Foreword

Over the past decade, the California State University, Sacramento’s McNair Scholars Journal has developed into a treasure that showcases the intellectual talents of our scholars and the commitment to teaching and learning of our faculty. This 10th anniversary allows us the opportunity to reflect on the exceptional undergraduate experience the McNair Program offers. The opportunity to interact with faculty in the quest to explore new ideas, concepts, and theories is the benefit of such an interactive teaching and scholarship environment. The quality of the work published in this journal is proof that undergraduate research is important to the university and its students.

Our scholars have learned to articulate their research questions and hypotheses, and systematically engage in the process of finding answers and drawing conclusions from the data gathered. This journal makes the research tangible, allows McNair scholars to demonstrate the importance of using their knowledge, and showcases their research interests to the academic community at-large. Their research effort in such a well-supported academic setting provides them with the skills to enhance their academic experience and prepare them for research and study at the doctoral level.

Since its inception, many faculty, staff, and scholars have shaped the direction of the program. Our most important asset has been the talented students and their dedicated faculty mentors. In addition, many offices and student support programs on the Sacramento State campus have been our allies in identifying and supporting the students in our program. We appreciate the efforts of all those who have supported the program and offer a tribute to Dr. Isabel Hernandez-Serna for her vision in seeking to bring the Ronald E. McNair Post-baccalaureate Achievement Program to our campus. Her vision created a legacy that continues to provide an excellent opportunity for the future scholars among us.

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(A Month of Debate over Personal Narratives of Body and Sex)

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Abstract

The first Iranian blog launched in 2001; very soon it became a phenomenon where many among the young Iranian middle class could talk openly about their society and its political, cultural, and social issues. This paper analyzes an April 2008 debate in the Iranian blogosphere (or Weblogestan) over female body image and sexuality. Considering gender and residence, this study suggests that despite what first looks liberating in many of these writings, the majority of women who contributed to this debate respected determined social norms. Avoiding writing about themselves, they tried to convince others of the necessity of such writings.

From the beginning of Iran’s documented literary history, male authors have talked about male and female bodies and their sexual relationships. As Keddie (2008) states, historians of women’s sexuality have not found many pre-modern sources written directly by women and they have until now “had to base their work on what male historians, philosophers, theologians, clerics, Sufi and unorthodox religious writers and others had to say about women and sexuality” (7). Iranian classic and modern literatures are not exceptions. If there were objections to these stories, it was not about male authors being open in public about sexual relationships, but about women reading the stories. Nejam od-Din Obeyde Zâkâni, Persian poet and satirist of the fourteenth century, stated that there is no chastity in a woman who reads Vis and Ramin, an ancient Persian love story. Women are also forbidden to read Sure Yousof, the chapter of Joseph, in the Quran that is the love story of the Israeli prophet Joseph and the woman who fell in love with him while she was in a marital relationship (Kamarei 1984, 516). In general, it can be argued that the history and sociology of Middle Eastern female sexuality has had relatively little academic attention. Most anthropologists and sociologists who live in local communities prefer to concentrate on other topics (Keddie 2008).

In the beginning of the twentieth century, in a region where female illiteracy was high, writings by women became a strategic and transgressive act allowing female voices to enter the larger public sphere despite the multiple
filters seeking to neutralize subversive impulses (Skalli 2006). Entering a new era of press and printing, women’s education and an increase in their literacy rate allowed Iranian women to find public audiences for their voices, but as Najmabadi argues, “it became a veiled voice” and they had to erase or replace its sexual markers and sanitize their words (488). The hetronormative modern society constructed a new world for females talking about their bodies and sexuality. They had to change their words and way of speaking in this new society to have a place in it (Najmabadi 1993).

The Internet first entered the lives of urban middle class Iranians in the late 1990s. It expanded only after 2001, when the Unicode system made typing in Persian possible and when owning a computer and connecting to the Internet became technically easier and more affordable (Amir-Ebrahimi 2008). Writing in Persian opened the door of blogging too. A blog is a website format containing periodic time-stamped posts on a common Web page. It is an organic entity, usually, but not always, maintained by a single person who publishes entries or posts text, images, or other data formats on a regular basis. Blogs are either publicly or privately accessible on the Web, presenting theme-based discussions related to various topics. The first Persian blog was launched in September 2001 and it quickly spread among Tehran’s young, middle class women, and it became known as the first personal medium for them to express themselves. Learning technological aspects of this new medium, these women started to narrate like never before. Amir-Ebrahimi argues that blogs became a new modern tool for women to trespass the red lines of urf (customary practice), or sharia (Islamic law), “which confine them not only behind walls and veils but also in their words and expression” (Amir-Ebrahimi 2008, 98). For women, the technology is useful; it permits access to information and knowledge outside the mechanisms of censorship and it increases the volume of women’s voices, without the censorship of the traditional media (Skalli 2006).

These women are overcoming censorship in some taboo topics like their private sex life and sexual desires. They are just starting to write about their private lives, not only about their sexual partners, but even about masturbation and their relationships with their bodies in a few cases. In the last seven years, with the increase in blogging and the inclusion of many feminist voices in the Weblogestan (Iranian blogosphere), it is less unusual for readers to read more about women talking openly about their bodies and intimate relationships. But the reaction is mixed. Amir-Ebrahimi (2008) argues that male bloggers write about their sexual experiences without judgment. She argues though, that women are not only censored by the government when they are writing about their bodies and sexuality, but are also criticized by other female and male bloggers. Yet, a series of posts by
various bloggers in April 2008 shows some unprecedented behavior by both Iranian male and female bloggers. Amir-Ebrahimi found that “some of the women bloggers were harshly attacked, but many took up their defenses, arguing that a blog is above all a private space where a blogger can write whatever they want” (Amir-Ebrahimi 2008, 105). The Weblogestan faced both positive and negative reaction to the topic of women writing freely about their bodies and sexuality.

In *The Laugh of the Medusa*, Helene Cixous discusses how women have been repressed through the control of their bodies throughout history. She suggests that if women are forced to remain in their existing body image as a result of male repression, then they can do one of two things. The first option is to remain trapped inside this image, thereby being responsible for their own passivity; the second option is to use the female body as a medium of communication, a tool through which women can speak. This is ironic given that the body, the very thing women have been defined by and trapped within, can now become a vehicle for transcending the boundaries formerly created. As Cixous states, a “woman must write herself: must write about women and bring women to writing. Woman must put herself into the text—as into the world and into history—by her own movement” (Cohen 1976, 875). She argues that women need to construct a whole new dialogue about their bodies by writing about them.

In the last few years, several studies, including Doostdar (2004), Amir-Ebrahimi (2006, 2008), Alavi (2005), and Khiabani and Serberny (2007), have analyzed the Iranian Weblogestan to study the different behavior of Iranian bloggers. Recently, in her third article about Weblogestan, Amir-Ebrahimi (2008) briefly mentions a series of posts by female bloggers published in April 2008, about their sexuality and bodies. This research examines thirty-eight of these posts in-depth to determine if women bloggers used this tool to speak about their bodies, their sexual desires, and intimate relationships in order to see if they challenged traditional Iranian social norms regarding “female decency.”

**Literature Review**

Since the launch of the first Persian blog in 2001, the impact of this new media has become obvious in a specific group of young Iranians. As a result, many social scientists have studied this phenomenon. There are two terms that need to be defined in this work. First, according to Doostar, the term *Weblogestan* defines the Persian equivalent of blogosphere. It is used to refer to the collectivity of weblogs on the Internet but often connotes specifically
the Persian-language blogging community (Doostar 2004). Second, the terms “blog” and “weblog” are used interchangeably by the author.

*Transgression in Narration: The Lives of Iranian Women in Cyberspace* by Masserat Amir-Ebrahimi was published in 2008. She argues that since the Islamic Revolution of 1979, Iranian society has been living under three major standards of law and culture: urf, sharia, and modernity. Each of these has its own rules for controlling women and their sexuality in the public and private sphere; whatever is required by sharia, and recommended by urf, is rejected by modernity. She argues that in the last two decades, transgression from urf and sharia became a sign of modernity and in a broader sense, a form of non-conformity to the Islamic regime. Amir-Ebrahimi writes that women bloggers actually practice transgression from these two by the narration in their blogs. The strategy of women in both spaces, virtual and physical, is the same: they seek to achieve visibility and to create new identities close to what Amir-Ebrahimi calls the “inner self.” The act of self-narration and self-disclosure in the Weblogestan challenges the discriminatory laws and the norms of submission and silence in this culture. Amir-Ebrahimi (2008) suggests that this transgression does not mean breaking the law, but crossing the red lines of urf that confine women behind walls and veils.

Amir-Ebrahimi argues that the most interesting aspect of the Weblogestan is people’s ordinary stories about their personal and private lives, which have been hidden from Iranian society. She notes that the virtual world provides a safer space for women to talk about their inner selves. From the first days of blogging, stories of the body and sexuality quickly attract many bloggers and readers. Some writers on these topics are harshly attacked by other bloggers or by their readers. Some of the attacked writers argue that a blog is their private space and that they can write whatever they want.

*Performance in Everyday Life and Rediscovery of the “Self” in Iranian Weblogs* (2007) is another article by Amir Ebrahimi published in the online magazine *Badjens.* In her article, the author claims that as a new form of public space in Iran, weblogs have found many meanings beside daily writings for Iranian youth and women in particular. They are using blogs as a process of identity formation and self-rediscovery as well as a way to create relationships.

Using Gofman’s theory of self and stages, Amir-Ebrahimi argues that the Internet, specifically weblogs, have become a key space for discovery of self, socialization, and the forming of relationships, and has become a space to discuss matters traditionally censored in Iranian society (matters like sexuality and non-marital sexual relationships). Bloggers create narratives of self in virtual space that can be totally different from who they are in the physical world. Amir-Ebrahimi argues, “the Internet and weblogs become a space
to define identities and unknown layer and/or produce the silenced and diverse multiplicity within individuals,” and suggests that this is one of the main reasons for the popularity of the Internet and the high use of weblogs among Iranian women and youth (Amir-Ebrahimi 2004, 4).

_The Politics of/ in Blogging in Iran_ by Gholam Khiabany and Annabelle Sreberry was published in the _Journal of Comparative Studies of South Asia, Africa and the Middle East_ in 2008. This article explores the Iranian blogosphere as a vital site of political discourse that extends the definition of the political into personal, gendered, and social realms. The authors historicize the rise of Iranian blogging and look at the emergence of weblogs in the context of the rapidly expanding Iranian communications industries. They categorized blogs by type and content and then analyzed specific sites by using variables such as public/private, the formal/informal, the individual/collective, and inside/outside Iran. Khiabany and Sreberry found that a large number of Iranian blogs have taken on the important role of offering a platform for discussion, debate, and dissent in a volatile and vibrant political environment. Although limited access to the Internet remains a crucial factor, there are other sides to the realities of the digital divide in Iran, not only in terms of usage, but also in relation to concerns, desire and aspirations. In summary, the Persian blogosphere is relevant in the context of the wider communications development in Iran.

_We are Iran_ by Nasrin Alavi (Skull Press 2005) is the first major book to focus exclusively on the Weblogestan. Weblogs are the author’s main source of reference and Alavi attempts to march through the dynamic and sparkling history of Iran in areas related to the subjects of the weblogs, such as the women’s movement, journalism, the Iran and Iraq War, and the media. Although she tries to bring the history of all of these issues together, Alavi recognizes that for a comprehensive and accurate analysis of today’s Iran, more in-depth studies are needed.

Alavi explores the worlds of Iranian bloggers and provides insights into their thoughts and feelings. She argues that they are not disconnected from the world. They care not only about their personal and Iran-related issues, but have a deep understanding of today’s world. Although she utilizes numerous weblogs, she does not state her criteria for selection of the blogs. She suggests that the Weblogestan or any virtual meeting place is the only realms that provide unique environments for Iranians to bypass many of the controlled social codes that are imposed by the Islamic state.

