline	Violence to Other Students		74	70	54
	Violence to School Staff		3	1	1
	Possession of Weapons		25	8	0
	Distribution of Controlled Substances		3	0	0
	Possession or Use of Controlled Substances		48	18	9
	Possession or Use of Alcoholic Beverages		7	0	6

COMPARING THE QUALITY OF EDUCATION BY SES

Total # of Incidents, Suspensions, or Expulsions	160	97	70
Habitual Disciplinary Problems (Expulsion Only)	0	0	0
Habitual Truants (no suspension or expulsion)	2	17	47
Total # of Students	2	17	47

COMPARING THE QUALITY OF EDUCATION BY SES

Table 2: School Quality and Resources

		Rodeo	Tuscany	Woodrow Wilson
Graduation and Dropout Rates	Categories			
	Graduates	251	410	504
	Dropouts (9-12)	319	74	69
Remedial Nevada System of Higher Education (NSHE)	# Enrolled	74	166	208
	% Remediated	33.8	20.5	26
Core Subject Classes Not Taught by Highly Qualified Teachers	Total	100	69	63
	%	25.5	15.2	14.7

COMPARING THE QUALITY OF EDUCATION BY SES

Table 3: Neighborhood Characteristics

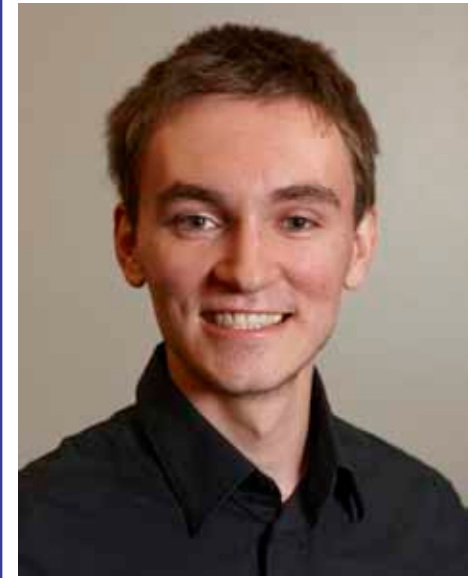
		Rodeo	Tuscany	Woodrow Wilson
Crime Activity	Categories			
	Total	853	714	1
	Tuscany and Wilson: May 30 - July 28, 2010 Rodeo: May 31 - July 29, 2010			
Public Transportation	Bus			
	Routes	16	9	5

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ACUTE ADMINISTRATION OF KETAMINE IMPAIRS LEARNING IN TRACE CUED CONDITIONING: A VALIDATION OF AN ANIMAL MODEL OF SCHIZOPHRENIA

BY MAXYM V. MYROSHNYCHENKO



ABSTRACT

Existing methods of diagnosis and treatments for schizophrenia need improvement, and heuristic animal models of the disease have the potential to provide insight into its underlying mechanisms. The present study focuses on the rat model of schizophrenia based on acute subanesthetic administration of NMDA receptor antagonist ketamine, action of which is consistent with glutamatergic hypothesis of schizophrenia. By using trace cued and contextual fear conditioning, we show that both cued and contextual learning and memory is impaired in ketamine model.

INTRODUCTION

Schizophrenia is a debilitating psychiatric disorder; its etiology is not well understood. Patients with schizophrenia typically show reduced level of social or occupational functioning due to a set of symptoms that are commonly divided into two broad categories, positive and negative. Some of the positive symptoms include delusions, hallucinations, disorganized speech, grossly disorganized behavior; and negative, avolition (poverty of speech), avolition (lack of motivation), restricted recognition and expression of emotions, and memory impairment [15]. Although a number of pharmacological schizophrenia treatments exist, they are limited in their abilities to relieve both the positive and the negative symptoms [15]. One of the reasons for this limitation is that the specific mechanisms responsible for the disorder are not understood. A

better understanding of these mechanisms would allow for development of novel therapeutics with greater efficacy. The development of heuristic animal models that mimic the disorder well would help advance our understanding of its basic mechanisms [16].

Several theories attempting to explain the nature of the disorder have been developed, as well as animal models following these theories. The dopamine hypothesis started with the observation that many drugs used for schizophrenia treatment block receptors for the neurotransmitter dopamine. Therefore, dopamine agonists have been utilized to construct animal models, but the dopamine agonism-based models soon exhausted much of their predictive value [16]. Another theory is based on the fact that NMDA receptors (NMDAR) antagonists, such as PCP (phencyclidine) and ketamine, induce psychosis in schizophrenic patients in remission [14], [13], [16] and produce symptoms of the disorder when administered to healthy subjects (see [2] for references).

The drug ketamine, widely used for anesthesia, in sub-anesthetic doses produces a variety of behavioral and chemical deficits consistent with symptoms of schizophrenia. When injected with ketamine, rats show reduced latent inhibition and decreased social non-aggressive behavior [2]. The drug impairs learning and memory in learning assays. Acute intraperitoneal (i.p.) administration of

3 and 10 mg/kg [1] and 30 mg/kg [2] ketamine injections reduce one-way escape and step-through latencies in one-way escape and avoidance tasks, respectively. In the medial PFC-dependent 5-choice serial reaction time task [24], a 20 mg/kg subcutaneous (s.c.) injection of ketamine impairs learning [19]. In the hippocampus-dependent [6] Morris Water Maze task, ketamine impairs animals' ability to learn spatial information [26], [28], [3].

The glutamate hypothesis of schizophrenia etiology states that blockage of excitatory NMDAR in the hippocampus and prefrontal cortex causes functional, if not structural, damage, which manifests itself in learning, memory, and other deficits [11], [25]. Eventually, NMDAR antagonism by ketamine leads to excitotoxicity [18], because glutamate release disrupts feedback inhibition of interneurons that normally inhibit pyramidal cells. On the other hand, pyramidal cells can still be activated via non-NMDA glutamate receptors, such as alpha-amino-3-hydroxy-5-methyl-4-isoxazole propionic acid (AMPA) and kainate receptors, which are mostly unaffected by NMDAR antagonists (see Figure 1). Pyramidal cells are excitatory, so when ketamine disinhibits them while glutamate activates, excitotoxicity occurs.

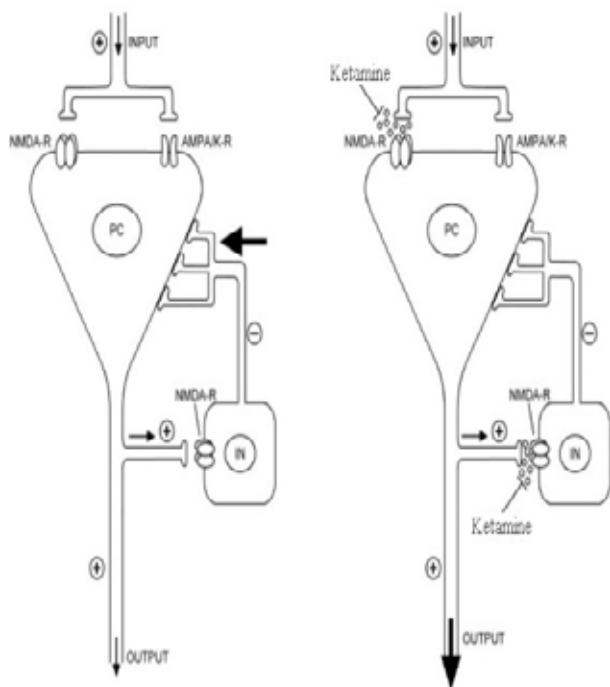


Figure 1: Effects of ketamine on the glutamatergic pathway (see the text for details). Modified from [25].

This is confirmed by data suggesting that anticholinergic drugs reverse neurotoxicity induced by NMDAR antagonists [20] and that hippocampal parvalbumin positive interneurons density is reduced in patients with schizophrenia [29], [27], which is consistent with deficits in ketamine animal model of NMDA antagonism [9].

Our laboratory has previously established a protocol of ketamine administration to rats that leads to behavioral alterations consistent with those in schizophrenia patients. Namely, reduction of startle produced by prepulse stimulus, known as prepulse inhibition (PPI) [26], which is consistent with the fact that PPI is reduced in schizophrenia populations [23], [8]. Moreover, these studies demonstrate reduced spatial learning as measured in the Morris water maze task [26].

In an effort to better characterize this animal model of schizophrenia as well as to pursue its underlying mechanisms, we have expanded the scope of our work to include emotional learning and memory. It has not been extensively studied how they are altered in ketamine model of schizophrenia [7]; however, it is known that fear responses diminish or elevate abnormally in patients with schizophrenia, bipolar disorder, and ADHD and may lead to non-adaptive responses such as suicide [4], [21]. Here, we attempted to examine effects of ketamine on emotional learning and memory as well as to evaluate the relevance of ketamine animal model of schizophrenia in terms of fear learning and memory. Specifically, learning and memory in Pavlovian fear conditioning following ketamine administration was assessed. Subsequently, we tested the animals for prepulse inhibition deficits to demonstrate presence of disruptions consistent with schizophrenia in other tasks.

Emotion is most commonly studied using fear conditioning [5], the paradigm in which an emotionally neutral stimulus such as a tone is paired with an aversive one, such as a foot shock. Once the subject has learned the association, fear could be induced using either the cue (i.e. the tone) or the context (i.e. the setting in which the association was learned). Moreover, cued and contextual fear can be induced by two types of conditioning: delay, in which the unconditioned stimulus (US) is presented during the last second of the conditioned stimulus (CS), or trace, in which the US and the CS

are separated in time (see Figure 2).

Learning in delay conditioning by the ketamine animal model has been investigated before [22] and was found to be reduced compared to controls, which is consistent with deficits in schizophrenia [16]. While delay cued fear conditioning is known to be dependent on the amygdala, trace conditioning engages both the amygdala and the hippocampus [17] and thus makes it more difficult to associate the unconditioned and the conditioned stimuli. We believe that this added difficulty may allow for a better understanding of any deficits observed. Therefore, we used trace conditioning to assess effects of acute subanesthetic ketamine administration on emotional learning and memory of cued and contextual fear.

METHODS

SUBJECTS

The subjects were 16 male Sprague-Dowley rats housed in pairs obtained from Charles River Laboratories, Inc. (Wilmington, MA) weighing about 250 - 270 grams at the beginning of the experiment. They were maintained in temperature - and humidity-controlled environment on a 12-hour light/dark cycle and had *ad libitum* access to food and water. All animals were handled for 3-5 minutes each non-experimental day. All experiments were conducted according to the NIH guidelines and all protocols were approved by the University of Nevada, Las Vegas Institutional Animal Care and Use Committee.

DRUG ADMINISTRATION

Ketamine, an NMDA receptor antagonist, was obtained from Henry Schein, Inc. (Melville, NY) and mixed with saline at a concentration of 8 mg/ml. Starting the first day of training, rats in experimental and control groups were injected with 1 ml/kg of the ketamine-saline mix and pure saline, respectively, 30 minutes prior to the experiment.

BEHAVIORAL APPARATUS AND ASSESSMENT

The cued and contextual fear conditioning chamber (San Diego Instruments, San Diego, CA) was used in all training and contextual fear experiments, while a different chamber was used for cued fear trials. The contextual fear chamber had dimensions of 10.5" (W) × 10.5" (D) × 7.5" (H) and metal rods 1/4" in diameter spaced at 9/16". An open plexiglas box with walls made opaque was used on the days of

altered context experiments. Vanilla extract was also dabbed onto the wall of the altered context to ensure that the scent was also altered. After each session, the altered context chamber was cleaned with ethanol solution, while the conditioning chamber was cleaned with 409 cleaning solution. Freezing behavior was assessed by three experimenters at the same time every ten seconds throughout each experiment. Freezing was defined as absence of all movement except breathing [10]. Shocks were of 0.5 mA, tones 4 kHz, sound pressure 80 dB. Experiments were conducted and analyzed using San Diego Instruments software. Prepulse inhibition were examined using SR-LAB™ startle response system (San Diego Instruments, San Diego, CA). Each animal was placed in the Plexiglas holding container (8"(L) × 3.5"(W)) for the PPI experiment and returned to its home cage afterward.

CUED AND CONTEXTUAL FEAR CONDITIONING

Trace fear conditioning consisted of training and extinction trials. Each training session consisted of 2 min acclimation, 30 s tone, 2.5 s trace interval, and 1 s shock (see Figure 2). On the first (training) day, rats were presented with four US-CS trials for a total of 10 min. On day two, cued fear was assessed by placing the subject in the altered context without any stimuli present during the session except the CS. Subjects were placed in the altered context and allowed to explore for 2 minutes. The CS was then presented for 1 minutes and freezing was measured. A total of two additional 2 minutes no CS and 1 minutes CS presentation was carried out, following which the animal was returned to its home cage. On day three, rats were placed in the conditioning box for 6 minutes to determine context fear. No experiments were done on days four through six. On day seven (144 hours after the start of the experiment), cued fear was assessed again. On day eight (hour 168), contextual fear was measured in the way similar to day three except that the duration of the trial was 10 minutes instead of 6 min. On day nine (hour 192), the session from day six was repeated. On day ten (hour 216), the session from day seven was repeated and a reminder (one 30 s CS, one 2.5 s trace interval, one 1 s US) trial was presented. On days eleven and twelve, sessions from days six and day seven were repeated, respectively (see Table 1).

PREPULSE INHIBITION

PPI tests started after a 5 minutes acclimation

period. Each animal was subjected to a session that consisted of trials separated by an average intertrial interval of 30 s. Trials were randomly arranged; they consisted of the following trial types: 50 ms startle stimuli only comprised of either 90, 100, 110, or 120 dB sound bursts, and PPI trials with 20 ms long prepulse tones of either 74, 78, 82, 86, or 90 dB, 100 ms prior to a 120 dB startle stimulus, each 50 ms long, across four discrete blocks for a total of 36 trials. To assess prepulse inhibition, subjects were presented with each of seven trial types across six discrete blocks for a total of 42 trials. Startle amplitude was measured over a 65 ms period beginning at the start of the startle stimulus. A background level of 65 dB white noise was maintained throughout the test session.

day	type	place
1	training	conditioning chamber
2	cued fear	altered context
3	contextual fear	conditioning chamber
4	—	—
5	—	—
6	—	—
7	cued fear	altered context
8	contextual fear	conditioning chamber
9	cued fear	altered context
10	contextual fear + reminder	conditioning chamber
11	cued fear	altered context
12	contextual fear	conditioning chamber

Table 1: A short description of the trace cued and contextual fear conditioning protocol

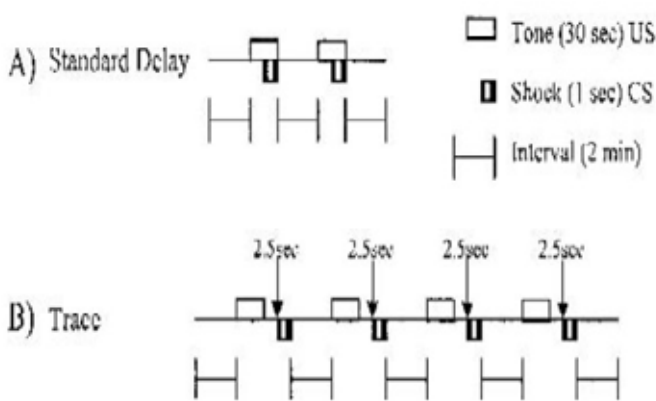


Figure 2: Comparison of delayed and trace (our protocol) conditioning. Adapted from [12].

TAIL FLICK TEST

All subjects were tested to establish if any differences in nociception were present due to analgesia by immersing the animal's tail in warm water and recording the latency to remove it. The time between the immersion and one of the withdrawal responses was measured and an average for each

treatment group calculated. Tail withdrawal or flinching were considered withdrawal responses.

DATA ANALYSIS

Statistical package SPSS was used to analyze all data. One-way ANOVA (Analysis of Variance) was used to examine differences across groups in freezing during training, the tailflick test data, and prepulse inhibition data. To analyze freezing during all sessions following training, repeated measures ANOVA was used.

RESULTS

CUED FEAR

As shown in Table 1 and Figure 3, no significant difference in freezing was detected during training on day 1 before or after the CS-US pair presentation (pre-stimulus $F=.387$, $p=.538$, post-stimuli $F=1.625$, $p=.223$). However, during all four sessions of cued fear assessment (on days 2, 7, 9, and 11), ketamine-injected animals displayed reduced freezing during the three CS presentations (day 2 $F=15.545$, $p=.001$, day 7 $F=8.332$, $p=.012$, day 9 $F=6.444$, $p=.025$, day 11 $F=16.551$, $p=.001$).

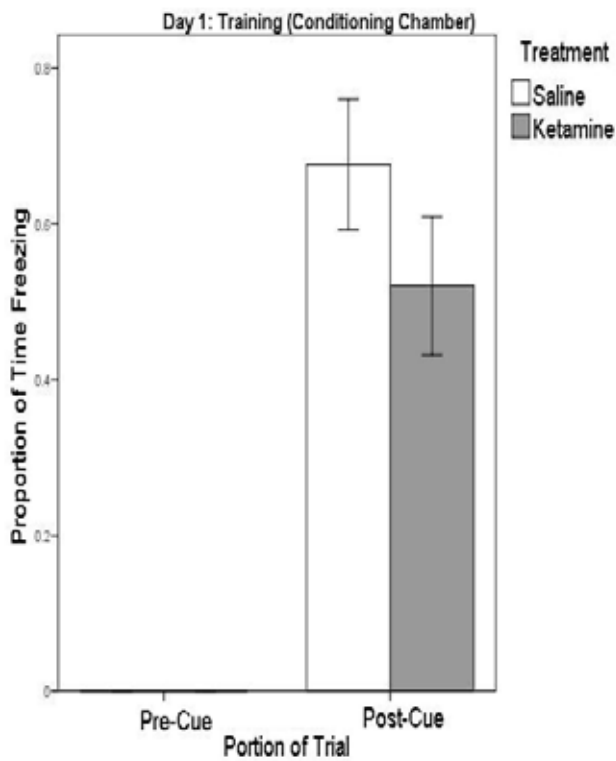
CONTEXTUAL FEAR

On day 3, no significant difference in freezing was observed between the groups ($F=3.849$, $p=.070$). All other contextual fear sessions (on days 8, 10, and 12) resulted in significantly reduced freezing for animals from the ketamine group (day 8 $F=6.540$, $p=.023$, day 10 $F=11.106$, $p=.005$, day 12 $F=16.986$, $p=.001$).

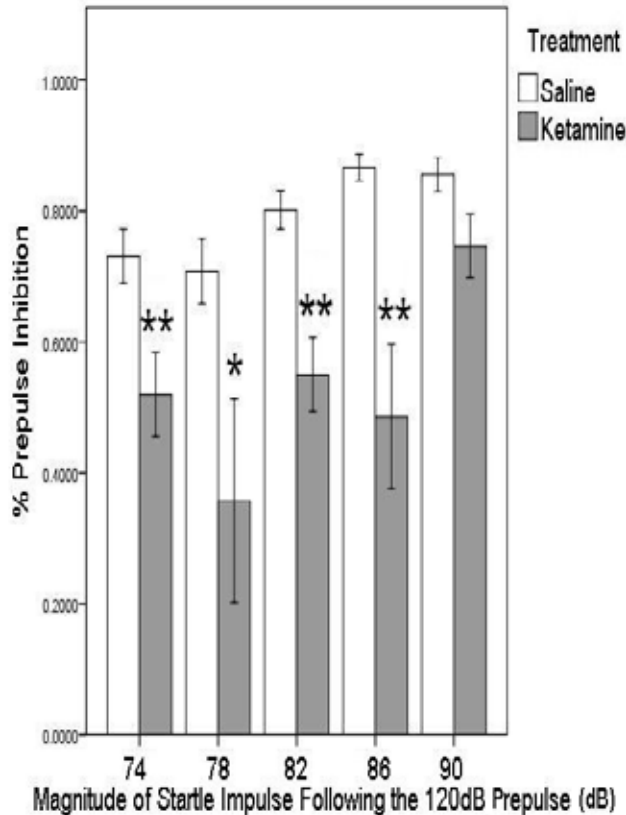
PREPULSE INHIBITION

For all trials with prepulse below 90 dB, prepulse inhibition was reduced in the ketamine group compared to the control subjects: for the 74 dB prepulse ($F=7.623$, $p=.008$), 78 dB ($F=4.676$, $p=.034$), 82 dB ($F=15.240$, $p=.000$), and 86 dB ($F=11.492$, $p=.001$). For 90 dB prepulse, ANOVA showed no significance ($F=3.905$, $p=.053$). On the other hand, in trials that presented only startle stimuli without the prepulse (0, 90, 100, 110, and 120 dB), no differences were found between the groups ($F=.000$, $p=.983$).