_The Vulgar Spirit of Blogging: On Language, Culture, and Power in Persian Weblogestan_ by Alireza Doostar was published through the Harvard Research Center of Middle Eastern Studies in 2006. This article is a study of Persian-
language weblogs, focusing on a divisive argument among Iranian bloggers that came to be known as the “vulgarity” debate. The debate centered around the claim that blogging had a “vulgar spirit” that made it easy for everything, from standards of writings to the principle of logical reasoning, to be undermined. Doostar’s study focuses on the linguistics side of the controversy.

*The Laugh of Medusa* by Helene Cixous, a pioneering French feminist, was first published in 1971 and is still considered to be a primary source on the subject of women and sexuality. Cixous explains that since women cannot feasibly come up with a new language, they must expose the mistakes that currently exist in the present one. However, even through attempts to expose current inadequacies, it will always be impossible to define a feminine practice of writing because this practice can never be theorized, enclosed, and coded.

By endowing Medusa with a voice, Cixous allows her to speak against the lies and falsehoods introduced by men in an attempt to scare women away from exploring their own power. The myth of the abyss was created when men made women believe that the questions surrounding the male-created myths were “too dark to be exportable…and we believed” (Cohen 876). By believing and therefore failing to question the validity of the myths, women allowed the male-created fear to continue. If women would look farther into the myths, they would discover there is nothing to fear, that there is no validity to what they have been told previously.

All of the literature studied points out the importance of continued research in the area of social life in cyberspace. Being relatively new fields of study, since weblogs were not introduced until 2001 in Iran, there is still much to be learned about different behavior in virtual and cyber spaces. This paper, for the first time, has reviewed a debate in the Weblogestan over female body image and sexuality that happened in April 2008.

**Method**

This study is qualitative in nature and relies on the use of a case study mythology, which brings an understanding to a specific issue or object and can expand experience or add strength to what is already known through previous research. As researcher Robert K. Yin states, case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships (2003).

Researchers have used the case study research method for many years across a variety of disciplines. Social scientists, in particular, have made wide use of this qualitative research method to examine contemporary and real-
life situations to provide the basis for the application of theories and an extension of methods. Yin defines the *case study research method* as an empirical inquiry that investigates a contemporary phenomenon within its real-life context: when the boundaries between phenomenon and context are not clearly evident, and in which multiple sources of evidence are used (2003). Critics of this method argue that the study of a small number of subjects cannot offer grounds for establishing reliability or generalizability. As a result, some scholars only accept case study research as an exploratory tool.

Since this research examines raw data using many interpretations in order to find linkages between the research object and the outcomes with reference to the original research questions, case study is the most suitable method. This research project studied 38 cases (blog posts) published in April 2008. All primary sources were originally Persian and were collected during April and May 2009. The data has been categorized based on two control variables: gender and residence. Since both men and women bloggers contributed to this topic, the researcher divided posts first based on gender and then looked at each gender group to find out the percentage of each group’s participation. Many Iranian bloggers live outside of Iran, which means they usually have more freedom to write under their real names and express their feelings more openly than those who live and write in Iran.

**Data Analysis**

From April 5, 2008 until April 23, 2008, thirty-eight bloggers contributed to the subject of female body image and sexuality. The data shows that 27 of the 38 bloggers were female and 11 were males. Twenty-eight of the thirty-eight blogs were written inside of Iran and ten were written outside of Iran.

**Discussion**

Writing about body image and sexuality is not new to the Weblogestan. As previously discussed, since they started blogging, female bloggers have used this medium to express their opinions about sex, their bodies and desires, but what makes this debate unique was the extension of the topic over many weblogs in a certain period of time. Two female bloggers (Hamkhabegi and Baloot) wrote about their expectations of their own bodies before sexual acts, and a male blogger’s (Natoor) response to their thoughts made the topic debatable.
On April 3, 2008 in a post entitled “A Feminine Project: Getting Ready for Sex,” Yek Zan wrote in her blog, Hamkhabegi:

*Unwanted hairs have kept my mind busy for a long time. As a woman, I feel really bad if I don’t shave two hours before sex. Many times I apologize to my partner that my legs are not shaved like foreign models...Each time before sex, I spend a minimum of 45 minutes taking a bath and rewash and re-shave my whole body. ..I spray [hair removal spray] some spot, which takes 10 minutes. I am very careful in shaving my vagina and it takes time. It would be lotion and cream time after these. Each spot of my body has its own cream. .. Then I pick a perfume for my ears, shoulders and breasts. Then I wear a light make up and pick one of my underwear which is suitable for my mood and the other person. Sometimes I try to manicure and pedicure in between which take time.*

Yek Zan goes on to explain that it is interesting for her to know how this process [of getting ready for sex] happens for men. She believes that in general it is different not only in the time they spend on it, but in the number of activities they have to do [to get ready for sex]. She states that she often cancels sex dates because she did not have time to get ready and she concludes that she respects her partners’ sex desires and thinks that mutual understanding helps women to not feel required to do all of these thing and they do not feel bad about their body because they have hair left over and are not wearing lotion all over their bodies.

This post was just the beginning of the debate. Baloot, another female blogger, answered by saying:

*It is not important for me not having any hair on my body when I am going to bed. I do not spend hours to get myself ready for a good part of my life. I never wanted to be like a porn star. From the first time I saw such a movie, I found that it is a male dominated industry. Men, who like the other parts of history, politics, sociology, and laws, this time by entertainment industry, tried to dictate their standard to women. The marble women of these movies are not real. I want to be real in my bed. My hairs are parts of my body. Why do I have to remove them?* (Baloot Blog, posted on April 5, 2008).
Similarly, blogger Natoor, in a post titled Puke, wrote:

*For the sake of your “dear partners” do not relate your concerns about your bottom part and your somersault in bed and your wool to intellectuality, feminism and women’s right movement and their fight with particular society which makes me puke* (Natoor Blog, posted on April 7, 2008).

In her reaction, Baloot wrote: “Actually these are the kind of arguments that need to be made. When the modern, intellectual woman still has issue with her body image, how can she talk about other rights? It is my first right to know where this unreal image of my body came from” (Baloot Blog, posted in April 9, 2008). It can be said that these three initial posts and Baloot’s reaction to Natoor’s “Puke” launched a debate across the Weblogestan.

Although Baloot still argues that women need to talk and write about this subject, she has also advocated for the privacy of a blog. She wrote: “I did not mean my bottom part’s hair, but if I did, it was not your business. It was my blog and if I want, I do write about my wool.” (Baloot Blog, posted in April 9, 2008).

Baloot’s reaction was later called “irrational” by other bloggers (Ali Yazdzad, April 23, 2008, in an e-mail to Ellize). A comment from her reader “A” however brought the argument back to its first point. “A” wrote: “Why don’t you have a problem with a woman who talks about her gentle body and her sex and you don’t think she is breaking taboos and you do not want to puke?” (The Baloot Blog, comment posted April 9, 2008). Baloot argues that people who are against the public presentation of female sexual acts and their bodies, are angered when they hear something against the mainstream presentation of female sexual desires, but they do not say anything when a woman reproduces the standard of beauty and what the society wants for women.

It is very important to mention the role of comments in these initial posts. Each of these posts has been linked to by many other bloggers and received comments (Hamakhabegi’s post received 31 comments and Baloot’s first post received 36 comments). The present research does not review comments in this study, but it is very important to understand that what drove this argument in the Weblogestan was not only these three bloggers, but numerous readers.

The discussion sparked out of these three initial posts can be categorized in three main categories: feminism and argument, morality and corruption argument (including religious arguments), and privacy arguments. What
follows is not a chronological study of these posts, but rather a study of argument categories identified in the posts.

Feminist Argument
Natoor agitated the Weblogestan with two issues that were continued by other bloggers. He argued that writing about sexuality and sex in general is private and the women need to keep their stories in their bedroom. He also pushed them not to relate these stories to feminism or as he said “Women’s Struggle Movement” (Natoor Blog, posted in April 7, 2008). Baloot’s response was that her blog is a private place where she can write whatever she wants, and she also argues that writing about these narratives from female perspectives is what feminism wants women to do.

Ellize, with two posts on this subject, directly answered Natoor and his argument of talking about the body and how (in Natoor’s argument) it does not relate to feminism and the women’s rights movement. She argues that having a female version of these narratives is not only related, but it is necessary to women’s struggle. Without such a perspective, Ellize argues, people will read or see only 50% of the story. She asks why are men afraid of hearing different versions of the story, especially when the storyteller is a woman. Ellize argues that they are afraid to find out that their satisfaction is not enough and that women want something different. So, based on her argument, when a woman starts to narrate her story, some men call her a whore or a slut and want to challenge and insult her. Ellize concluded that these male audiences never challenge Persian pornography on the Internet, but, when a serious, educated, feminist blogger tells her version of sex, which they are not expecting, these men feel uncomfortable (Ellize Blog, posted on April 11, 2008).

In her April 13, 2008, response, Afkar noted:

*Feminism, as far as I know, does not care if you sleep around nor if you stay virgin till your marriage. It doesn’t care if you shave all your body everyday nor if you be a ball of fur. The basis is of it is, women, be independent by ourselves.*

She argues that society’s norms have to change and that women need to alter their way of thinking to be satisfied by whoever they are and not change by society’s norms.

A blog called Raha starts the argument with a simple example of the daily abuse of women through name-calling. She argues that the opposition, especially from men, is because women are entering their territory, so men try to silence these women. As a result these men call women whores or
prostitutes because they found these names to be most offensive. She suggests that women, no matter what the reaction, need to continue writing about their sexual desires (Raha Blog, posted on April 15, 2008).

Sibil Tala injected some feminist theories and thoughts to the discussion. Referring to “Afkar,” she argues that her reading of feminism [it is important for feminism that all women be independent] is dangerous, because like other -isms, feminism dictates its own violence based on culture, race, social class, geopolitics, religion, and gender. Yet, Sibil Tala still refers to herself as a feminist since “feminism, through history means rethinking for making new knowledge” (Sibil Tala Blog, posted on April 17, 2008). Referring to a death threat a blogger received a few years ago after she wrote about masturbation, Sibi Tala argues:

\[\text{What is that important about a woman masturbating? Isn’t it true that women always masturbate? So writing about masturbating was the issue not the masturb器} \text{iting itself. The issue was a women writing about masturb器} \text{ating that takes her down from the heaven to dark down} \text{(Sibil Tala Blog, posted on April 17, 2008).}\]

Donya-e Majazi opposed this kind of argument about sexuality and feminism. He believes that breaking a taboo is not an art and there are certain taboos that are needed for a society. He argues that writing about sexuality and female genitalia does not help to improve society. He wrote: “If you are looking for equality, men are more aggressive and they can write more and much better, so by continuing this way, [women] would hardly defeat” (Donya-e Majazi Blog, posted on April 19, 2008). He argues that people like Sibil Tala should not call themselves feminists since there are many men who are more feminist than them. He wants men to follow up with the “feminism issue” and, after assuring the way [to the equality] is an easy walk, he suggests then that women can follow them.

Yek Zan, in her second post, also makes the same argument that Ellize made to show how some men are against these kinds of writings by women when they are never against similar male writing:

\[\text{All these fights are over a topic that there is lot of male versions of it is out there. I, personally, find a lot in this fight and I am happy that this patriarchal mind has been challenged since it is a feminist duty to criticize patriarchy and challenge the power relations it makes in the society (Hamkhabegi Blog, posted on April 16, 2008).}\]
Privacy (Public and Private)
After Natoor’s post asking women not to bring their personal stories of their bedroom to the public and Baloot’s personal space response, the subject of the privacy of a blog took the attention of many bloggers.

The Shoor o Shar blog brings another feminist perspective to the argument by saying that the public versus private space is an old argument among feminists, and they believe that the personal is political. She believes that posing an issue as a public issue makes it possible to talk about it and find a solution. Most women’s issues are related to their private space, but it is essential to bring them to the public to find a solution to the problem of gender inequality. Like Sibil Tala, Shoor o Shar objectified “white feminism,” which makes many women into “modern Cinderellas” even if they are working and earning academic degrees (Shoor o Sha’r Blog, posted on April 17, 2008).

The Chel Tikeh blog argues that in developed countries, if someone does not have sex until their twenties, she or he would be sent to a psychiatrist, since [in those countries] sex is considered a life necessity. She also mentions that she does not personally like to write about her own intimate relationships, but admires those who do. “If [reading] these [posts] does have a conflict of interest with your beliefs or ideas, just don’t read them, but be sure that [reading those posts] won’t make any problems” (Chel Tikeh Blog, posted on April 15, 2008).

Males are not the only ones dissenting about female sexual narratives. Two female bloggers also showed oppositions. Safhe 13 asks: “Would you explain all these experiences to your male relatives? Would you think your intellectualism directly relates to talking about your most private moments? Would you live in a glass bedroom? Would you think in a sick society like ours, is it possible to write such memories for people who know your real name and identity? Has private space defined for you at all?” (Safhe 13 blog, posted on April 9, 2008). She did not answer any of these questions, but is questioning writing of such memories and experiences.

The Bar Saheleh Salamat blog argues that the main problem of women [in Iran] is the lack of private space, and by opening such a topic (personal sexual experiences) to the public they (women) destroy what little privacy that does exist. She believes that there are other ways to find feminine identity and that writing about sexuality is the last way. Bar Saheleh Salamat argues that when women write about their bedrooms and their sexuality, they actually reproduce what men want them to be in the bedroom. She believes that there are more important issues facing Iranian women rather than sexual narratives.
She argues that people who write on this topic need to look at the culture and religiosity of Iranians:

*Where are we going by this kind of intellectualism? Each society has its own conditions. Even if we believe in a theory or a movement, we won’t be successful until we change it towards the mainstream of the society* (Bar Sahel-e Salamat Blog, posted on April 21, 2008).

Immorality and Corruption
The author of the Zahra HB blog centered her argument around religion and norms of the society, *urf, when adding to the debate. She, who identified herself as a “religious girl,” on a post entitled “Weblogestan—e bi din o imon” (non religious and non faithful Weblogestan) wrote:

*This is not important for me what are you doing, but I am getting frustrated when I hear your bedroom stories. This is your private space and you have to keep it private. Now you are writing about it. So what? What do you want to prove? You want to say that you are intellectual or feminist or matriarchal? Do you want to prove your equality with men in this way?* (Zahra HB blog, posted on April 13, 2008).

Zahra HB writes that she feels sorry that all of this “corruption” is happening within an Islamic society that is supposed to go toward nonmaterial values. Then she asked readers if there is anyone who thinks like her and gets upset when she or he is reading about “rabete jensi ba namahram” (sexual relations out of marriage). She received two hundred sixty-one comments from both sides of the argument, but mostly from those who rejected her ideas. These objections prompted another post from her two days later that clarified her positions on religion and sexual narrations.

This second Zahra HB post divided her argument into two parts: feminism and religion. First, she asked feminist bloggers why they did not talk about more important things like arresting a women’s rights activist or the nature of some of the awards that foreign groups and organizations have given to the Iranian women’s movement (such as the National Endowment of Democracy, which awarded some Iranian women who were working on various nongovernmental organizations (NGOs). She concluded that there are many more important things for Iranian feminists to concentrate on, and writing about sex is only taking the easiest way and reflects their attempts to follow men’s steps in pornography. The second part of argument focused on the religious belief that premarital sex is an unforgivable sin. She argued that
people who think they are free to write about their private life in their private blog “do not live in a jungle” (Zahra HB Blog, posted on April 15, 2008).

Another blog, Khanoom Shin, brings another concern to the discussion. As a mother, she thinks that these blogs are dangerous for a (female) teenager who is sitting in front of her computer and looking for a reason to give up (her virginity). She believes this kind of writing destroys the honor of families and destroys the chastity of young people. She writes: “Sexual relationships are beautiful and respectful, but not for a teenager. Early experiences won’t help our teenagers....Let women not write, not because they cannot, but because they should not prompt corruption” (Khanoom Shin Blog, posted on April 15, 2008).

Her argument was immediately answered by one of the young bloggers, or as Khanoom Shin called them “teenagers who are sitting in front of their computers, looking for sexual topics” (Khanoom Shin Blog, posted on April 15, 2008). Dokhtar-e Khorshid wrote: “I am 17...since I was 14, I knew all details about sexual relationships... The first time I found about it, I decided to not get married ever. But this feeling of ‘dirty relation’ did not take that much. I justified myself that the pain I see is just part of it” (Dokhtar-e Khorshid Blog, posted on April 18, 2008). Talking about her masturbation, Dokhtar-e Khorshid explains the guilt she felt when she was younger due to her lack of knowledge. But she clearly defended female narratives of sex or even pornography:

> But among all these, feminine narratives of sex are important for a teenager girl like me who found our sexual needs and know about sexual acts, to know that sex is not only about painful stories of men wanting to conquer a woman...these kinds of writings don’t describe sexual acts and I don’t want to masturbate after reading them. But teach me not to fear and if I have this need, it is natural (Dokhtar-e Khorshid Blog, posted on April 18, 2008).

Talkh Mesle Asal blog, answering Khanoom Shin’s argument about vulgarity, wrote:

> It is like the Islamic Republic’s philosophy who wants to take every one to heaven by force...our teenagers need to know this information and, by the way, they can get whatever they want from thousand other sources not our blogs (Talkh Mesl-e Asal Blog, posted on April 20, 2008).

After her first challenging post, Yek Zan wrote another post regarding female narratives of sex in general (not her own story) and she tries to answer two
other bloggers, Khanoom Shin and Zahra. She challenged Khanoom Shin’s arguments about teenagers’ information about sex. In her point of view, sixteen year-old teenagers now know a lot more than women like Khanoom Shin knew in their day. Today, teens are involved with many aspects of sex, like desire and contraception. She argues:

Women must talk freely about sex, so that sixteen years old be above those 62.8% of women who never experience orgasm and I call that national catastrophe...if you are that much concern about family foundation, now can you ignore the reason for 50% of divorce [which is not having happy sex life] (Hamkhabegi Blog, posted on April 16, 2008).

The Farenhite 1979 blog gave advice to women who, like her, are “living in Islamic Iran” (Farenhite Blog, posted on April 16, 2008). She says: “dear brother, if you think it is OK, let your sister read these.” Then she asked women not to trust men in any condition, ever talk about their previous sexual relationships, start sleeping around after marriage, lend more than half of their savings to any man, and asks women to stay virgins if they want to find a husband in Iran. Then she answered those who are against women’s public writing of sexuality because of the corruption it has: “You say it is misleading? Do you think it would be vulgar if your wife or your girlfriend read these and learned how to pleased herself and give you pleasure?” (Farenhite Blog, posted on April 16, 2008).

The author of Shaparkaa, who introduced herself as a married woman living inside Iran, indicated that she never heard [from women around her] that a woman could have sexual pleasure. She notes that in the urf she knows, “it’s a woman’s duty to sexually satisfy her husband” and the relationship out of marriage is an unforgivable sin for women, not for men (Shaparakha Blog, posted on April 14, 2008). Her post does not mention anything about her own sexual relationships or sexual pleasure. And in the end, she reminds readers that love is the only bond that can keep a man and a woman together.

A blog named “Letters to My Former Self” makes the argument that it is necessary to have sex and did not touch the issue of narratives. About whether women should write about their experiences or not, the Letters to My Former Self blogger wants women to have sex before marriage to please their husband better:
These women [who never had sex before marriage] don’t tell their husband what they like in sex; what kind of love making they want, and they even feel shamed to ask for sex if they want it. ...They turn to a robot who only do home chores and wait for their men to sleep with them (Letters to my Former Self Blog, posted on April 16, 2008).

**CONCLUSION**

Blogging, due to its nature, has the capacity to split off into different debates. In this case, the debate over what women write about created multiple layers of structure, arguments, and explanations. The three main arguments that shaped this debate were the private nature of a blog that was published publicly, morality of sexual narratives, and the different aspects of feminism and women’s struggle for change.

Although this virtual discussion continued in the Weblogestan for about a month, and some taboos were challenged, women were more criticized by other women than by men for promoting this issue in the public sphere. The majority of women preferred to stay silent and respected determined social norms prohibiting the description of sexual acts and their desires in a sexual relationship. From those who wrote, many tried to convince others with logic about whether writing or not writing about the subject is appropriate. Support for sexual narratives was lost and those women who encouraged premarital sex for women wanted them to have the skills to be good wives for their future husbands and none focused on female pleasure, which suggests a modern movement toward traditional values of sexual pleasure for men.

It is also interesting to study the Weblogestan reaction based on gender and residence of the author. Although not many male bloggers participated in this debate, those who did objectified privacy and relating this kind of writing to feminism. Bloggers from outside Iran were more in favor of this topic and they less objectified the morality, religious, and privacy argument.

It is important to be aware that the Weblogestan is not a sample population of the whole Iranian society inside and outside Iran. Of the large number of those who blog, only a few participated in this particular debate. Cyberspace is not a completely free space in regard to censorship. Not only governments, but bloggers also censor themselves and each other in many ways. The Weblogestan has a very limited impact in the people’s daily life inside Iran, since this medium still belongs to the middle and upper educated population in Iran, not the grassroots lower and working classes. For those who write and read on the Weblogestan, it gives a new window of new experience.
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How Stereotypes of African-American Women in Oscar-Winning Film Roles Have Changed from 1939 to 2006

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Abstract

Receiving the movie industry’s highest honor, the Oscar, comes with the gifts of fame and recognition. African-American female Oscar winners also receive a special gift: awareness of their unique and sometimes controversial place in history, culture, and society. Since 1939, four African-American women have won the Oscar. This study examines their winning roles and the evolution of racial stereotypes within these celebrated films.

African-American actresses work in a society where stereotypes are prevalent, enduring, and exist both on and off the movie screen. A stereotype is defined as “unreliable, exaggerated generalizations about all members of a group that do not take individual differences into account” (Schaefer 2008). D.W. Griffith’s Birth of a Nation (1915) is the first full-length feature film that presented unrealistic and critical stereotypes of African-Americans to the general public. Bogle (1996) argued that it was well-received by white audiences by stating:

This extraordinary, multidimensional movie was also the first feature film to deal with a black theme…Griffith presented all the types with such force and power that his film touched off a wave of controversy and was denounced as the most slanderous anti-Negro movie ever released (9).

Although it was not the first film to portray African-American stereotypes, it was certainly the longest and most widely viewed, and those three hours are among the longest in African-American film history.

This research seeks to contribute to the body of knowledge and extend prior research with new theories and analysis about stereotypes of African-American women in film, with specific focus on African-American women who have won Oscars. A vast amount of research in the field of black stereotypes in film was conducted by Donald Bogle, and as such he is an integral part of the foundation of this current research. The research is guided by the following questions: What stereotypes of African-American women existed in films? Which stereotypes are present today? How have these stereotypes changed in Oscar-winning movie roles from 1939 to 2006?
African-American women have been starring in films since early in the 20th century and have navigated all types of roles. They have played the “Mammy” character, the sexual creature, the welfare mother, the strong, matriarchal, African-American woman and many more in between. The purpose of this research is to review and analyze the four roles (Hattie McDaniel for *Gone with the Wind* in 1939, Whoopi Goldberg for *Ghost* in 1990, Halle Berry for *Monster’s Ball* in 2002, and Jennifer Hudson for *Dreamgirls* in 2006), that resulted in an African-American woman’s Oscar win and to understand how the roles have changed. The academy’s highest acting honor has historically gone to only four African-American women, three of them (Hattie McDaniel, Whoopi Goldberg, and Jennifer Hudson) have won for Best Actress in a Supporting Role and one of them (Halle Berry) won for Best Actress in a Leading Role. Hattie McDaniel has the distinction of being the first African-American to win an Oscar, male or female. She won for her portrayal of Mammy in the film *Gone with the Wind* (1939). Her commitment to her roles throughout her career, all while being limited to playing the maid, Mammy, or sexual deviant, is remarkable given the time period she lived in and its societal limitations.