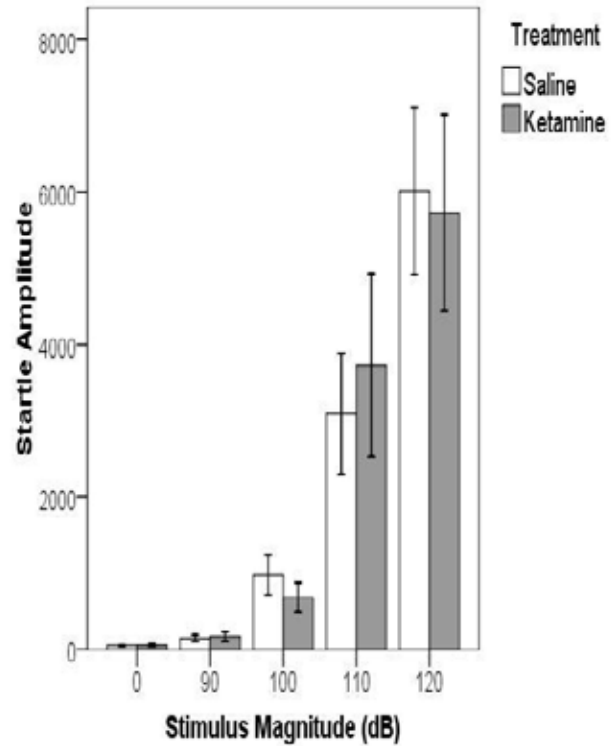
TAILFLICK TEST



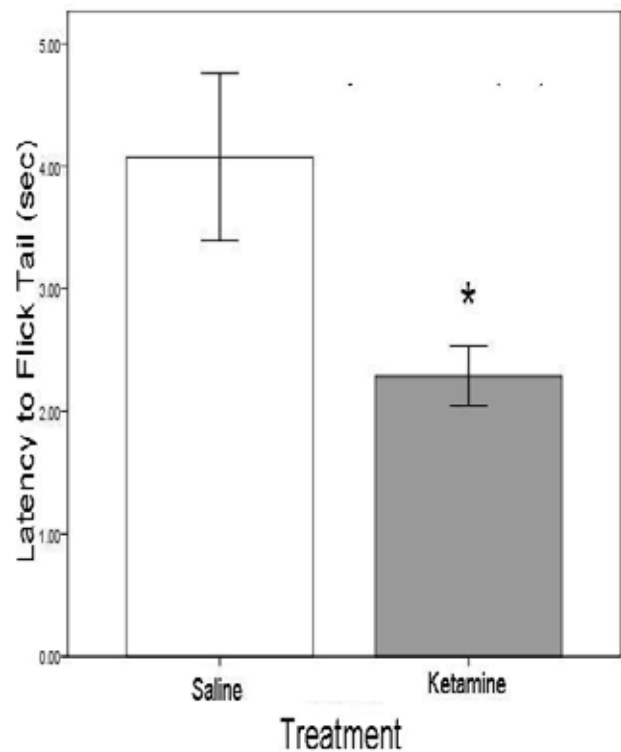
(a) Freezing during training (day 1)



(b) Prepulse Inhibition



(c) Startle trials with no prepulse

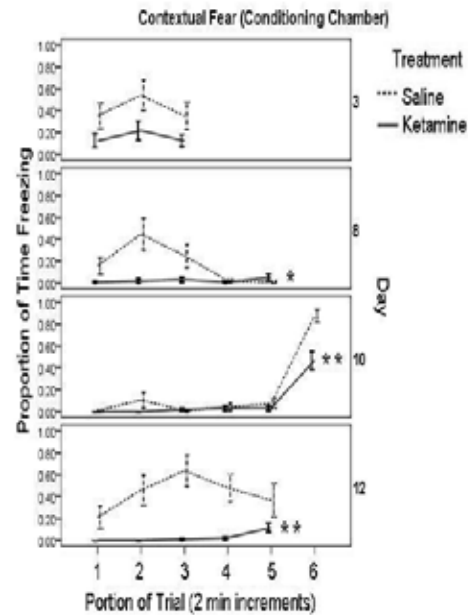
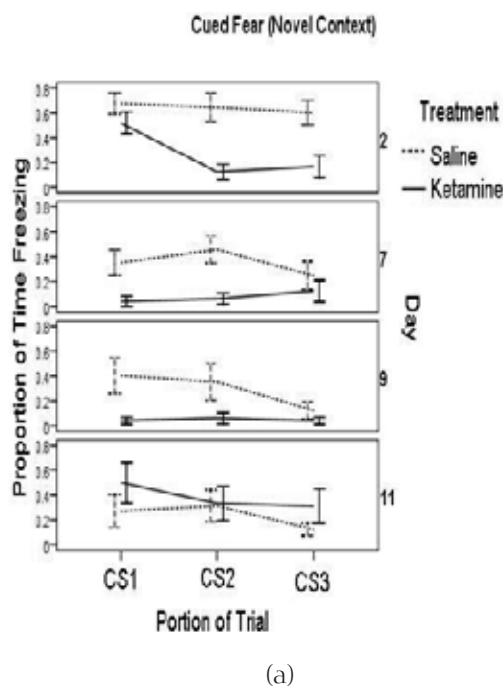


(d) Tailflick test

Figure 3: Prepulse inhibition and tailflick test. (*) $P \leq .05$ for ketamine-treated rats versus saline-treated rats, (**) $P \leq .01$ for ketamine-treated rats versus saline-treated rats.

DISCUSSION

A growing body of literature suggests that NMDA receptor antagonists such as ketamine mimic schizophrenia in many ways. In addition to providing a venue for disorder treatments, such pharmaceutical agents may be used to generate new hypotheses regarding the biological origin of observed anomalies. Previously, ketamine has been shown to affect learning in delay conditioning [22]. Here, we show for the first time that ketamine injections impair the cued learning in the trace fear conditioning paradigm (Figure 4(a)). Moreover, ketamine reduces the less difficult contextual learning (Figure 4(b)). This has two-fold significance: first, ketamine model of schizophrenia shows deficits consistent with the actual disease in that the rats show deficits in the more difficult trace conditioning task. Second, ketamine-treated animals display deficits that are more severe than those observed in schizophrenia patients, since no spacial memory deficits have been reported in human patients. On the other hand, reduced prepulse inhibition (Figure 3(b)) indicates similarity to schizophrenia symptoms. Lastly, these observations are confirmed by the fact that ketamine-treated rats were not found to have reduced nociception in tail flick assay (see Figure 3(d)) or to have hearing deficits in startle without prepulse (see Figure 3(c)). In the future, we are planning to apply molecular techniques to elucidate the nature of ketamine's influence on the circuitry of memory and learning.



(b)

Figure 4: Cued and contextual fear. (*) $P \leq .05$ for ketamine-treated rats versus saline-treated rats, (**) $P \leq .01$ for ketamine-treated rats versus saline-treated rats.

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BODY IMAGE IN HISPANIC MEN: THE INFLUENCE OF ACCULTURATIVE STRESS AND ENDORSEMENT OF WESTERN MEDIA

BY RICARDO RIOS



ABSTRACT

Western culture plays an important part in defining the beauty ideals in men. In particular, these ideals are reflected through media spotlight of "ideal" physiques. Exposure from the media of ideal-body images or muscular ideals has shown to produce a negative self-image in some males. The Hispanic population is the fastest growing minority group in the United States. However, there has been little research done on Hispanic males in regards to body image. The overarching purpose of this study was to investigate the relationships between endorsement of Western media ideals, body image, and acculturative stress in Hispanic males. Furthermore, this study predicts that acculturative stress will strengthen Western appearance ideals and that the internalization of Western appearance ideals will be positively correlated to body dissatisfaction in Hispanic males.

INTRODUCTION

Extensive research suggests that body image can be influenced by exposure to idealized appearance-related images presented in Western media. In a meta-analysis of 25 studies examining exposure to thin-ideal media on body image in women, Groesz, Levine, and Murnen (2002) determined that women exposed to images of thin models felt more negatively towards their body than those who viewed images of normal or plus size models.

Similarly, a meta-analysis of the effects of media images on men's body image, Barlett, Vowles, and Saucier (2008) concluded that exposure to ideal-body images depicting muscular men produced a negative self-image in males. Despite these data, most existing research examining the influence of Western media on body image has been conducted on women and almost no research has examined these relationships in Hispanic men. Consequently, this study examined the correlation between acculturative stress, body dissatisfaction, and endorsement of Western appearance ideals depicted in mainstream U.S. media in college-aged Hispanic males.

WESTERN CULTURE, MEDIA, AND BODY IMAGE

Culture plays an important role in defining beauty ideals (standards) and values of appearance. Culture is a broad term that describes the overarching belief system and value orientation of a group, which influences customs, norms, and psychological processes (American Psychological Association, 2003). In Western cultures, such as the dominant culture of the U.S., considerable emphasis is placed on physical appearance. The importance placed on appearance is obvious considering that it may be a determinant of a person's value. In Western culture, the ideal physique for men is muscular, fit, broad shouldered and tall (Barlett et al., 2008). Furthermore,

in the past few decades, the ideal male physique has become increasingly more muscular with a smaller percentage of body fat, (Pope, Phillips, & Olivardia, 2000; Pompper, Soto, and Piel, 2007).

One way cultural ideals of appearance are learned and reflected upon is through the media. Through television, magazines, and advertisements, Western media prescribes Western cultural ideals of appearance for individuals living in the United States. The media also emphasizes that a successful person attains a certain appearance standard (i.e., ideal body) (Ayala, Mickens, Galindo, & Elder, 2007). Usually, these ideals are showcased by the media as normative and easily attainable to the general public (Warren, Gleaves, Cepada-Benito, Fernandez, & Rodriguez-Ruiz, 2005; Franzoi & Klaiber, 2007). However, these high ideals are usually unrealistic and not easily reached by the average person. Consequently, these ideals can also be learned at a very young age. For example, school girls as young as age 5 have shown signs of internalization of the thin ideal (the idea that a thin female body is better) from peer and media sources (Dohnt & Tiggermann, 2006).

Research suggests that when individuals compare themselves to images or body ideals projected in the media, the effects are usually strong. For example, considerable research suggests that universal sources (i.e. images in the mass media) have a more profound influence when used for comparison than idealistic sources of comparison (i.e. family, friends) (Morrison, Kalin, & Morrison, 2004; Morry & Staska, 2001; Tsiantas & King, 2001; Pompper, et al., 2007). In a study by Morrison, et al., (2004) on body image evaluation and body image investments among adolescents, results suggest that overall, the more exposure to media containing idealistic body images, the more likely an individual would have a negative perception of themselves. Also, male participants (15 to 19 years of age) in this study that compared themselves to universal sources showed tendencies to engage in behaviors such as dieting to gain weight, use steroids to gain muscle mass, and using pathogenic weight control practices (e.g., diet pills, food restriction, over exercising) (Morrison, et. al., 2004).