More than 50 years later, Whoopi Goldberg was the next African-American woman to win an Oscar; she won it for her role in *Ghost* (1990). Prior to Goldberg’s victory she had been nominated for the Best Actress in a Leading Role Oscar for her portrayal of Celie in *The Color Purple* (1985). She is the only African-American actress to be nominated for Oscars in the two categories of Best Actress in a Leading Role and Best Actress in a Supporting Role. During this 50-year time period, numerous films were released that introduced new genres of films depicting blacks. The 1960s was the era of integration where African-American men became leading men (i.e., Sidney Poitier). The 1970s was the decade when African-American men and women were exploited in what are called “Blaxploitation” films, and the early 1980s began an era of African-Americans becoming prominent directors, producers, and writers (Bogle 1996). Whoopi Goldberg won her Oscar in 1990; it was more than ten years later when Halle Berry won hers in 2001.

Halle Berry too made history when she became the first African-American woman to win an Oscar for Best Actress in a Leading Role. This is significant because only seven African-American women have been nominated for Best Actress in a Leading Role in the 81 year history of the Oscars, beginning with Dorothy Dandridge’s nomination in 1954. Halle Berry had been acting for more than 10 years when she won her Oscar. She played a number of roles prior to her role as Leticia in *Monster’s Ball*, including *Introducing Dorothy Dandridge* (1998) where she earned her Emmy and Golden Globe awards for playing the title character.
Jennifer Hudson was the fourth and most recent African-American actress to win an Oscar. She won the Oscar for Best Actress in a Supporting Role for her portrayal of Effie White in Dreamgirls (2006). Unlike McDaniel, Goldberg, and Berry, Hudson was not well-known or an experienced film actress at the time of her win. She was best known for having competed on the reality TV show American Idol in 2004, but was eliminated. For her debut role in Dreamgirls, she went on to win three of the top awards in the acting industry that year: an Oscar for Best Supporting Actress, a Golden Globe, and a Screen Actors Guild Award.

**Purpose Statement**

The purpose of this research is to analyze the characters played by the actresses Hattie McDaniel, Whoopi Goldberg, Halle Berry, and Jennifer Hudson in their Oscar-winning roles. This research seeks to define what stereotypes are present in these roles and how those stereotypes have changed over time. Prior research has dictated the definitions of these stereotypes, but this research seeks to extend that research and understand the evolution of the stereotypes within the context of these films. In 81 years and across dozens of other roles portrayed by African-American women, the Academy of Motion Pictures, Arts, and Sciences has only awarded four Oscars to African-American women, even though a total of 20 African-American have been nominated for Oscars. The four historical wins came in the 20th and 21st centuries, and each showed some form or variation of the following stereotypes: the Sapphire, the Jezebel, the Mammy, and the Tragic Mulatta. These stereotypes will be defined and analyzed in the next section. The four identified films will be compared to one another and analyzed to see what stereotypes and perceptions have remained unchanged in Hollywood. The historical roots of these stereotypes may help to explain how these stereotypes have persisted into the 21st century and continue to paint an inaccurate picture of African-American women’s intelligence, attitudes, and sexuality. For the purposes of this research, the terms “African-American” and “black” are used interchangeably to refer to the group of individuals of African, non-Hispanic descent.

**Literature Review**

This literature review will cover the historical journey of African-American female stereotypes in film. The stereotypes portrayed in films have a long history and instead of diminishing with time, they seem to adapt with the changing times. Identified stereotyped will be defined to help understand the context of their usage in this research. This review will also examine the
Oscar-winning roles of Hattie McDaniel, Whoopi Goldberg, Halle Berry, and Jennifer Hudson as Oscar-winning roles for African-American women have gone through many changes since Hattie McDaniel’s historical Oscar win for her role in *Gone with the Wind* (1939).

**Stereotypes of African-American Women**

Charisse Jones and Dr. Kumea Shorter-Gooden conducted the largest, most comprehensive study of black women in America and their experiences in *The African-American Women’s Voices Project* (Jones and Shorter-Gooden 2004). They spoke to the experience of African-American women and a phenomenon known as *shifting*, which refers to one’s ability to “shift to accommodate differences in class as well as gender and ethnicity from one moment to the next” (Jones and Shorter-Gooden, 2004). Their research focuses on an area that is largely unexplored and undocumented. Shifting generally occurs for women outside of their home in places where they can come in contact with someone who may perceive or assume them to be a certain way. The researchers state:

> While most people of color, and African-Americans in particular, are perceived through a distorted lens, black women are routinely defined by a specific set of grotesque caricatures that are reductive, inaccurate, and unfair. bell hooks of the City College of New York enumerates that these ‘gendered stereotypes’ that include the emasculating Sapphire, the desexualized Mammy, and the scheming temptress Jezebel (Jones and Gooden 2004, 3). When viewed in this manner, African-American women’s options have been limited to these very small, specifically designed labels of womanhood. It can be difficult for a woman to find her own true self given these distorted images found in television, films, magazines, and music. Shifting affects black women in more than just daily life; it can be a hindrance to their self-image, attitude, and health over the long term (Jones and Shorter-Gooden 2004).

**The Sapphire**

The Sapphire stereotype is relatable for black women off-screen because even though parts of it are viewed negatively, not all black women view it that way. Jones and Shorter-Gooden state that, “Sapphire is harsh, loud, uncouth, usually making the other characters seem more professional, more charming, more polished by contrast. She is a twisted take on the myth that black women are invulnerable and indefatigable, that they always persevere and endure against great odds without being negatively affected” (2004). This interpretation is problematic because in film the Sapphire is shown to the white audience and may be perceived to be a chosen way of life for black
women, but given its distorted takes on reality it is not accurate. The Sapphire was created in the 1950s radio-turned-television-show *Amos ’n’ Andy* (1951) where Ernestine Wade played a character by the name of Sapphire (Show History of Amos ‘N’ Andy, n.d.). Historically, the image of the Sapphire has been that of an emasculating woman. She is a no-nonsense and bossy woman who takes charge over those around her. Within that context, she is an on-screen image who repeatedly appears in the films and is easily identifiable. She is not physically described to look a particular way, instead she is characterized in her actions and behavior.

**The Jezebel**

The *Jezebel* is seen as a scheming and wicked woman. She chases after men and is viewed to be sexually immoral. She is a distorted image taken from the pre-Civil War times of the slave women and how they were viewed by their white oppressors (Pilgrim 2002). Much of their appearance in slave times was connected to their method of trying to survive in an unfamiliar climate and being treated harshly. This image is one that has been around for centuries and stems from the female slaves’ sensuality and sexuality as defined by slave owners of that time (Pilgrim, 2002). The Jezebel stereotype is not specific to any particular race as it has been around since biblical times. It generally applies to whomever fits the definition. There is a belief that the Jezebel combines the Tragic Mulatta (defined later in this section) and sensuality but for the purposes of the current research, it is defined and pertains specifically to African-American women. Pilgrim’s description of the term as defined here is the most easily identifiable in the films reviewed, and so it is used for this current research.

**Bogle on Stereotypes in Film**

The stereotypes portrayed in film have a broad audience and show certain perceptions of African-American women. The foremost expert in the field of the portrayal of African-Americans in film is Donald Bogle. His book, *Toms, Coon, Mulattoes, Mammies, and Bucks* (1973) helps to examine what stereotypes are present in films. His observations help the researcher understand stereotypes in many films with particular attention paid to the following Oscar-winning films: *Gone with the Wind* (1939), *Ghost* (1990), *Monster’s Ball* (2002) and *Dreamgirls* (2006). In his book, Bogle briefly discusses *Gone with the Wind* (1939), *Ghost* (1990), *Monster’s Ball* (2001) and the Mammy, Tragic Mulatta, and Sapphire stereotypes that he observed in those films. Bogle speaks extensively about the origins of stereotypes in films and about one of the first films that brought many of them to white audiences: *Birth of a Nation* (1915).
Oscar-winning films receive a lot of attention and are seen by millions of people, so after a film wins, it is important to analyze the characters being portrayed in the film. Bogle believes that there were five major stereotypes present in cinema in the 20th century: the Tom, Coon, Buck, Mulatta, and Mammy. Three of the stereotypes (Tom, Coon, and Buck) apply to African-American males; however, for the purposes of this research the Mammy and Mulatta stereotypes that apply to African-American women will be explored and discussed.

The Mammy

Mammy was a strong stereotype first seen in the early 20th century, and was portrayed as a happy and jolly character. According to Bogle (2003), “Mammy…, is so closely related to the comic coons that she is usually relegated to their ranks. Mammy is distinguished, however, by her sex and fierce independence. She is usually big, fat, and cantankerous. She made her debut around 1914 when audiences were treated to a blackface version of Lysistrata” (9). The Mammy was a staple in films and made most famous by three actresses: Hattie McDaniel, Ethel Waters, and Louise Beavers, the most famous of them being Hattie McDaniel. Hattie McDaniel won an Oscar for Best Actress in a Supporting Role for her role in Gone with the Wind (1939) and revolutionized what it meant to play the Mammy character. Prior to McDaniel’s portrayal, the Mammy had been viewed as content in her role and was given no personality. McDaniel’s scene-stealing Mammy oozed with personality and definitely modified her given parameters.

Historically, the image of the Mammy or how it later came to be defined made its appearance in early Civil War writings. She was essentially viewed to be what Southern white slave owners created to appease their consciences and show that slaves were not unhappy. As explained by Pilgrim (2000), “Her wide grin, hearty laughter, and loyal servitude were offered as evidence of the supposed humanity of the institution of slavery” (Pilgrim 2000). If she looked happy and well-fed then the underlying message was that slavery must not be all that bad. In actuality, there is not much historical evidence to support this image and whether it truly existed. House slaves were often not well-fed and physically did not look the way the Mammy is portrayed. The Mammy character was a caretaker who was seen as asexual and unattractive. Her loyalty to her slave-owner’s family and the responsibility she had in raising his children were key elements in her portrayal, making her a nurturing figure as well.

The Tragic Mulatta

The Tragic Mulatta was another strong image that came about during the time the Mammy character was popularized. As Bogle explained:
The third figure of the black pantheon and the one that proved itself the moviemaker’s darling is the Tragic Mulatta... Usually the mulatto is made likeable—even sympathetic (because of her white blood, no doubt)—and the audience believes that the girl’s life could have been productive and happy had she not been a ‘victim’ of divided racial inheritance (9).

Essentially, the Tragic Mulatta was the complete opposite of the Mammy: delicate, fair-skinned, and the victim. However, the Tragic Mulatta, although seen as the victim and separate from the Mammy, more closely resembles what a house slave looked like than the Mammy did. There is more evidence to support the statement that a house slave resembled the Tragic Mulatta more than the Mammy (Pilgrim, 2000). A famous actress in the 1920s known for playing the Tragic Mulatta was Nina Mae McKinney. At the young age of seventeen she landed a starring role in the black-produced musical Hallelujah (1929). Within the context of this research, the Tragic Mulatta is one of the more physically recognizable stereotypes viewed in the films and also one of the most seldom seen.

Oscar-winning Roles for African-American Women
The four films discussed here all featured African-American actresses who won Oscars for their roles in the films.

*Gone with the Wind* (1939)
Hattie McDaniel set the standard for her portrayal of Mammy in *Gone with the Wind* (1939). She made history by becoming the first African-American to win an Oscar, a feat that would not be duplicated by another African-American actor until Sidney Poitier became the first African-American male to win an Oscar in 1965. Ms. McDaniel would be the only Oscar-winning African-American woman for more than 50 years until Whoopi Goldberg reached the same success in 1990 with her film *Ghost*. Hattie McDaniel played a role written to fit the stereotypical depiction of the Mammy. She was physically seen as de-sexualized, jolly, fiercely independent, and loyal to her master and his family. McDaniel’s portrayal set a new standard for portraying this stereotypical role. She was confident, strong-willed, outspoken, assertive, and efficient, all while playing a stereotype created to appease white guilt after the end of slavery. Historically, the Mammy, who was representative of a house slave, was not created until after the Civil War (Pilgrim 2000). The image of the Mammy was meant to portray a happy slave who is proud to serve her master and his family.
Ghost (1990)
The film *Ghost* is about a man (played by actor Patrick Swayze) who is murdered and becomes a ghost to solve his murder and help keep his fiancée safe. Whoopi Goldberg received an Oscar for Best Actress in a Supporting Role for *Ghost* (1990). In the film, Whoopi Goldberg played the character of Oda Mae Brown, a con-artist who pretends to possess psychic powers, only to discover that she really does have supernatural abilities. Whoopi Goldberg’s portrayal includes the Mammy and Sapphire stereotypes, and is unlike any of the others analyzed in this literature review.

Oda Mae starts the film as a con-artist who has a criminal record. She comes to know the ghost of Patrick Swayze but does not want to help him. This immediately sets her apart from the traditional Mammy role because Oda Mae is visually leery of helping Swayze’s character and wants no part of it. She is completely against the idea of helping a ghost and repeatedly tries to ignore Swayze’s character. However, because of his persistence and refusal to leave her alone, Oda Mae eventually agrees to help him and becomes committed to his cause. She displays the loyalty that Mammy’s possess and even goes as far as putting her life on the line for Swayze’s character’s fiancé (played by Demi Moore). She portrayed the role of the Mammy with strength and an independent streak, but again she was not labeled that way to begin with because she transitioned into that role during the film. In her role, Goldberg fits the Sapphire stereotype based on her loud mouth and uncouth behaviors. There are scenes where she is depicted in such a manner that it makes all of her counterparts look better than she does. Those scenes are shot to downplay her own attitude and abilities in order to smoothly handle a bank transaction. A more detailed analysis can be found in the Results and Discussion section.

Monster’s Ball (2001)
Halle Berry’s portrayal of Leticia Musgrove in *Monster’s Ball* is one that embodied the characteristics of the stereotypical Tragic Mulatta. In this role, Berry became the first African-American to win an Oscar for Best Actress in a Leading Role. Leticia is largely a combination of the Tragic Mulatta and Jezebel stereotypes. The film is about a woman (Berry) whose husband is in prison on death row, and a correctional officer (Billy Bob Thornton) who is an employee of executing crew that will preside over her husband’s execution. Berry and Thornton’s characters come into each others life through a tragic and unique bond. She is a victim of her circumstance and dependent on those around her to get out of her situation. Her character says at one point in the film, “I’ve been coming here eleven years and I’m tired.” In that way, she is The Tragic Mulatta, and appears to be helpless. The film does not do
a lot to support how she came to be in her current situation, nor how she intends to get out of it, only that she is restless with it. She shamelessly gives herself to Billy Bob Thornton’s character and allows him control in their sexual interaction. In this way she is the Jezebel, not only did she initiate their sexual encounter, but she willingly submitted herself to what he wanted and gave no resistance. The Tragic Mulatta is a helpful character and the Jezebel is an empowered character, and Berry’s character is a combination of contradictions but more so fits the Jezebel stereotype than any other. There are other aspects to her character that could be likened to the Sapphire. For example, her dominating control over her son could be viewed in that way, but in some ways he is just ill-treated by her. There is a scene in the film when she is fired by her employer that show signs of her having Sapphire-like tendencies as she talks back to him and voices her dislike at being fired.

*Dreamgirls (2006)*

Jennifer Hudson’s character, Effie White, is the most multi-layered of all the characters seen in the films examined for this study. Effie is a combination of the Mammy, Sapphire, and Jezebel stereotypes. Effie, like Oda Mae Brown, is not your typical Mammy, and initially is not obliged to serve anyone, rather Effie is viewed as the least attractive and the heaviest of her singing group. Effie is very much the Sapphire stereotype because she is a very no-nonsense, straight-to-the-point, and assertive woman. She has a fiery, outspoken personality and attitude to match. For much of the film, she is a strong presence on-screen and commands the attention of the audience and those around her. She has a boyfriend in the film who she is very comfortable with until their relationship begins to change. His role as her manager begins to grow more powerful, and he begins to make executive decisions, one of which included demoting her from lead singer to back-up singer. Her strong personality and presence made this a hard transition for her and her jealousy and erratic behavior eventually lead to her dismissal from the group.

The final stereotype Effie represented was that of the Jezebel. She is not completely sexualized in the usual manner of the Jezebel stereotype, but she does exhibit the characteristics of pursuing a man and being sexual.

**Methodology**

The researcher employed qualitative research methods to understand and analyze the topic for this research study. Through various texts, articles, and films, the researcher was able to gain an in-depth understanding of the portrayal of African-Americans in films. The perspectives used to interpret the data included the racial and ethnic stereotypes of the Mammy, Tragic Mulatta, Sapphire, and Jezebel characters. The researcher was able to
conclude that two stereotypes, the Mammy and Tragic Mulatta, have been shown on-screen for more than 90 years.

The researcher selected the four aforementioned films because they met the following requirements. First and most importantly, each had an African-American female actress awarded an Oscar for her role in the chosen film. The next criterion was identifying and defining what stereotypes were physically visible in the characters and which were intrinsically observed in the characters’ actions. Each of the films had success at the box office, which equates to large viewership and, perhaps, the power of enduring stereotypes in America.

This paper reflects the researcher’s analysis of two important books: *Toms, Coons, Mulattoes, Mammies, and Bucks* (Bogle 1973) and *Shifting: The Double Lives of Black Women in America* (Charisse Jones and Kumea Shorter-Gooden 2004). By reading and analyzing the works of Bogle, this researcher was able to ascertain which stereotypes were most dominant in the films analyzed and which stereotypes wavered over time. Pilgrim’s articles (2000, 2002) further supported the current definitions of the stereotypes, the Mammy and Tragic Mulatta. The text *Shifting: The Double Lives of Black Women in America* (2004), gave another perspective to understanding African-American women’s experiences that was applied in the present research.

**RESULTS AND DISCUSSION**

As discussed earlier in this paper, the researcher reviewed and analyzed four films in which African-American actresses won an Oscar (*Gone with the Wind* (1939), *Ghost* (1990), *Monster’s Ball* (2001), and *Dreamgirls* (2006)). Each was analyzed to understand what stereotypes of African-American women were present in the films, how the stereotypes have changed over time, and which stereotypes were most prevalent. Each of the films contain one or more of the stereotypes identified and defined separately by Bogle (1973), Pilgrim (2002, 2002), and Jones and Shorter-Gooden (2004). During review of the films, it became clear to the researcher that stereotypes could be physically embodied as well as definitively represented. This means that a character can look the way a stereotype is described but not act in the way the stereotype is defined or act the way a stereotype is defined but not look that way.

*Gone with the Wind* (1930) saw Hattie McDaniel’s portrayal of the Mammy combine elements of the Mammy stereotype with that of the Sapphire stereotype. McDaniel definitively embodied the physical characteristics of the Mammy and the action-oriented elements as well. She behaved in the manner befitting to a Mammy character as defined by Bogle (1973); however, she had an edge to her character that touches on elements of the Sapphire.
By observing this film and understanding the combination of the two stereotypes, the researcher understood that the first and oldest of the four films analyzed brought about new viewpoints for analyzing the remaining three films.

_Ghost_ (1990) depicted a character who combined the Mammy and Sapphire stereotypes. Whoopi Goldberg’s character embodied the defined aspects of the Mammy in that she was loyal and committed to doing the bidding of Swayze’s ghost. However, Whoopi Goldberg’s Oda Mae Brown was not the typical submissive and obedient Mammy. Oda Mae was quite resistant to helping Swayze’s ghost and wanted no part of the situation. He pestered and hounded her to the point of her finally agreeing to help him. However, even after agreeing, she was not happy to do it and would just as soon end her involvement. Her agreement, however, and eventual unyielding loyalty does characterize Oda Mae as the Mammy. She was dressed and portrayed as an asexual character not to be viewed in a sensual or attractive manner. In every other way Goldberg’s character can be viewed as the Sapphire stereotype. She was loud, unruly at times, and in particular scenes strategically placed to make those around her look better and more refined. She also was quick-witted and had no shame in or problem with getting smart with someone. In this assessment Oda Mae Brown was just another Mammy/Sapphire combination. What sets Oda Mae’s Mammy/Sapphire combination apart is her on-screen experience that reflects the same experience African-American women experience in society known as “shifting,” illustrated in the following example. At a point in the film, Oda Mae Brown needs to dress up and downplay certain parts of her personality in order to withdraw some money from a bank. She purposefully quiets down so as not to offend the bankers assisting her and she tries to be as inconspicuous as possible in the scene. In doing so, she successfully completes the task at hand, withdraws the money and is able to leave the bank without a problem. This depiction of the phenomenon of shifting bridges an off-screen experience to an on-screen depiction and marks a change between the way the stereotypes evolved between the making of the films _Gone with the Wind_ (1939) and _Ghost_ (1990).

_Monster’s Ball_ (2001) saw Halle Berry’s Leticia Hargrove as the Tragic Mulatta and Jezebel. She was very much viewed as a victim of her circumstance. She physically portrays the Tragic Mulatta, appearing to be light-skinned and pitiful. However, her portrayal of the Jezebel is the main stereotype depicted in the movie. It is shot in a highly sexualized and deeply sensual manner showing Leticia as a sexual creature. Although for much of the film her actions and physical representation are that of the Tragic Mulatta, in the climatic part of the film she is suddenly thrown head-first into the definitive Jezebel role. She offers herself to a man and sexually pursues him to get what
she wants, and asks him “...to make me feel good”. When this scene occurs, Berry’s character becomes the physical and action-oriented representation of the Jezebel, and this makes her character a hybrid of the Tragic Mulatta and Jezebel stereotypes.

*Dreamgirls* (2006) saw Jennifer Hudson’s Effie White as a combination of the Mammy, Sapphire, and Jezebel stereotypes. She is physically representative of the Mammy stereotype, overweight, round, and seen as minimally attractive in comparison to her bandmates. Although she looks like the image you might expect from a Mammy stereotype, Effie does not see herself as unattractive and is not blatantly treated as such until later in the film. This character also has something that is out of character for a Mammy: a relationship. She does have definitive representations of the Sapphire stereotype, she is loud, unruly, and does at times make those around her look more polished. There is a scene in the film where Effie is auditioning a new song for a record executive in which she is loud, unruly, and seems to come on a little strong to the executive. She is the most conspicuous person in the room. Initially, her romantic relationship is balanced, but her Sapphire edge starts to diminish and she begins to act in ways that contradict her natural character. She is still outspoken and assertive, but rather than being seen as strengths these traits are viewed as pathetic and shows her as vulnerable. Her portrayal of the Jezebel bridges the three stereotypes. She is proud to be with her man and to have love. There is not a lot about love mentioned in earlier portrayals of the Jezebel, but each of Hudson’s stereotypical portrayals are somewhat of a departure from the general definitions and this sets Effie apart in portrayal from similar roles.

**Conclusion**

The researcher concludes that the most commonly seen stereotypes in the four films and analyzed for this study are the Mammy and Sapphire stereotypes. The next most commonly seen type is the Jezebel, and lastly the Tragic Mulatta. The first of the four films (*Gone with the Wind*) started with stereotypes being combined, which later proved to be the trend for all four of the films. As the films moved from the 20th to the 21st century, the Jezebel stereotype became strongly observed in *Monster’s Ball* and *Dreamgirls* yet not observed in *Gone with the Wind* and *Ghost*. The researcher concludes that although the Mammy image is stereotypical in nature, it is still one that cares about others and nurtures. The first film portrays this in Mammy’s loyalty to her master and his family and the affectionate banter she enjoys with Scarlet O’Hara.
The Jezebel stereotype is becoming more prominently seen in the films and the actresses playing these roles are being awarded Oscars for these films. As more time passes, Oscars seem to be awarded to African-American women for roles that are sexual in nature and not nurturing. The Mammy is a nurturing image at heart, while the Jezebel is sexual and unconcerned. These critically acclaimed films receive attention when they win these awards and the nurturing aspect of character portrayal is slowly phasing out. Oscars should be awarded to African-American women for roles that are non-stereotypical and convey positive imagery to the audience. Each of the characters analyzed in this study were strongly portrayed and allowed the actresses an opportunity to express themselves.