Magazines are also a profound media source which researchers have used to show how internalization of body image ideals relate to a negative self image and eating disorder

symptomatology, both in men and women. In a study focusing on exploring magazine exposure, internalization, self-objectification, eating attitudes, and body satisfaction in male and female college students, results suggest that exposure to magazines was associated with the internalization of a physically fit body for men and a thin body for women (Morry, et al., 2001). Also, men in this study who read fitness magazines showed more eating disorders and physical appearance concerns (Morry, et al., 2001). Research exploring the effects of exposure to media images depicting the ideal physique on body image and attitudes towards appearance in men has yielded striking findings. For example, in a study by Agliata and Tantleff-Dunn (2004), men who were exposed to television advertisements that contained ideal male images became significantly more depressed and had higher muscle dissatisfaction than those who were exposed to neutral advertisements. The effect of media exposure are particularly important to college-aged males, as the relationship between the media exposure and a negative self-image is more intense in college-age male than adolescent males (Barlett et al., 2008).

ETHNICITY AND ACCULTURATION

Given the strong influence of the media and Western culture on appearance ideals and values, one may question the experience of individuals as they enter a Western cultural context. The term acculturation refers to the process where an individual learns and adapts new behaviors, cognitions, beliefs, language, and values of a new group of people (Paukert, Pettit, Perez, & Walker, 2006). Acculturation research suggests that people evaluate and change their physical appearance as they adjust to new cultural contexts (Bem, 1981). Therefore, one may predict that individuals acculturating to Western culture may feel pressure to adhere to the new standards of beauty and appearance values. For Hispanic males, for example, one may theorize that acculturating to Western culture increases the need to meet the high body image standards set by their new surroundings.

Existing literature examining the influence of acculturation on body image is sparse and yields mixed results. Although many theorists have suggested that a higher level of acculturation would increase the level of body dissatisfaction in an individual, because the individual would be

more in tuned with Western ideals, most research to date (on women) does not support the relationship between high acculturation and body dissatisfaction (Ayala et al., 2007; Joiner & Kashubeck, 1996; Nieri, Kulis, Keith, & Hurdle, 2005; Pepper & Ruiz, 2007; Warren, 2008).

One reason for the lack of a direct relationship between acculturation and body image may be that the acculturation process, and not acculturation itself, is more of a predictor of body image problems. The acculturation process can be very stressful for an individual immigrating and also to later generations of ethnic minorities (Paukert, et al., 2006). Acculturative stress can be defined as the difficulties and stressors that come about from the acculturation process (Castillo, Cano, Chen, Blucker, & Olds, 2008). In example, acculturative stress can come from an individual being marginalized from their social group, such as family or friends. As an individual changes his behavior he may be alienated from his social group, making the acculturative process stressful. Therefore, it may be that it is not acculturation itself that predicts body dissatisfaction, but that it is how stressful (or not stressful) this process is for an individual that predicts body dissatisfaction. From the studies that have researched acculturative stress, most have centered on demographic and social correlates of acculturative stress (Paukert et al., 2006). Many studies have found negative side effects of high levels of acculturative stress in several cultures, including Hispanic populations (Hovey, 1998; Perez, Voelz, Pettit, & Joiner, 2002). One study, by Perez et al., (2001) focused on acculturative stress as a moderator for body dissatisfaction and bulimic symptomatology among females across ethnic groups. The authors found that among minority women, those who had higher levels of acculturative stress, the correlation between body dissatisfaction and bulimia became stronger. On the contrary, those who reported low levels of acculturation showed little correlation between body dissatisfaction and bulimia (Perez et al., 2001). There is a limited amount of studies that have examined the relationships between body image and acculturative stress to our knowledge.

CURRENT STUDY

Examining the influence of the media on body image (e.g., body dissatisfaction, muscle dissatisfaction) is important because it is an established risk factor for many eating disorders like

anorexia nervosa and bulimia nervosa (Polivy & Herman, 2002). However little research has examined the influence of the media on Hispanic males, which is problematic because research suggests that Hispanics may be more likely to engage in normative and extreme weight loss strategies and binge eating than other American ethnic groups (Ricciardelli, McCabe, Williams, & Thompson, 2007). For example, a review of literature examining ethnic differences in body image and disordered eating among males found that 12 out of 16 existing research studies showed that Hispanic and White men had comparable levels of body image concerns (Ricciardelli et al., 2007). Furthermore, given cultural variation in body image ideals, differences in the manifestation and experience of eating pathology are unlikely to be detected unless other factor related to culture are evaluated (e.g., acculturation, ethnic identity) (Ricciardelli et al., 2007).

To address these gaps in the literature, the overarching purpose of this study was to investigate the relationships between endorsement of Western media ideals, body image, and acculturative stress in Hispanic males. Specifically, we examined the following: 1) general levels of body dissatisfaction, endorsement of Western appearance ideals perpetuated in the media, and acculturative stress, and 2) the strength of these relationships. We predicted that acculturative stress would be positively correlated with endorsement of Western media and body dissatisfaction.

METHODS

PARTICIPANTS

Data collection for this study is ongoing. To date, 23 Hispanic male college students attending the University of Nevada, Las Vegas (UNLV) participated (data on these participants was used for this analysis). All participants identified themselves as of Hispanic ethnicity. Participants who described their ethnicity as "Mixed" (e.g. Hispanic and White) were excluded from the results. Sixteen participants were recruited via the UNLV Psychology Subject Pool, and received research credit for their participation. Seven participants were recruited via flyers and received no credit for their participation. Measures were collected using an online data collection format (*SurveyMonkey*). Participants were given a link to which led them to an online questionnaire that took approximately 30 minutes to fill out.

MEASURES

BODY IMAGE.

The Muscle Appearance Satisfaction Scale (MASS; Mayville, Williamson, White, Netemeyer & Drab, 2002) is a 19-item self-report measure for the assessment of muscle dysmorphia symptoms (intense preoccupation with lack of muscle size) in cognitive, affective, and behavioral dimensions. The original scale used a 7-point Likert scale, however a 5-point Likert scale ranging from 1 (definitely disagree) to 5 (definitely agree) have been shown to yield high-quality data with few malfunctions (Chaney, 2008). The MASS includes five subscales along with a total score. The five MASS scales are: Satisfaction, which measures muscle satisfaction; Checking, which measures muscle checking behavior (e.g. "I often find it difficult to resist checking the size of my muscles"); Substance-Use, which measures substance use behavior; Body Building Dependence. The MASS has demonstrated overlap with validated measures specific to body image disturbance using the following tools: Social Physique Anxiety Scale (Hart, Leary, & Rejeski, 1989), Multi-Dimensional Body-Self Relations Questionnaire (Cash, 1997), Body Dysmorphic Disorder Examination Self-Report (Rosen & Reiter, 1994, and Body Image Rating Scale (Mayville, Gipson, & Katz, 1998) (Mayville et al., 2002).

ACCULTURATION.

The Acculturation Rating Scale for Mexican Americans-II (ARMSA-II; Cuéllar, Arnold & Maldonado, 1995) is comprised of two scales. Scale 1 consists of two subscales: First, the Mexican Orientation Score (MOS) consists of 17 items, and second, the Anglo Orientation Score (AOS) consists of 13 items. An overall acculturation score (ACCULT) is calculated by subtracting the mean of the MOS from the mean of the AOS. A high score (i.e., ≥ 1.19) indicates higher acculturation to Western American culture, while a low score (i.e., $\leq -.07$) indicates higher acculturation to Hispanic/Latino culture. Scale 2 (Marginality Scale) consists of 18 items that assess cultural behaviors and attitudes through three subscales: MEXMAR (Latino culture), MAMARG (Latino American culture), ANGMAR (Anglo culture). The ARMSA-II was adapted for this study to be used for Hispanics in general by substituting the wording in some items (e.g., Mexican/Mexican American to Hispanic/Latino). The MAMARG subscale was not used in this study. The ARMSA-II was designed to assess acculturation through several channels

including language use, ethnic identity, cultural heritage, and behavior. A 5-point Likert-scale ranging from 1 (not at all) to 5 (extremely often) is used to assess responses. For Scale 1, only 28 of the 30 items were used, and 12 of the 18 items of Scale 2 were used in this study.

ACCULTURATIVE STRESS.

The Societal, Attitudinal, Familial and Environmental Acculturative Stress Scale (SAFE; Mena, Padilla, & Maldonado, 1987) is a 24-item short version scale of the original 60-item version designed to measure acculturative stress and also an individual's perceived external pressure to conform to dominant cultural norms as a way of avoiding discrimination or prejudice (Suarez-Morales, Dillon, & Szapocznik, 2007). Participants respond to the items using a 5-point Likert-scale ranging from 1 (not stressful) to 5 (extremely stressful).

INTERNALIZATION OF WESTERN MEDIA IDEALS.

The Sociocultural Attitudes Towards Appearance Questionnaire-3 (SATAQ-3; Thompson, van den Bert, Roehrig, Guarda, & Heinberg, 2004) is a 30-item scale self-report questionnaire measuring the impact of sociocultural influence on body image by measuring how important the media is as a source of information about attractiveness. The SATAQ-3 has 4 subscales: Pressures subscale (7-items) measures the perceived pressures from the media to modify one's appearance; Information subscale (9-item) measures dependence on the media for information about appearance, Internalization-General subscale (9-item) measures the internalization of the general media, and Internalization-Athletic subscale (5-item) measures internalization models of models of athletic or fit body types. A 5-point Likert scale ranging from "definitely disagree" to "definitely agree" is used to assess responses. The measure was altered (as recommended by the authors) to make it specific to male participants.

PROCEDURES

Male college students were recruited from introductory psychology courses via Psychology Subject Pool. They emailed the research team indicating an interest in participating in this study. A member of the research team sent the participant a unique link (assigning them a code) for the online study. Participants went to the *SurveyMonkey* website to complete various measures of body image,

acculturation, acculturative stress, and demographic information.