The researcher concludes that it important to know how African-American actresses are being portrayed in films because as the times change the awarding of portrayals of African-American women should change as well. There could be more parallels shown on-screen of how women have evolved off-screen. Many women are now writers, directors, and producers in their own right and this is not what is being seen in Oscar-winning films. Instead of rewarding portrayals of stereotypes, there should an emphasis placed on erasing or debunking these stereotypes. The researcher observes that stereotypes present in 1939 are still present in 2006. They have evolved through the times, but the Mammy, observed in the film Gone with the Wind (1939), is still present in Dreamgirls (2006). However, the stereotypes have expanded to be characterized in different ways. As expressed earlier in the paper, these stereotypes can be visual and/or action-oriented. This is significant because these stereotypes can be lurking beneath the surface and easily missed by the viewing public as stereotypes, when in actually they are perpetuating stereotypes.
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DEVELOPMENT OF ANALYTICAL METHODOLOGY FOR MICROWAVE-ASSISTED HYDROLYSIS OF GLYCANS TO MONOSACCHARIDES

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ABSTRACT
Determining monosaccharide compositions is a key step in identifying unknown biologically-derived oligosaccharides, which can be useful in determining their biological function. In order to test a new method for monosaccharides composition determination, the researcher hydrolyzed sucrose and maltoctaose using 1.0 M HCl and 2.0 M TFA in a microwave set at 95 °C for 1 to 2 hours and then analyzed for monosaccharides via HPLC-CAD. Sucrose was completely hydrolyzed with good precision and maltoctaose was hydrolyzed to 67% glucose. This independent method has the potential to be simpler and more economical than other methods currently used for determining monosaccharide composition, and will be used to quantify oligosaccharides standards in a related project.

In the United States, 7.3 million women between the ages of 15 to 44 are infertile (Office of Information Services 2009). Although it may not affect the majority of women, those who are unable to conceive find infertility to be a significant problem. A more complete understanding of the molecular basis of fertilization is essential in order to assist couples having reproductive difficulties.

The process of fertilization is neither trivial nor completely understood. Fertilization is a highly organized process that occurs via recognition, binding, and fusion of an egg and a sperm (see Figure 1).

*Figure 1. The fertilization process begins with sperm attachment and finishes with the block to polyspermy (Takasaki 1998).*
The egg secretes an extracellular matrix, a protective layer that surrounds the egg and serves as a barrier to ensure successful fertilization. The egg’s extracellular matrix found closest to the egg is referred to as the vitelline envelope, which serves as a primary defense mechanism for proper recognition of sperm from the same species, and for preventing more than one sperm from entering the egg, in a process termed the block to polyspermy.

The block to polyspermy occurs by way of a series of reactions that alter the vitelline envelope and block additional sperm from recognizing and penetrating into the egg. The consequences are dire if more than one sperm enter the egg, since additional sperm nuclei would unbalance the total contribution of genetic information within the embryo and cause development to terminate. Following the fusion of a single sperm, the egg releases the contents of secretory vesicles known as the cortical granules, which contain an important block to polyspermy component termed the cortical granule lectin (CGL). CGL is a glycoprotein, a protein with carbohydrates added to its structure that will bind to a partner termed a ligand located on the outer side of the vitelline envelope. The interaction between the lectin and its ligand partner establishes the block to polyspermy.

Studying the process of fertilization in mammals is difficult, since mammals produce a limited amount of eggs and fertilization occurs internally. Therefore, a model organism is needed to study this process. The ideal organism would produce a plethora of eggs for research, which can be collected easily, its fertilization would occur externally, and it would have the same basic fertilization mechanisms as that of mammals. Amphibians were chosen because they produce vast amounts of eggs, about 3,000 eggs each cycle, and fertilization occurs externally, making fertilization easier to study. More specifically, the most commonly studied amphibian is the *Xenopus laevis* frog. In addition to producing a considerable amount of eggs, the block to polyspermy process is known in great detail in *X. laevis*. Furthermore, the same basic extracellular structures exist in mammals and amphibians, (i.e., the mammalian zona pellucida and frog vitelline envelope) and serve the same biological roles. Most importantly, CGL is also found in mammalian cortical granules and functions in the block to polyspermy. Since biochemical purification and biological assays generally require a significant amount of preparatory materials (i.e., eggs), the researcher has chosen to study the block to polyspermy process in *X. laevis*, which will more than likely be applicable to the mammalian fertilization process.

In *X. laevis*, much is known about the basic interaction of CGL and its ligand partner. Lectins are defined as proteins that bind to specific carbohydrates and are classified into various categories depending on their binding specificity.
Ligands are molecules that can bind to specific receptors. The ligand for CGL is also a glycoprotein and is largely comprised of carbohydrate chains termed oligosaccharides (Quill et al. 1996; Strecker et al. 1995; Tseng et al. 2001; Zhang et al. 2004). The ligand oligosaccharides that terminate in galactose residues appear to be the most important in the lectin-ligand binding interaction, which leads to the block to polyspermy. However, not much else is known about the structural composition of these essential ligand oligosaccharides and their relative quantities.

In general, glycoproteins make up half of all eukaryotic proteins (Rebecchi 2009) and the carbohydrate chains, also known as glycans, often serve biological roles (e.g., binding interactions, development, cancer). Consequently, it is important to be able to analyze the structure of glycans found on glycoproteins, but, unfortunately, current methods are inadequate. In order to analyze the glycans or oligosaccharides from glycoproteins, isolation, quantification, and compositional analysis is necessary to determine the monosaccharides that are present within the glycans since they can be comprised of many different sugars and be linked together in a multitude of ways. The goal of this research project is to develop a method to determine the monosaccharide composition of glycans derived from the ligand that binds to the *X. laevis* CGL, and is universally applicable to other biologically-relevant glycans that other researchers might want to study. Thus, the development of a methodology to study the monosaccharide composition of glycans found on the *X. laevis* ligand will serve as a model system for the study of other types of glycoproteins.

With regards to methodology, there are only a few existing techniques available to study carbohydrates (i.e., HPLC-PAD, derivatization, LC-MS, HPLC-UV); however, they are inadequate in one or more of the criteria necessary for these types of analyses. Specifically, compositional assays need to be sensitive, cost-efficient, fast, and quantifiable. The present research is designed to determine the monosaccharide composition of biologically-derived oligosaccharides using high performance liquid chromatography with a charged aerosol detector (HPLC-CAD). Ultimately, this method will quantitatively determine the type of monosaccharide subunits present in the carbohydrate structure derived from the glycoprotein. This new methodology is expected to fit all the criteria discussed previously and most importantly, to be quantifiable. Thus, it will be a significant contribution to the study of glycoproteins. As for the *X. laevis* CGL ligand, it is anticipated that this methodology will enable the researcher to determine the monosaccharide composition of the oligosaccharides that bind to CGL and will contribute to a greater understanding of the block to polyspermy.
LITERATURE REVIEW

One of the purposes of studying carbohydrates, as discussed previously, is to aid in determining the binding specificity of lectins to ligands. In order to do so, a method to analyze glycan components is needed that uses a method of complete acid hydrolysis. The method for monosaccharide and oligosaccharide composition used in this study is performed by high performance liquid chromatography (HPLC) with a charged aerosol detector (CAD) (Dixon and Peterson 2002; Gamanche et al. 2005). Existing methods for hydrolysis and compositional analysis are inadequate for this study's purposes (fast, sensitive, cost-efficient, quantifiable, and readily available). Furthermore, the HPLC-CAD instrument is being used for oligosaccharide isolation and quantification.

Microwave-Assisted Hydrolysis

Hydrolysis is a classical method that is used for the synthesis or break down of molecules. Figure 2 illustrates how hydrolysis occurs under acidic conditions. For example, when sucrose, composed of one fructose and glucose, is exposed to heat and acid, a reaction occurs in which sucrose gets broken down into its subcomponents.

![Diagram of the hydrolysis of sucrose using hydrochloric acid (HCl).](image)

There are a few types of method for hydrolysis: enzymatic, basic, and acidic. Enzymatic hydrolysis uses enzymes to break down specific parts of a molecule and can be expensive and limited to specific linkages. Basic hydrolysis utilizes bases to break down molecules. Lastly, acidic hydrolysis uses acids to break down molecules.

For the purposes of this research, the researcher chose to apply acidic hydrolysis to break down carbohydrates. Acidic hydrolysis is inexpensive because acids are widely used for various applications, and are easier to remove from carbohydrates than bases.

Microwaves have been used for the synthesis of molecules since the mid-1960s. The use of microwaves emerged as an application widely used for...
various reactions (including organic and biochemical reactions) because it is a quick and efficient method (Lee et al. 2005; Corsaro et al. 2004). Several advantages for using microwaves could be improved yields, decreased reaction time, reduction of the solvent volume, and decreasing or eliminating the use of catalysts (Roberts and Strauss 2004).

Heating blocks, conventional ovens, and conventional microwaves have been applied for hydrolyzing molecules. Heating blocks and conventional ovens can require extensive hours or days of heating or very acidic conditions to achieve nearly complete or complete hydrolysis. Moreover, conventional microwaves, although time-efficient, are not efficient in reproducing results. In previous studies, this researcher utilized a conventional oven and attained good hydrolysis results. However, in attempting to reproduce the results, this researcher attained poor hydrolysis results.

There are a couple advantages for performing hydrolysis in an industrial microwave. The temperature can be controlled in a solution to achieve a desired constant temperature. Controlling the temperature is a significant advantage for acquiring reproducible results. Another advantage is setting a method for which the microwave will control the power, time, and temperature accordingly. Setting a method also improves reproducibility due to the constant level of irradiation that can be absorbed.

Existing methods are aimed for partial hydrolysis (Lee et al. 2005; Patane et al. 2009; Zhao and Monteiro 2008). Partial hydrolysis methods are inadequate for a significant reason. In order to determine the composition and quantity of carbohydrates, complete hydrolysis is required. For this reason, the current study is aimed at developing a method for complete hydrolysis. The current method, although still being optimized, will be applied to glycans isolated from the X. laevis glycoprotein for compositional and quantification determination.

Carbohydrate Analysis

Glycans are carbohydrates, or sugars, that can be simple or highly branched—making them complex. Given that glycoproteins make up half of all eukaryotic proteins, it is important to study these carbohydrates. Carbohydrates are difficult to study because they lack chromophores. Chromophores are parts of molecules that absorb light. They are generally highly conjugated or aromatic; that is they contain many double bonds. There are relatively few existing methods that are used to study carbohydrates, including the following: high performance liquid chromatography (HPLC) with pulsed amperometric detection (PAD), HPLC-UV, derivatization, HPLC with charged aerosol detector (CAD), and liquid chromatography with mass spectrometry (LC-MS) (Dixon and Baltzell 2006; Nozal et al. 2005; Lv et
al. 2009; Nana et al. 2008). In order to apply a method to determine the composition and quantities of carbohydrates, a method that is fast, sensitive, cost-efficient, and quantifiable is needed.

**HPLC** is a separation technique that is used to separate compounds based on their affinity to the column matrix. Depending on the column matrix, compounds can bind to the matrix with greater or lower affinity, which is how compounds separate. HPLC can be used alone or in tandem with different detectors (PAD, UV, CAD).

**HPLC-CAD** is a separation technique that separates molecules and detects molecules of low volatility. Figure 3 shows how molecules are separated and detected by the HPLC-CAD. A sample is injected into the HPLC column and separated. Subsequently, molecules leaving the column are sprayed into a chamber with droplets dried in a heated drift zone producing aerosol particles. The aerosol particles are charged and then collected on a filter. The charged particles are then measured as a current.

![Figure 3. HPLC instrument and the detection method of the CAD.](image)

One of the most sensitive separation techniques is HPLC-PAD because the instrument detects low concentrations, increasing the sensitivity of the detector (Nozal et al. 2005). However, the equipment required for this instrument is highly specialized and expensive. In addition, the separation method can be time-consuming, requiring about 100 minutes to achieve baseline separation of monosaccharides (Lv et al. 2009). HPLC-CAD utilizes the sample equipment for separation, detection, and quantification of oligosaccharides, eliminating the need for specialized equipment. Not only is HPLC-CAD cost-efficient, the instrument is also fast. For example, during previous studies, monosaccharides and oligosaccharides (containing at least 13 monosaccharide units) have been separated in less than 16 minutes.

HPLC-UV requires derivatization of carbohydrates because they are poor chromophores (Nozal et al. 2005; Lv et al. 2009). Like HPLC-UV, derivatization, as the name implies, requires derivatization of carbohydrates for their detection. HPLC-UV and derivatization methods require extra procedures to analyze carbohydrates to attain adequate sensitivity. Extra procedures are often tedious and time-consuming, which render the two methods disadvantageous in comparison to HPLC-CAD. Using HPLC-
CAD, samples can be directly injected into the column at low concentrations, eliminating the need for labor-intensive preparation.

The main disadvantages of mass spectrometry (MS) are: 1) cost; 2) not always as quantitative (poorer precision); and 3) difficulties in getting carbohydrates to charge using standard ionization methods. In addition, problems such as reproducibility and quantification have been problematic when characterizing carbohydrates with MS. This is extremely disadvantageous when a method is needed to determine the composition of carbohydrates and quantify the subcomponents (Nana et al. 2008). HPLC-CAD can separate and detect neutral monosaccharides so that glucose and galactose can be distinguished as determined by their retention time. Moreover, in previous studies, HPLC-CAD has been used for quantification of monosaccharides by the use of calibration curves and standards (Dixon and Baltzell 2006; Dixon and Peterson 2002).

Another advantage of using the CAD is its sensitivity in detecting compounds. The CAD detection limit, which is the lowest concentration that can be detected, was calculated to be less than 1 nanogram (ng). The sensitivity was also calculated to be ten times more sensitive than ELSD and five times more sensitive than UV detection (Inagaki et al. 2007). Furthermore, reported detection of non-volatile compounds resulted in a limit of detection of about 1 ng of the compound (Gorecki et al. 2006).

Most, if not all, detectors have limitations that do not allow all types of molecules to be detected quickly and with great sensitivity. CAD is considered to be a universal detector with great potential for quantification (Gorecki et al. 2006; Hazotte et al. 2007; Dixon and Baltzell 2006). The potential universality of the detector is due to the process by which the analytes are converted to charged particles. Literature using the CAD has supported the universality of the detector (Gamanche et al. 2005; Gorecki et al. 2006; Hazotte et al. 2007; Dixon and Baltzell 2006).

One limitation of the detector is that the signal to noise ratio and response is dependent on the organic eluent content (Gorecki et al. 2006). This is not a significant limitation because the organic content can be increased for greater response, therefore, greater sensitivity.

Microwave-assisted hydrolysis is a quicker and more efficient method to achieve complete hydrolysis of test compounds, sucrose and DP 8. Additionally, HPLC-CAD has shown to be a fast, sensitive, cost-efficient and quantifiable approach for separating and detecting carbohydrates.
Materials and Methods

The following details the materials and methods used in the present study.

Materials

The researcher purchased HPLC grade acetonitrile and certified ACS grade formic acid (88%) from Fisher Scientific (Pittsburg, PA) and ACS grade sucrose and HPLC grade acetonitrile from Acros Organics (Morris Plains, NJ). ACS grade hydrochloric acid (36.5-38.0%) was purchased from EM Science (Gibbstown, NJ). Maltooctaose were purchased from Carbosynth Limited (Compton, UK). Maltose was purchased from Fluka (Milwaukee, WI), glucose from Spectum (Redondo Beach, CA) and DP 3 to DP 7 was purchased as a kit from Supelco (Bellefonte, PA). Fucose and N-acetylglucosamine were purchased from Sigma (St. Louis, MO). Galactose was purchased from Fisher Scientific (Fair Lawn, NJ). Fructose was purchased from Matheson Coleman and Bell (Norwood, OH). Water was purified by a Nanopure Infinity UV/UF system.

Equipment

Carbohydrates were hydrolyzed in a CEM MARS industrial microwave. An Alltech prevail carbohydrate ES column (250 x 4.6 mm) was used to separate carbohydrates and an Agilent 1100 HPLC with a custom-built charged aerosol detector similar to that described in Abhyankar (2007) was used for carbohydrate detection.

Microwave-assisted Hydrolysis

Sucrose (520 µg) was hydrolyzed with formic acid (0.95 M) and DP 8 (543 µg) with HCl (0.95 M). Hydrolysis was performed in a conical vial with a hole-punched Teflon septum. A PTFE membrane was inserted on top of the Teflon septum and few holes were poked to minimize chances of the membrane tearing. The sample containing the temperature probe did not have a PTFE membrane. The temperature probe was covered by a glass slip to prevent corrosion. Samples were irradiated at 400W, 45% power, and 95°C for over 1 hour or over 2 hours, for sucrose and DP 8 respectively. Hydrolyzed samples were dried via lyophilization.

Carbohydrate Analysis

Hydrolyzed samples were reconstituted in a mixture of 50% acetonitrile and 50% water, diluted to low concentrations and injected into the column. An isocratic method of 75% acetonitrile and 25% water, held constant, was used to separate monosaccharides. Oligosaccharides were separated using a gradient method with decreasing percent acetonitrile from 65% to 55% over a nineteen-minute period.
RESULTS AND DISCUSSION

Microwave-assisted Hydrolysis of Sucrose and DP 8—Complete hydrolysis of sucrose was achieved by microwave irradiation at 95˚ C for 1 hour and is demonstrated by the absence of sucrose in Figure 4. Formic acid has the ability to overheat, which was observed when hydrolyzing sucrose in a domestic microwave at 10% power. Obtaining the temperature in a conventional microwave is difficult and time-consuming. The overheating of formic acid was overcome by using a temperature probe in the industrial microwave that aids in controlling temperature. The temperature was controlled at 95˚ C ± 2˚ C, thus mitigating the chances of formic acid overheating.

Figure 4. Overlaid chromatograms of diluted hydrolyzed sucrose (3 µg mL⁻¹, top trace) and fructose, glucose, and sucrose mixed standard (1 µg mL⁻¹, bottom trace).

DP 8, because of its seven bonds, was more difficult to completely hydrolyze to monosaccharides than sucrose. Figure 5 shows the products (glucose with small amounts of small oligomers) resulting from 2 hours of microwave irradiation with 0.95 M HCl. 77% of the moles of hydrolyzed DP 8 were recovered as glucose and smaller oligosaccharides. It is uncertain what was causing the loss of DP 8 products, but loss may have occurred during lyophilization or incomplete suspension of lyophilized sample in an ACN and H₂O mixture. Alternatively, the purity of the DP 8 standard may have been less than expected.

Hydrolysis of sucrose required less time and energy due to the single glycolytic linkage between glucose and fructose. Approximately one hour was needed to hydrolyze sucrose because formic acid, a weaker acid than HCl, was used. DP 8 required more energy, thus more time, to hydrolyze due to the increase of glycolytic bonds. Fructose and glucose are linked via an α,β-1,2 glycolytic linkage to form sucrose. DP 8 is linked via seven α-1,4
glycolytic linkages, which may be more difficult to hydrolyze, thus requiring a stronger acid and more water and time.

Figure 5. Chromatogram of diluted hydrolyzed DP 8 (5.6 µg mL⁻¹).

The reproducibility of the hydrolysis of sucrose was achieved using an industrial microwave. As shown in Table 1, hydrolysis was found to be very reproducible as the three microwave hydrolysis experiments gave very similar product concentrations.

<table>
<thead>
<tr>
<th>Concentrations</th>
<th>DP 1</th>
<th>DP 2</th>
<th>DP 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.566</td>
<td>2072.4</td>
<td>67</td>
<td></td>
</tr>
<tr>
<td>6.664</td>
<td>495.4</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>8.079</td>
<td>62.5</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Measured concentration of fructose and glucose released from hydrolysis of 3 µg mL⁻¹ of sucrose. The expected concentrations are 1.58 µg mL⁻¹.

The researcher previously studied the hydrolysis of sucrose using a conventional microwave, which resulted in poor reproducibility. The poor reproducibility could be due to the lack of controlled variables such as temperature. Using an industrial microwave for hydrolysis resulted in reproducible results, and time efficiency, which were due to controlled time, power, and temperature. Sucrose was hydrolyzed three times, consecutively, to test the reproducibility. The reproducibility was calculated by the concentration (mg mL⁻¹) of sucrose components, fructose and glucose. The relative standard deviation of fructose and glucose was 1.65% and 1.26%, respectively.

Separation of Carbohydrates
The separation of carbohydrates is often tedious due to the pre-treatments needed to visualize carbohydrates. The researcher’s previous and current studies have shown that HPLC results in good sensitivity using the
Prevail column for separation of monosaccharides, sucrose and glucose oligomers shown in Figures 4, 5, 6 and 7. Good sensitivity in the analysis of monosaccharides is demonstrated by high signal to noise levels in low concentration level standards analyzed in Figures 4 and 6. The high signal to noise ratio indicates that HPLC-CAD has good sensitivity for detecting carbohydrates at low concentrations. A high signal to noise ratio and good sensitivity is important for the possible application of biologically derived carbohydrates. The linear response was observed for monosaccharide detection (see Figure 8). Quantification of carbohydrates is possible using the CAD as indicated by the linear response of previous studies and glucose. Analysis of carbohydrates is simple compared to methods that require additional steps.

Figure 6. Chromatogram of fucose, N-acetylglucosamine, galactose, and glucose standards at 10 µg mL⁻¹.

Figure 7. Separation and detection of 1 µg mL⁻¹ (20 ng injected) DP 1 to 8 glucose oligomers. A contaminant overlapped with the DP 4 peak.
Quality of Hydrolysis Yields

Complete hydrolysis of sucrose is demonstrated by the absence of sucrose as shown previously in Figure 4. Sucrose reaction product concentrations were close to that expected. As shown in Table 2, 77% DP 8 was recovered after hydrolysis, with glucose being the predominant product.

<table>
<thead>
<tr>
<th>Compound</th>
<th>Retention Time</th>
<th>Peak Area</th>
<th>% Glucose Oligomer</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP 1</td>
<td>5.566</td>
<td>2072.4</td>
<td>67</td>
</tr>
<tr>
<td>DP 2</td>
<td>6.664</td>
<td>495.4</td>
<td>9</td>
</tr>
<tr>
<td>DP 3</td>
<td>8.079</td>
<td>62.5</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 2. Results of DP 8 hydrolysis. The right column shows the mole percent yield of hydrolyzed products.

Future Research

Future studies will include separation of the monosaccharides fucose, N-acetylgalactosamine, N-acetylglucosamine (and their hydrolysis products), mannose, and galactose, found in glycans, as they are the most common monosaccharides present in glycans. To further optimize the method the researcher would decrease the sample size to be hydrolyzed and to apply the method to isolated glycans due to the limited material (µg amounts) available to analyze for hydrolysis and compositional analysis.

Once the methodology has been sufficiently worked out, the researcher plans to determine the composition of glycans that have been recently isolated from the *X. laevis* glycoprotein by Noah Kiedrowski. Binding assays will be used to determine which monosaccharides react with the CGL lectin. The researcher expects to get basic structural information on the important ligand constituents.
Conclusion

Microwave-assisted hydrolysis proves to be a useful method to hydrolyze sucrose and DP 8. Microwave-assisted hydrolysis, although still being optimized, will continue to be used as a method to analyze monosaccharide content. The researcher’s previous studies, including the data shown, demonstrate the simplicity of HPLC-CAD as a method to analyze carbohydrates. The results illustrate the effectiveness of hydrolysis and the sensitive detection of carbohydrates, which may be applied universally.
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APPROPRIATE TREATMENT FOR DUALLY DIAGNOSED ADOLESCENTS: AN ANALYSIS OF PROGRAM SUCCESS AND REVIEW OF LOCAL FACILITIES

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Faculty Mentor: Dr. Lisa Tavano-Hall

ABSTRACT

The coexistence of substance abuse and psychiatric disorders among adolescents is of growing concern. While treatment programs for these dually diagnosed individuals are available, the primary focus has been on adults, leaving the unique developmental needs of the adolescent unmet. A quantitative analysis of U.S. national data revealed that of the 1,355 statewide facilities offering treatment programs for clients with co-occurring disorders; only 4 of the 18 local facilities qualified to treat adolescents. In addition, meta-analysis of success rates reported in the literature revealed that success rates were significantly higher for cross-type programs than for substance abuse only programs. This finding provides evidence of the need for more facilities providing cross-system programs to serve the increasing prevalence of dually diagnosed adolescents.