RESULTS

DESCRIPTION OF PARTICIPANTS

Given the small sample size of the preliminary data, missing responses were replaced with the mean substitution. The participants average age was of 20.3 years ($SD = 2.40$). The average body mass index (BMI) was of 23.96 ($SD = 3.96$). Mean levels of used measures were as follows: SAFE ($M = 62.46$, $SD = 23.74$) Body Building Dependence ($M = 9.82$, $SD = 3.74$), Injury ($M = 6.83$, $SD = 2.72$), Substance Use ($M = 6.38$, $SD = 2.50$), Satisfaction ($M = 9.01$, $SD = 2.07$), Checking ($M = 7.65$, $SD = 3.20$), Internalization-General ($M = 26.08$, $SD = 9.81$), Internalization-Athletic ($M = 14.62$, $SD = 5.62$), Information ($M = 26.34$, $SD = 9.62$), Pressure ($M = 16.74$, $SD = 8.54$), and ACCULT ($M = .38$, $SD = .81$).

RELATIONSHIPS BETWEEN MEASURES

A Pearson product-moment correlation coefficient was used to assess the relationship between the measures. As shown in Table 2, Acculturative stress (SAFE) was significantly related with the MASS Satisfaction, ($r = -.444$, $p = .034$), the MASS Checking subscale ($r = .457$, $p = < .027$), and the SATAQ-3 Pressure subscale ($r = .695$, $p < .01$). The SATAQ-3 Pressure subscale was also significantly correlated to four of the MASS subscales: Checking ($r = .609$, $p = .002$), Substance Use ($r = .448$, $p = .032$), Injury ($r = .416$, $p = .048$), and Satisfaction ($r = -.542$, $p = .007$). The MASS muscle satisfaction subscale (Satisfaction) also had significant correlations with the SATAQ-3 Internalization General subscale ($r = -.572$, $p = .004$), and Information subscale ($r = -.505$, $p = .014$). No other significant correlations of importance were found.

DISCUSSION

This study examined the relationships between endorsement of Western media ideals, body image, and acculturative stress in Hispanic males. To date, our preliminary data suggests that acculturative stress correlates with key variables from our hypothesis, mainly body (i.e., muscle) dissatisfaction and perceived pressure from the media. These correlations are a good indicator that there is a relationship between acculturative stress and body dissatisfaction in college Hispanic males. Future analysis will determine if acculturative stress is a predictor to of body dissatisfaction as well.

Furthermore, as seen in other studies that have researched acculturation and body dissatisfaction, acculturation levels did not have any significant correlations with muscle satisfaction ($r = .309$, $p = .152$).

Internalization of the general media and perceived pressure from the media negatively correlated with satisfaction. Coinciding with research concluding that the more in-tuned an individual is to the media the less satisfied he or she may be with her or his own body image. Furthermore, results showed that checking and substance use behavior also correlated with internalization of the general media. As stated, Hispanic males have shown greater tendency to engage in normative and extreme weight loss strategies in comparison to other ethnic groups. Future research should take this into account.

It should be noted that there are limitations to this study. The preliminary data reported solely comes from a population of Hispanic college students, limiting the variety of acculturation and acculturative stress levels found in comparison to the general Hispanic population. Therefore, similar results may not be found with Hispanic males outside the college population. Another important factor is that the Hispanic population is comprised of various cultures, throughout the United States, with mean results could vary as well.

There is no consistent pattern among different ethnic groups that sums up the nature of body image concerns, and different ethnic group also have different body type preferences (e.g., Pacific Islanders and Black Americans prefer a larger body type) (Ricciardelli et al., 2007). Therefore, acculturative stress may not correlate with body dissatisfaction in different ethnic group. The next step for this study would be to look at how acculturative stress, body dissatisfaction and endorsement of Western ideals relates to males in other ethnic groups, as well as to evaluate how these groups compare to each other.

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CAN FEMALE GENITAL MUTILATION VICTIMS BENEFIT FROM CORRECTIVE SURGERY TO REGAIN SEXUAL PLEASURE AND BE “WHOLE” ONCE AGAIN

BY MONIQUE SULLS



INTRODUCTION

What is female genital mutilation (FGM)? The World Health Organization, (WHO) (2010), defines FGM as the removal or cutting of the external female genitalia, all procedures including partial and/or the entirety or other injury to the female genital organs for cultural or non-medical reasons. Female genital mutilation is also known as female genital cutting (FGC), and female circumcision (FC), customarily it is forced upon its victims using basic unsterilized tools in poor hygienic conditions without the aid of painkillers or anesthesia. “FGM can be performed during infancy, childhood, adolescence, at the time of marriage or during first pregnancy” (Hakim, 2001). Studies by the World Health Organization (2010), estimates between 100 and 140 million girls and women worldwide are currently living with the consequences of FGM. Moreover, in Africa alone there are an estimated 92 million victims of FGM age 10 and above. Thus, girls between infancy & age 15 are at the greatest risk (WHO, 2010).

The World Health Organization (WHO), United Nations Populations Fund (UNPF), and the United Nations Children’s Fund (UNCF), (2008) places four classifications on female genital mutilation, they are as follows:

“Type I: Partial or total removal of the clitoris and/or the prepuce (clitoridectomy).” The American Century

Dictionary defines the prepuce as the fold of skin surrounding the clitoris (1997).

“When it is important to distinguish between the major variations of Type I mutilation, the following subdivisions are proposed: Type I a, removal of the clitoral hood or prepuce only; Type I b, removal of the clitoris with the prepuce.

Type II: Partial or total removal of the clitoris and the labia minora, with or without excision of the labia majora (excision).” The labia pertain to each fold of skin of the two pairs enclosing the vulva (as defined by, The American Century Dictionary, 1997).

“When it is important to distinguish between the major variations that have been documented, the following subdivisions are proposed: Type II a, removal of the labia minora only; Type II b, partial or total removal of the clitoris and the labia minora; Type II c, partial or total removal of the clitoris, the labia minora and the labia majora.

Type III: Narrowing of the vaginal orifice with creation of a covering seal by cutting and appositioning the labia minora and/or the labia majora, with or without excision of the clitoris (infibulations)”. In type III, the opening of the vaginal is sown together leaving only a small opening for the women’s menstrual cycle and sexual intercourse.

Type IV: All other harmful procedures to the female genitalia for non-medical purposes."

According to Clitoraid, a non-profit organization that offers surgery to women to reverse the damage caused by FGM, the corrective surgery is when a surgeon is able to uncover the root of the original clitoris and uses the newly exposed root and tissue to rebuild a new clitoris. The procedure helps bring the females body back to its original form and is performed under a local anesthetic. The surgery takes approximately 6 weeks to heal with the experience of sexual pleasure being the end result.

LITERATURE REVIEW

According to Hakim, (2001), psychologically women are taught to believe that sexual pleasure is for the man alone. It is a form of male dominance, to decrease and/or eliminate the sensation of pleasure in order to diminish sexual desires in females and increase sexual pleasure in males (Elnashar, & Abdelhady, 2007). In addition, Hakim (2001) notes hygienic and aesthetic reasons. On the contrary, in the FGM traditional aspect, hygienic reasoning is the idea that the external female genitalia are considered dirty and circumcisions provide aesthetic appeal. Social reasons are to identify with cultural heritage and initiate girls into womanhood. Likewise, Hayford, (2005) argues that cultural and traditional beliefs make FGM necessary in raising a daughter and insuring her social position.

Health Complications and Consequences of FGM

There are immediate consequences associated with FGM that include but are not limited to severe pain, hemorrhaging, shock, acute urine retention, and infections (WHO, 2010). FGM is a horrifying event and leads to many long term complications causing psychological and psychosexual trauma, marital problems and complications during childbirth (WHO, 2010). A study by Elnashar, & Abdelhady, (2007), provides evidence that circumcised women have a higher prevalence of posttraumatic stress and other psychiatric disorders compared to non-circumcised women. Moreover, FGM victims experience a negative impact in their sex life thus creating marital conflict. A study conducted by Elnashar & Abdelhady (2007), revealed that 43% of circumcised women were unsatisfied and 17.5% felt their husbands were unsatisfied compared to 10.9% of non-circumcised women unsatisfied and 4.7% felt their husbands to be unsatisfied. For this reason, childbirth is one of the greatest risks

associated with FGM. The WHO study found that FGM victims have more complications during delivery by cesarean sections, postpartum hemorrhage, and even prenatal death compared to non-circumcised mothers (as cited by, Elnashar, & Abdelhady, 2007). Statistics show 8.9% of FGM victims experienced a tear during their first childbirth compared to 4.3% of non-circumcised women. Furthermore, 23.7% of babies born to FGM victims were distressed compared to 2.1% born to non-circumcised mothers (Elnashar, & Abdelhady, 2007). Child birth puts victims of FGM at extreme risk as it can lead to complications and even death.

METHODOLOGY

The process of gathering information for this research project was to obtain and review literature from medical journals, electronic articles, websites, news articles, reports and studies relative to the topic of Female Genital Mutilation (FGM). The purpose of this research is to bring awareness of the violation that is forced upon millions of women, girls, and infants each year. FGM victims desire to become a "whole" woman. For this reason, the Clitoraid team created the first "Pleasure Hospital", to operate on all African women who wished to participate free of charge. The hospital was staffed with volunteer doctors. Today, in Burkina Faso, 166 women made the request for the restoration of their clitoris to AVFE-CLITORAID and are registered on the list, while waiting for the Hospital to open (Clitoraid, 2010).

FINDINGS

The consequences associated with FGM were thought to be irreversible; however a simple surgical procedure developed by French Dr. Pierre Foldes, "offers hope for victims of FGM" Dr. Foldes has been working with victims of FGM for approximately 30 years and has operated on an estimated 3000 women in France (Olivia Sterns for CNN, 2008). Moreover, there has been an "increasing number of women who have undergone genital mutilation are immigrating to the U.S." As professionals learn to identify the physical facets of female genital mutilation it is imperative to understand its psychological and emotional effects as well (Stotland, 2005).

For this purpose, Clitoraid, a non-profit organization that offers surgery to women that reverses the damage caused by FGM sponsored Dr. Marci Bowers

to be trained directly under Dr. Pierre Foldes. On March 27, 2009, at her Colorado clinic, Dr. Marci Bowers performed the first clitoral repair surgeries ever performed in the United States, successfully restoring clitoral functioning and the capacity for physical pleasure to 3 FGM victims, referred by Clitoraid (2010).

In January, 2010, Dr. Marcie Bowers discussed "how clitoral repair surgery restores pleasure and that the restoration [of sexual leisure] is possible because the entire clitoris is sensory, not just the amputated portion." Bowers also explained, that "Sensation is robbed [through FGM] because the amputated portion retracts back and then gets covered by scar tissue. The clitoris is foreshortened by FGM but it isn't removed – not even a majority of it." The restoration surgery exposes the clitoral stump. Then, with plastic surgery techniques, exposed portion are brought to the surface, sutured and then a new labia is created. "The exposed sensory portion, free of overlying skin and scar tissue, is then there to function" (as cited by Clitoraid, 2010).

However, surgery is not enough. Research by Behrendt A. & Moritz S., (2005) proved that victims of FGM reveal a higher prevalence of post-traumatic stress disorder (PTSD) 30.4 % and other psychiatric syndromes 47.9% than uncircumcised women. "Since many FGM victims have never before experienced pleasure through clitoral stimulation" (CLITORAID, 2010), therapy is equally important in making a mind body connection.

CONCLUSION

FMG is a human rights violation, an act of violence with no justifiable medical purposes that imposes on the rights of young girls and women (WHO, 2010). Therefore, action must be taken to stop this practice. Although, there has been steps taken to eliminate FGM practices, such as in 1997, when the "World Health Organization (WHO) issued a joint statement with the United Nations Children's Fund (UNICEF) and the United Nations Population Fund (UNFPA) against the practice of FGM. In February 2008, a "new statement, with wider United Nations support, was then issued in support of increased advocacy for the abandonment of FGM" (WHO, 2010). However, the prevalence of Female Genital Mutilation remains exceedingly high. Statistics show a high prevalence of posttraumatic stress disorder (PTSD) and other psychiatric disorders in FGM

victims and for this reason it is imperative that these women receive psychological care.

Clitoral mutilation in the name of cultural traditions, religion and/or social factors does not protect women and/or girls from experiencing traumatic psychological and physical damage. Through corrective surgery, pre and post therapy, counseling, and sexual education women victim to FGM can regain sexual pleasure providing them a chance to be "Whole" once again.

For this reason, Female Genital Mutilation victims can benefit from corrective surgery. According to a leading expert in sexual trauma, Larry Ashley stated, "it is just as important to treat the psychological damage done to FGM victims as it is to repair the physical damage." Therefore, it is essential that a team of community providers be assembled and trained to extend pre and post-counseling follow-up to all surgical patients. With this said, "It is especially important; since it will help the women accept and maximize their new capacity for physical pleasure" with the aid of vibrators and sexual education (Clitoraid, 2010).

Hence, the development of clitoral corrective surgery, the 2011 scheduled opening of the "Pleasure Hospital", the recently performed surgeries by Dr. Marcie Bowers, and the newly presented information, creates a necessity for further studies to be conducted on the emotional and psychological effects of FGM victims post-surgery.

The purpose for this research is to promote community and international awareness. If you are interested in learning more or know someone who can benefit from this information, please refer to Clitoraid website at Clitoraid.org.

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BREAKING THE MOLD: THE POWER AND IMAGINATION OF NATHANIEL HAWTHORNE AND EDGAR ALLAN POE

BY BREMEN VANCE



ABSTRACT

This essay examines a selection of works written by the influential writers Nathaniel Hawthorne and Edgar Allan Poe. The focus of the analysis is on the treatment of the image of Science in relation to other philosophical or religious images and takes into consideration the purpose of the author in producing the works, specifically Poe's objective of producing an effect on the reader and Hawthorne's decision to produce artistic stories that leave room for reader interpretation. Religion and science are treated as oppositional worldviews in the interpretation of the selected works, which include "Sonnet-- To Science" and "The Man that was Used Up" by Poe and "Rappaccini's Daughter," "The Birthmark," and "The Artist of the Beautiful" by Hawthorne.

INTRODUCTION

Everyone has a point of view, a way of looking at the world, an abstract understanding of what things are and about the way the world works: a universal schema. "A schema is a tightly organized set of facts related to a particular concept or phenomenon" (Ormrod 241). In an oversimplified explanation for the sake of this essay, schemas are working models or detailed maps of the way things are. Everyone has them in their mind to help in the organization of thoughts and observations by providing a fixed context for processing thought. As new information comes in, it is placed in context and connected with

relevant, established thoughts.

The objective of this essay is to examine selected literary works of Nathaniel Hawthorne and Edgar Allan Poe. Both of these authors have challenged the boundaries of human imagination and literary tradition resulting in the production of works that can only be described with the highest regard and as unique to their respective authors.

Carl Jung was influential in the field of psychology and discussed in great detail the different aspects or processes of the mind; he hypothesized that in addition to the personal psychological impressions that we get through our experiences, "there exists a second psychic system of a collective, universal, and impersonal nature which is identical in all individuals. This collective unconscious does not develop individually but is inherited. It consists of pre-existent forms, the archetypes, which can only become conscious secondarily and which give definite form to certain psychic contents" (Jung 43). Jung's idea of the collective unconscious is perceptive in its observations about commonly held beliefs and systems of thought. The widespread existence of nearly identical types of thought, or archetypes, certainly supports his hypothesis. In observation, the commonly held thoughts would likely seem 'innate' because of the wide spread acceptance over a large population of individuals.

It seems difficult, however, to accept the proposition that everyone is born with a pre-determined or inherited set of beliefs written into the unconscious portion of the mind. While I am not an expert on theories of psychology, for the sake of this essay I propose the possibility that Jung was observing the effects of an external collection of ideas contained within the body of cultural tradition and art that has evolved over time.

As the collected body of knowledge expands, humanity must continually revisit and restructure the way it views the world. With every answer that a new scientific breakthrough provides comes a new list of questions and concerns. Donna Haraway addresses this process in an essay entitled "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s." Haraway highlights the continuous evolution of identity, which fits in with schema theory as the psychological modal of the self, through the explanation that various types of 'monsters' have stood at the boundaries of human imagination throughout history:

Monsters have always defined the limits of community in Western imaginations. The Centaurs and Amazons of ancient Greece established the limits of the centered polis of the Greek male human by their disruption of marriage and boundary pollutions of the warrior with animality and woman. Unseparated twins and hermaphrodites were the confused human material in early modern France who grounded discourse on the natural and supernatural, medical and legal, portents and diseases- all crucial to establishing modern identity. The evolutionary and behavioral sciences of monkeys and apes have marked the multiple boundaries of late-twentieth-century industrial identities. Cyborg monsters in feminist science fiction define quite different political possibilities and limits from those proposed by the mundane fiction of Man and Woman (Haraway 2298).

As Haraway noted, monsters have always stood at the edge of human understanding, and they are, in a sense, gatekeepers to new realms of thought. The learning process begins very early and cultural values and belief structures are taught alongside subjective (scientifically observed) truths. For this reason, it is plausible that the archetypes of Jung are instilled in us through a learning process and that they change over time. As cultural understanding

evolves, new myths appear signaling the deterioration of the boundaries that were previously in place, and as our collection of knowledge grows, so does our catalog of mythological monsters. Haraway went into great detail about specific identity boundaries that have been broken in the past, focusing specifically on the distinction between human and animal, human and machine, as well as the physical and non-physical.

METHODOLOGY

Stephen Greenblatt discusses some problems with previous forms of literary criticism in the introduction to *The Power of Forms* (1982). New Criticism, the close reading and analysis of a text as a complete and independent body, is unable to see the importance of the work in context because it takes too narrow of a view. The problem with traditional Historical Criticism is that it is nearly just as limited because it only imposes a single interpretation based on a single time, place, and set of views, "the earlier historicism tends to be monological; that is, it is concerned with discovering a single political vision" (Greenblatt 2253). As literary criticism opens up to a wider range of interpretation, it becomes more and more important to look through a wider lens to be able to get a complete understanding of a work or body of works.

For its purpose, this essay will attempt to build a historical profile based on the possible influences, intentions, and impact of the author. Then it will present an analysis of works in which these authors treat the subject of science in relation to nature and/or religion to identify the value of each to the author. Criticisms used in the analysis of the authors' works include psychological criticism, archetypal criticism, and historical criticism.

The texts selected were chosen because they deal with the value, power, and danger of scientific pursuits while providing a juxtaposition of cultural values and religious beliefs. While holding two conflicting perspectives in one narrative, these authors are able to produce beautiful and intellectually provocative literary art. This ability has secured them both a permanent place in the canon of American literature. The power of their works to astound an audience and leave a deep, lasting impression is a testament to their artistic abilities.

LITERATURE REVIEW

There is a continuous debate on the best approach for discerning 'truth.' Some choose to submerge themselves in legends, folklore, and religious explanations to help form their world views while others prefer the calculating methods of science in the formation of beliefs about the world. These often incompatible points of view are not likely to be entirely reconciled anytime soon, despite the efforts of those who argue they are not mutually exclusive. Both of the authors under investigation for this essay have had a significant impact on literary traditions, and both strove to have an impact on the audience that would be of some value. In the pursuit of successful careers as authors, these individuals commented, in their own ways, on the power of science and the power of myth for informing personal beliefs and values. As a uniquely American writer, it is anything but ironic that Nathaniel Hawthorne was born on the 4th of July, 1804. It seems similarly fitting that he was born in Salem, Massachusetts, which ultimately provided him with a wealth of material to work into his literature that dealt a great deal with his puritan ancestors that lived in the New England area. "Readers continue to celebrate Hawthorne for his prose style, his perceptive renderings of New England history, his psychological acuity, and his vivid characterizations-especially of female characters" (Baym, Nathaniel 1272).

Hawthorne wrote a number of stories that deal with faith and religion, and it seems that all of his stories deal with some philosophical or moral dilemma, even if it is difficult to identify. The works of Hawthorne are considered by many to be exemplary in all respects, including Poe who proclaimed that Hawthorne's stories "belong to the highest region of Art-- an Art subservient to genius of a very lofty order" (Poe, Importance 909). The stories that I have identified in which he treats the topic of science directly are: "Rappaccini's Daughter," "The Birthmark," and "The Artist of the Beautiful." In these stories Hawthorne uses various figures to embody either the philosophical ideals of religious faith or scientific inquiry.

It is important to first consider the author's intention, and in the preface to *The House of the Seven Gables*, Hawthorne provides a rare glimpse into his intentions as a writer. "He was to be sure a deeply private man, but the elusiveness of his fiction

stems from a deliberate aesthetic of ambiguity" (Baym, Nathaniel 1272). He expresses his desire to produce a work that has value, yet does not become objectionable through unnaturally stringent tampering to achieve a defined message or moral.

He further warns that "to assign an actual locality to the imaginary events" would be ill-advised because "it exposes the romance to an inflexible and exceedingly dangerous species of criticism" (Hawthorne, Preface viii-ix). It is clear from this introduction in his own words that Hawthorne values the form and feel of his work as part of the artistic nature of literature, and that the moral or message for the reader does not need to be obvious. It has even been noted that "Hawthorne not only makes readers do their own interpretive work but also shows how interpretation is often a form of self-expression" (Baym, Nathaniel 1272).

"Rappaccini's Daughter" is one of Hawthorne's most mysterious works, and it "is one of the major unsolved enigmas in Hawthorne's work" (Rosenberry 39). In this highly symbolic story, Hawthorne builds a fiction that taps into our hopes and fears for both science and religious reverence. "By virtue of its unique symbolic multiplication of the personality, it also stands high among his studies of the scientist as an ethical being and of the ambiguous warfare of guilt and innocence in the human soul" (Rosenberry 46).

The incredible garden cultivated by the namesake character, Giacomo Rappaccini, is both awe-inspiring and terrifying in its implications. The garden itself simultaneously, and paradoxically, symbolizes the intended paradise in which man was first set to live, and the potentially odious ends which over-zealous scientific reverence can lead to, in the form of sacrificing innocence. From the idealist stand point, which seems to be Rappaccini's objective, of finding paradise in which innocence and love can walk free of cares and free from outside corruption, Rappaccini's garden can be closely aligned with the garden of Eden, and to earthly perfection. Hawthorne brings this image of the garden to the reader's attention when he asks, "Was this garden, then, the Eden of the present world?" (Hawthorne, Rappaccini 182). The imagery of the mysterious garden filled with incredible plan life captivates the reader and forces them to

wonder if science could be capable of producing such a place.

The central character in the garden, Beatrice, was acclimated to the poisonous nature of the plants in the garden from a young age by her father, who was a scientist above all else. The process of socializing Beatrice with the plants has changed her biological composition to match that of the poisonous plants, making her equally poisonous to outside life. While she is graceful, beautiful, and "endowed with marvelous gifts" (Hawthorne, Rappaccini's 209) by Rappaccini, it is clear that she is lonely. His experiments have turned her into a prisoner who is unable to live outside the garden without fear of killing anyone she comes close to. In this way she has become a victim of the horrible possibilities of science and a symbol for the inevitable atrocities that can be anticipated as side effects incurred by the exploitation of innocence as result of the insidious lure of scientific powers. When she decides to free herself from the prison by accepting an antidote to the poisons, it costs her life, further adding to and concluding her deplorable narrative.

The image of paradise is clouded by fear of the clear dangers of such a pursuit. Hawthorne plays on the question of the morality of anyone who would seek to further any agenda without consideration of the impact on a moral scale. Of Rappaccini, one character, who is a rival in academia, remarks that "he would sacrifice human life, his own among the rest, or whatever else was dearest to him, for the sake of adding so much as a grain of mustard seed to the great heap of his accumulated knowledge" (Hawthorne, Rappaccini 185). This uncaring portrait of the architect scientist shows that the over zealous pursuit of science, or any singular goal, can only result in a morally questionable character. As Rappaccini's rival continues his discussion, he ironically asks, "Are there many men capable of so spiritual a love of science?" (Hawthorne, Rappaccini 185). Through this remark, Hawthorne warns against an unbalanced world view that places knowledge and power above all else.

Another of Hawthorne's stories that deals with a mad-scientist is "The Birthmark." This story, like "Rappaccini's Daughter," ends in the tragic demise of a beloved female character, but this time it is the scientist's wife. Aylmer is a brilliant chemist who

marries Georgina who is described as nearing perfection with the exception of one earthly flaw: a small birthmark on her cheek in the shape of a hand.

As an obsessive man of science who must pursue dominance through scientific powers, Aylmer becomes fixated on the mark with the intent of removing the imperfection. The story builds the birthmark up to be a symbol of the flawed nature of existence, and through the symbol the reader can come to realize that to exist means to have flaws. When Aylmer succeeds in removing the mark from Georgina's face, she loses her connection with the physical world, and dies.

Despite the anti-science feel of "The Birthmark," examination of his creative process reveals that Hawthorne's intentions were more likely to achieve a philosophical observation rather than to specifically comment on the power of science. Hawthorne had a habit of keeping notebooks that he would regularly return to for inspiration while writing. According to Newton Arvin the first idea for Hawthorne's story "The Birthmark" appeared in his notebooks years before the story was finally written. Hawthorne wanted to write about a man's insatiable need to perfect something, and the inevitable destruction of that something. Eventually that something evolved into a person; then, Hawthorne ran across a work on physiology which gave him the final framework for his story (Arvin x-xi).

This story does succeed admirably in questioning the lengths to which some might go to improve or control the world. Aylmer's flaw was his internal drive to perfect his wife. His assistant, Aminadab, illustrates the fatal flaw when he observes, "if she were my wife, I'd never part with that birthmark." Aminadab recognizes that the mark is not a flaw but simply a defining characteristic; which reinforces the flaw lies in Aylmer's quest for dominance through scientific powers.

A lesser known story, "The Artist of the Beautiful," demonstrates the potential for a type of enlightenment through the practical pursuit of advanced scientific theories combined with a sense of the philosophically divine. The story follows a character who became "more and more absorbed in a secret occupation which drew all his science and manual dexterity into itself, and likewise gave full

employment to the characteristic tendencies of his genius" (Hawthorne, Artist 268). This story presents the notion that it is possible to achieve a type of enlightenment through intellect, scientific inquiry, perseverance, and hard work. Hawthorne uses two of the characters to symbolize two different forms of thought and approaches to life: Robert Danforth and Owen Warland. Robert Danforth comes to represent the practical and limited world, while Owen Warland represents intellect and the enlightenment.

It is observed by another character in the story that "it is a good and a wholesome thing to depend upon main strength and reality, and to earn one's bread with the bare and brawny arm of a blacksmith" (Hawthorne, Artist 266). Robert Danforth is the strong blacksmith and is always concerned with what can be easily done through brutish work. All descriptions of Robert remind the reader of this connection with all things earthly, and of his uninspired personality. During the encounters between these two characters, it is clear that Robert has no interest in the absurd project that Owen has undertaken. In one such meeting the blacksmith declares proudly, "I put more strength into one blow of my sledge hammer than all that you have expended since you were a 'prentice" (Hawthorne, Artist 269).

"Here the difference in the size, touch, and strength of hands helps to develop contrast of character" (Idol 458). Hawthorne repeatedly contrasts their physical appearance and strength to effectively polarize their images. While contemplating his own differences with the powerful man, Owen says to himself, "He would drive me mad were I to meet him often. His hard, brute force darkens and confuses the spiritual element within me; but I, too, will be strong in my own way. I will not yield to him" (Hawthorne, Artist 270). This sentiment reveals the potential in Owen to grow beyond the limitations of the other characters in the story, and as the story progresses, Owen struggles a great deal in his pursuit of a greater understanding of the world.

After years of hard work, Warland is finally successful in his objective, and he reveals a mechanical butterfly to his dubious acquaintances. The butterfly was a reoccurring image that

symbolized a childlike wonder in Owen Warland, and suggests that Owen possesses something indescribable, yet remarkable in his character. His frustrated efforts finally pay off in the last scene after a baby smashes the butterfly in his hand. Owen is no longer upset at the destruction of the work, because Owen has become enlightened: "When the artist rose high enough to achieve the beautiful, the symbol by which he made it perceptible to mortal senses became of little value in his eyes while his spirit possessed itself in the enjoyment of reality" (Hawthorne, Artist 290).

As the story concludes, the two men each stand as images of humanity. Robert stands as the representation of the limited, predictable version of human nature, and Owen embodies curiosity, hope, and transcendence. This story comes across differently from other 'mad-scientist' type stories, because Owen has achieved something enviable through his scientific pursuits; and when contrasted with the two other 'flawed' scientists, Owen can be seen as Hawthorne's scientific champion. Owen did not use his scientific abilities to pursue dominance over the physical world; he used it for a truly noble purpose: to obtain spiritual enlightenment.

Edgar Allan Poe, as a literary artist, stands as one of the most controversial in American Literary history. He is a figure that transcends the title of author, and Poe stands as a cryptic and legendary figure. Poe's life was shrouded in myth and conjecture for many years. His reputation ranged from popular and authoritative to scandalous and infamous. The rumors surrounding his image were fueled by the content of his writing, his unorthodox lifestyle, and malicious attempts at marring his persona. "Quarrelsome, temperamental, alcoholic, unreliable, he made few friends and many enemies. The facts of his life, the most melodramatic of any of the major American writers of his generation have been hard to determine; lurid legends about him circulated even before he died, some spread by Poe himself" (Baym, Edgar 1528). Despite his dark reputation, the power of his writing and his influence on literary tradition are unquestionable. Poe's infamy has solidified his place in the traditions of literature, and his historic figure is central to the development of American Literature as it exists today.

Poe's career consisted of an astonishing body of works, but "the bulk of Poe's collected writings consists of his criticism, representing his abiding ambition to become a powerful critic and influence the course of American literary history" (Baym, Edgar 1531). The large body of critical work that Poe produced provides valuable insight into his philosophies of composition, and the insight can help in the analysis of his works.

In his essay "The Importance of the Single Effect in a Prose Tale," Poe sets out to consider the works of Nathaniel Hawthorne. He goes on to outline the attributes of a story that are essential for the highest quality. The primary objective of a story, according to Poe, needs to be singular in nature, and the writer must never lose sight of the objective: "without unity of impression, the deepest effects cannot be brought about" (Poe, Importance 907). He goes on to explain the importance of brevity in a story, since a longer work "cannot be read at one sitting, it deprives itself, of course, of the immense force derivable from *totality*" (Poe, Importance 908). The charm of a narrative wears off if the reader must stop in the middle, and therefore the singular intended effect is greatly diminished.

After emphasizing the importance of a single effect, Poe separates poetry and prose. He says that the short story is in a sense better because it is not as limited as the poem, and he describes the highest goal of poetry to be "the idea of the Beautiful" and "Beauty can be better treated in a poem" (Poe, Importance 909). The tale, according to Poe, can aim to find "Truth" (Poe, Importance 908). It is unclear what kind of truth he means, but he goes on to say that a tale can explore a variety of themes and topics that can be "appreciable by the mass of mankind" (Poe, Importance 908).

Poe attacks science directly in a poem called "Sonnet-- to Science" where he expresses his contempt for its encroachment on the world of the poet:

Science! Meet daughter of old Time thou art
Who alterest all things with thy peering eyes!

Why prey'st thou upon the poet's heart,
Vulture! Whose wings are dull realities! (Poe, Sonnet 1532)

In this short poem, Poe paints scientific inquiry as placing restrictions on the limitless and endless intellectual landscape of the imagination which he preferred over the "dull" restrictions of reality. Science, for Poe, was in effect, attacking the freedom of poetic expression, which was Poe's tool for reflection and conveyance of personal truth.

"The Man that was Used Up" is an example of Poe seeking to produce a single effect in a short story that builds anticipation till the shocking end; and in the process of producing the effect, it illustrates a distrust of science. The story follows an obsessive character, like most Poe stories, that becomes exceedingly curious about a General, Brevet Brigadier General John A. B. C. Smith, whom the narrator met at a party.

As his attempts to understand the story of the General repeatedly get interrupted, the obsessed character becomes increasingly frustrated until he finally decides to visit the General himself to understand what everyone else in the story already knows: that the General has become nearly entirely dependent on prosthetics after being held captive during the war. The General's entire physical appearance has been the result of a seemingly endless list of the highest quality and artificial body parts; and for that reason he is "the man that was used up" (Poe, The Man 316). While the story produces a chilling effect, the story deals with many questions about human identity and, as the charming general puts it, "the rapid march of mechanical invention" (Poe, The Man 310).

There is historical significance to the story, as it relates to military campaigns of the time. David Blake explains that there has also been significant effort to relate the story to the historical influences of the time. For this analysis, however, its importance lies in Poe's "fusing the captivity topos onto a fantasy of the perfectly constructed warrior--a Cyborg, in effect, whose technical parts give semblance of humanity" (Blake 329).

"Though deeply rooted in its age, the story's response to the Indian wars of the 1830's is quite relevant today in its cultural and aesthetic orientation" (Blake 328-329). This story builds the portrait of a man that has blurred the line between being man and machine, and in effect represents the coming image of the Cyborg: "he anticipates

both the champions of military technology and the radically theorized hybrids that serve to undermine Western dualisms and boundaries" (Blake 329).

FURTHER RESEARCH

"You must follow me carefully. I shall have to controvert one or two ideas that are almost universally accepted" (Wells, Time 1). H. G. Wells's character, the Time Traveller, demonstrates the practice of breaking down psychological modals on the first page of *The Time Machine*, and any further research would certainly start with an in-depth analysis of the scientific romances that H. G. Wells is well known for. His works blazed a trail for the genre of science-fiction, and are undoubtedly filled with ideas that press at the limits of human imagination.

In order to advance this research further, a more in-depth analysis of Jung's archetypes as they may apply to these writers and their ideas should be undertaken. While there has been significant amount of research done on the topic of archetypes, the research to be considered and perused to advance the ideas presented here is the archetypal images of science and of religion as they are endowed with features by a wide range of writers. An analysis of this type would likely show a continuous evolution of social perspectives by highlighting the intended messages of the authors, the process of assimilation into the existing individual and collective schemas as shown by reactions to creative fiction and other artistic fields. Artistic mediums are best suited for this type of research, because it is often from these mediums that culture draws and transmits its perspectives and values.

CONCLUSION

The origin of this research was the simple objective of establishing a relationship between the intellectual influences on authors and the views about scientific and supernatural assertions as shown by their literary works. The goal was to connect the specifics of the content to relevant events in history that may have had a direct and necessary relationship. An observation about the close timing by Einstein relevant to space and time was one of the motivations for beginning my research. While reading Wells's autobiography, however, it became clear that the connection

would be difficult to make conclusively as Wells observed, "The idea of treating time as a fourth dimension was, I think due to an original impulse; I do not remember picking that up. But I may have picked it up, because it was in the air. If I did not then the bias was innate" (Wells, Experiment 550). This reflection by H.G. Wells may very well show the power of the collective influence of cultural and social views on the thoughts and ideas of individuals; it may also be an accurate description of an original idea. While I may speculate on which is accurate, the truth in this case may be lost to history.

The course of researching the motives of each author during the composition of their literature led me in a new direction: I contend that the reason each of the authors presented here had a profound effect on their respective audiences was because they forced readers into an original and influential imaginative state where their previous assumptions dissolved and new forms of thought were able to emerge. By stretching and breaking through the limits of common psychological models, these writers provided their audiences with the means for a new perspective on the world. I have further concluded that the use of scientific or religious content is reflective of the modals that they were working in; however, the content is incidental as shown by their motives during the creative process. Each of the authors may have had their own views on science, but ultimately those views appear nearly irrelevant to the importance and power of their works.

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MALE ANOREXIA IN THE MODERN 2010

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ABSTRACT

The explanation for anorexia nervosa has always been a contentious subject in both the medical and social sciences. Theorists have either thought that anorexia is caused either by physiologically or psychologically reasoning (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999). However, most now conclude that it is a combination of a psychological disease that generally comes from physiological convictions. (E.g. Grogan, Williams, & Conner, 1996; Leit, Grey, & Pope, 2002; Ogden & Munday, 1996). For the intended purpose of this literature review, the scope will be limited to a discussion of the availability of research conducted on this specific topic. Since the fundamental sources of anorexia are different for males than females, it is impracticable to depict a clear parallel across both genders. Anorexia nervosa is often undiagnosed in males because there has been a perpetual escalation in the prevalence of eating disorders amongst adolescent boys over the last 30 years (Raphael & Lacey, 1994). As the characteristics of the afflicted population are altering, so too are the theories about what actually causes this illness.

INTRODUCTION

Anorexia nervosa is defined as a serious mental disorder characterized by inappropriately low body weight, a relentless pursuit of thinness, and distorted cognitions about body shape and weight. Anorexia

nervosa commonly begins during middle to late adolescence. However, onset in prepubertal children and older adults has been described. Anorexia nervosa also has a high mortality rate.

DEFINITION

The DSM-IV lists four criteria for the diagnosis of anorexia nervosa:

1. Refusal to maintain body weight at or above a minimally normal weight for age and height
2. Intense fear of gaining weight or becoming fat, even though underweight
3. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or denial of the seriousness of the current low body weight
4. In postmenarchal females, amenorrhea (i.e., the absence of at least three consecutive menstrual cycles).

The DSM-IV also describes two subtypes of anorexia nervosa. The restricting subtype involves eating behavior characterized by restriction of type and quantity of food without binge eating or purging behaviors. The binge-purge subtype involves binge eating and/or purging behaviors such as vomiting or misuse of laxatives.

PREVALENCE

Anderson (1992) proposed that males who acquire eating disorders differ from females in three main areas of extreme dieting behaviors. The first includes reasons for dieting. He contended that females diet because they feel overweight and that males diet because they have been overweight in their lives. Second, males more often than females diet to achieve specific goals in sports. Third, there is a larger prevalence of men who diet to avoid probable medical problems. Males may think that dieting and exercise will help them feel more in control and more masculine, which, may lead to more respect from others.

CHARACTERISTICS: (MALES ONLY)

Males account for 5-10% of those diagnosed with anorexia nervosa (Alexander-Mott, 1994; Anorexia Nervosa and Related Eating Disorders, 1998). However, these estimates may be incorrect as this disorder is likely to be underreported and misdiagnosed in males. This is due to the fact that existing literature includes various explanations, causes, treatments, and prevention of anorexia nervosa. However, despite the voluminous articles, papers, and books written on this topic, little or no mention is made about males. Keel, Fulkerson, and Leon (1997) stated that there were no studies of eating disorders in early adolescent males and that most research on predictors of eating disorders were based on female samples. As a result, these results may not generalize to males. In fact, there may be other unknown factors regarding poor body image, low self-esteem, and the resulting eating disorders in males.

Keel et al. (1997) proposed that how adolescent males feel about their bodies could influence their ability to gravitate toward anorexia. The factors that might determine this are still unknown, because the variables used in current studies were determined by prior research based on females. Carlat, Carmago, and Herzog (1997) further asserted that little has been written about males with eating disorders, and that most of this research has been limited to case reports.

ASSESSMENT

Anorexia Nervosa is an eating disorder affected by a complex mixture of social, psychological and physical problems. According to Dept. of Health and Human Services (1995, 2001) there are two

types of Anorexia Nervosa: the restrictive type and the binge eating/purging type 90-95% of individuals with Anorexia Nervosa are female. It typically develops in early to mid-adolescents and affects about 1 in 24000 adolescents.

Halliwell and Harvey (2006) found that 6% of boys regard themselves to be vastly underweight, 11% underweight, 65% reported that they had normal weight, 15% stated they were overweight, and 2% acknowledged that they were very overweight. This is compared with 16% of boys who were classified as overweight. This suggests an inconsistency between perceived weight and classification.

Further more, the National Center for Health Statistics estimates that about 9,000 people admitted to hospitals were diagnosed with bulimia in 2001, the latest year for which statistics are available, and about 8,000 were diagnosed with anorexia. While people of all races develop the disorder, the vast majority of those diagnosed are white. About 1,000 men and women die of anorexia each year, according to the American Anorexia/Bulimia Association. More specific statistics from the National Center for Health Statistics show that "anorexia" or "anorexia nervosa" was the underlying cause of death noted on 101 death certificates in 2001, and was mentioned as one of multiple causes of death on another 2,657 death certificates.

TREATMENT

To treat those with anorexia nervosa, it is necessary to improve eating habits and weight gain. Some individuals will have to be forced to gain weight through hospitalization and/or tubal feeding. Once the starvation process is reversed, psychotherapy may begin to address the psychological issues behind the eating disorder. Therapy for anorexia nervosa reduces negative thoughts and changes behaviors. Anti-depressant or anti-anxiety medication may also be beneficial because these medications can facilitate the recovery process and make re-feeding less traumatic.

Male anorexia nervosa is an immense problem that requires a heightened respect from mental health and medical practitioners. Although, it is not as common as other psychiatric disorders, it is still necessary that these professions become acquainted with it and extend awareness to the broad community.

CONCLUSION

As with any assessment or supposition, there will always be possible problems; which are why it is important to address such things, so that further research and theories may be drawn from this material. Some of the problems with this assessment are that past studies regarding this subject generally only utilize a small sample size of males, if any, and their experiments methodology uses guidelines for females who suffer from anorexia. This may make it very difficult to ever obtain a reliable male specific profile in order to identify causes, symptoms, and accurate methods of treatments.

There are still many theories as to what the onset of anorexia in males actually is, and it is important to look at all of them individually and maybe even grouped together, so that these individuals can get the help they need. In any case it is essential that the method of treatment for anorexia should be processed through medical intervention, education, restoring weight, and psychotherapy. (Crosscope-Happel).

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