A commonly used blanket term, dual diagnosis refers to the coexistence of two or more diagnosable disorders, but the actual diagnosis describes an individual who meets the Diagnostic and Statistical Manual (DSM-IV) criteria for at least one mental health and one substance abuse disorder (American Psychiatric Association 2000). The co-occurrence of abuse and mental disorders is a challenge that has been of primary focus for mental health professionals over the past several decades (Bender 2006). More recently, researchers have been studying this area to further the understanding of the relationship between mental disorders and substance abuse disorders, as well as to develop programs for the successful treatment of individuals with such Dual diagnoses (Hawkins 2009). Mental health professionals have come to recognize co-occurrence as being less of an exception to the diagnostic rule and more of a norm, thereby increasing the accuracy of assessment (Greenbaum 1996). Researchers are also studying and addressing the need for specialized treatment programs that focus on the integration of Dual diagnosis programs into mental health facilities and drug and alcohol rehabilitation centers (Hawkins 2009).

Although developments in assessment techniques and treatment programs for dually diagnosed individuals have helped further the knowledge and understanding in this area, researchers tend to focus their research on adults, leaving out a large and critical population: adolescents (Greenbaum 1996). The treatment of adolescents with co-occurring disorders has become
an increasingly pressing issue due to the significant percentage of dually diagnosed patients in this population. Dually diagnosed adolescents present unique challenges to both mental health care and substance abuse services. For a treatment program to be effective, it must incorporate not only the specialized needs of the dually diagnosed client, but also the developmental needs of the adolescent (Gregorius 1991). Unfortunately, insufficient research, under-diagnosis, and conflicting treatment approaches have left this issue inadequately addressed.

Determining the prevalence of co-occurring mental health and substance abuse disorders can be challenging and the collected data is usually skewed. Clinical data tends to overestimate the prevalence of co-occurring disorders, while national and community data, although more preferred, tends to underestimate it (Hawkins 2009, 199). Due to the flaws in large-scale epidemiological studies, researchers have had to rely heavily on smaller probability household samples.

**LITERATURE REVIEW**

Lahey, Flagg, Bird, and Schwab-Stone (1996) looked at data from the *National Institute of Mental Health Methods for the Epidemiology of Child and Adolescent Mental Health Disorders* and discovered very high rates of co-occurring disorders among adolescents. They found that in a community sample of 401 adolescents, ages 14- to 18-years-old, 27.8% had at least one diagnosed mental health disorder and 6.2% had a substance abuse disorder, with the higher rates of substance abuse (9.9%) among 17-year-olds. Additionally, 76% of those with a substance abuse disorder reported having at least one diagnosed mental health disorder (Lahey et al. 1996). Lewinsohn, Hops, Seeley, and Andrews (1993) found further evidence of prevalence among adolescents in their research on adolescent psychopathology. In their Oregon Adolescent Depression Project, the researchers surveyed 1,710 Oregon high school students ages 14 to 18 and found that 66.2% of those with a substance abuse disorder also had a co-occurring mental health disorder (Lewinsohn et al. 1993). Finally, Chan, Dennis, and Funk (2008) analyzed data from 77 substance abuse treatment studies and found that 90% of adolescents under the age of 15 with a substance abuse disorder had at least one or more co-occurring mental health disorders (Chan et al. 2008).

The adolescent years are a time of dramatic changes, with each individual coping and conforming to these changes in various ways. The developmental differences between age ranges in adolescents are much greater than in adults. Therefore, the question facing clinicians is: What is the appropriate age range for treatment programs designed for children? Bender (2006)
suggested that although current models of treatment have been successful in the past to treat adults, they are not adequate to serve an adolescent's unique developmental needs. Gregorius (1991) further elaborated on the many developmental hurdles that face adolescents: consolidation of self-image, development of mastery strengths regarding control of emotions, and the establishing of a personal identity. For a treatment program to be successful, it must encompass all these developmental complexities. Gregorius warns that the disease process associated with substance abuse and mental illness may be intensified and accelerated by the dynamics of psychological growth and external dependence that is associated with adolescence (1991). Failure to acknowledge these dynamics results in a rise in client relapse and overall lower success rates.

In addition, Bender (2006) reviewed current studies in treatment effectiveness with dually diagnosed adolescents and reported that practitioners need to be aware of the difficulties and frustrations that come along with treating adolescents with a dual diagnosis. Bender's review revealed that dually diagnosed adolescents are likely to have poor attendance in treatment, to be difficult to engage, and to have high rates of noncompliance. This information is vital when developing treatment programs. Mental health care professionals must realize that in order to be successful, it is imperative that treatment programs address the unique needs of the developing adolescent by applying adequate assessment techniques that address these special needs.

Assessment techniques are constantly under investigation and review. Greenbaum (1996) has researched many of the assessment confounds faced by clinicians. The first prevailing issue is the lack of instruments and guidelines with which to assess substance abuse within this age range. Traditional assessment models identify substance abuse disorders by measuring dimensions of drug behavior. While this may be appropriate for assessing adults, adolescents have a shorter history of substance abuse and the contrast in life-stage may produce differing results (Bender 2006). Another major difficulty that presents itself when assessing adolescents is the struggle to know what constitutes substance abuse or an addictive behavior in a population where experimental substance use is a norm (Greenbaum 1996). As drug and alcohol usage increases among children and adolescents, what accurately defines substance use as opposed to a substance abuse disorder?

Another consideration to this question is that, for adolescents the use of substances such as alcohol is illegal and can therefore be considered abuse. This factor often results in adolescents hiding their substance use from adults. Clinicians should address this consideration because it can have a significant impact on the accuracy of assessment and diagnosis of the client.
Historically, treatment approaches in mental health facilities and substance abuse facilities have differed greatly. Typically, mental health care professionals focus on the long-term treatment and maintenance of a mental health disorder; whereas substance abuse professionals focus on the immediate elimination or control of the individual’s chemical dependencies (Gregorius 1991). Ideally, treatment for a dually diagnosed client would integrate both of these approaches into one comprehensive program. Additional evidence presented by Gregorius (1991) and Belfer (1996) support these findings and suggest that in order to eliminate this conflict between treatment approaches, the need for integrated treatment programs and more comprehensive training must be addressed. Pierce’s (1991) study on dual-disordered adolescents suggested that the majority of adolescents with a Dual diagnosis did not begin abusing substances until after the onset of a psychiatric disorder (Pierce 1991). Caton, Gralnick, Bender, and Simon (1989) found that 67% of their 51 patients did not abuse alcohol or other substances until the onset of their diagnosable psychiatric disorder. More specifically, Deykin (1987) concluded that the onset of major depression quite often (79%) preceded alcohol and other drug use, suggesting the possibility of self-medication as a factor in the development of alcohol or substance abuse. Data such as these serve as strong indications that the co-occurrence of disorders is no longer the exception and treatment programs should be designed with this in mind. It is clear that the separation of the mental health and substance abuse treatment fields may result in unsuccessful treatment for many adolescents.

As can be seen when reviewing the literature, understanding of the treatment of dually diagnosed adolescents has improved; however, several researchers offer insight into the possibilities of future direction. Gregorius (1991) emphasizes the role that peer pressure plays in an adolescent’s life and suggests that counselors explore group or peer counseling programs. Multisystematic therapy is an example of such a treatment approach that integrates various individuals who affect and influence the adolescent’s life into the treatment program. It is based on a social ecology theory posed by Bronfenbrenner (1979) that emphasizes the influence of family, peers, school, and community on the anti-social behavior of youth. By using multisystematic therapy, adolescents can benefit from a larger support system that may be vital to their success. Hawkins (2009) has found the multisystematic approach to therapy to reduce substance use, decrease psychiatric symptoms, and improve family and peer relationships.

Belfer (1996) found that researchers who have made the most meaningful and useful contributions to the development of treatment have done so with the use of standardized tests developed specifically for children and
adolescents, such as the Diagnostic Interview for Children and Adolescents and the Kiddie-Schedule for Affective Disorders and Schizophrenia (Belfer 1996). These tests share the characteristics of specificity and precision within their questions. These findings have led Belfer to believe that the more specific a test or questionnaire is to the client-group, the more reliable the results. The researcher therefore encourages the further development of such standardized measures.

**Problem Statement**

The need for better assessment techniques, integrated treatment programs and cross-trained professionals has been addressed by the literature; however, it seems that little action toward rectifying these problems have been taken. The current research emphasizes the need for the development of age appropriate treatment programs that meet the unique needs of dually diagnosed adolescents. By reviewing national data on program types available in the U.S. and the structure of current local treatment programs, this researcher plans to produce an objective layout of the availability of programs designed for adolescents.

**Hypothesis**

The researcher predicts that, in consideration of the prevalence of dual diagnosis in adolescents, there will be a limited number of programs available to meet these needs. In addition, this researcher hypothesizes that a meta-analysis of the literature will show that reported success rates are significantly higher in cross-system programs than substance abuse only programs.

**Methods**

The following details the methods used in the present study.

**Analysis of Local Programs**

The researcher performed a quantitative analysis of statistics on substance abuse and mental health care facilities using the 2007 National Survey of Substance Abuse and Mental Health Treatment Services (N-SSATS 2007). The N-SSATS was designed by the Substance Abuse and Mental Health Services Administration to collect data on location, characteristics, services, and use of substance abuse and mental health facilities throughout the United States. Statistics on the facilities included in the survey are regularly updated. Data for 2007 is the most currently available. The N-SSATS provides a comprehensive listing of facilities, including federal agencies, the Department of Veteran Affairs, the Department of Defense, Indian Health
Services, state approved agencies and independent or non-state approved agencies.

The researcher then screened the state of California data provided in the N-SSATS for several characteristics, including: facilities providing services for co-occurring disorders, facilities providing services to adolescents, and facilities providing services to adolescents with co-occurring disorders. Mojtabai previously used this method of data analysis in his 2004 research on dual diagnosis programs. Although Mojtabai’s research included data from all 50 states for his national study, the current study will dissect the data to include only facilities operating within the metropolitan area of Sacramento, California. Facilities that met the criteria underwent further investigation for specific information on services provided, the development and structure of treatment programs, and their success rates. The researcher obtained information for each facility through their administrative website, or staff provided it on request.

Meta-Analysis

An initial meta-analysis of the literature was conducted to determine outcomes and success rates of different program types reported in previous studies. Five studies were chosen for analysis, including four substance abuse (SA) program studies and one cross-system (CS) program study. Studies 1 and 2 (SA1 and SA2) reported success in regards to abstinence from drug and alcohol use. Studies 3, 4 (SA2 and SA3) and 5 (CS) all reported success in terms of lowered mean scores from self-reported substance usage scales. The researcher calculated the numbers of patients who were successful or had relapsed based on reported percentages of a successful score and the number of patients in the study (see Table 1), and then combined the number of successes and relapses for the four SA programs for purposes of analysis. The data from the five studies was analyzed for differences in treatment outcomes between the two types of programs (SA and CS) by using the chi square method.

<table>
<thead>
<tr>
<th>Program</th>
<th>N</th>
<th>Success (%)</th>
<th>Number of Successes</th>
<th>Number of Relapses</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA1</td>
<td>234</td>
<td>12.5</td>
<td>131</td>
<td>103</td>
</tr>
<tr>
<td>SA2</td>
<td>88</td>
<td>58.0</td>
<td>11</td>
<td>77</td>
</tr>
<tr>
<td>SA3</td>
<td>247</td>
<td>51.0</td>
<td>126</td>
<td>121</td>
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<tr>
<td>SA4</td>
<td>506</td>
<td>26.9</td>
<td>150</td>
<td>356</td>
</tr>
<tr>
<td>Total SA Program</td>
<td>1075</td>
<td>39.0</td>
<td>418</td>
<td>657</td>
</tr>
<tr>
<td>CS</td>
<td>107</td>
<td>82.5</td>
<td>88</td>
<td>11</td>
</tr>
</tbody>
</table>

Table 1. Program success and relapse rates.
RESULTS
The following details the results of the present study.

Analysis of Local Programs
Results from the N-SSTAS data analysis showed that 3,597 facilities nationwide offered treatment programs for clients with co-occurring disorders. Within the state of California, 1,355 facilities offered treatment programs for clients with co-occurring disorders, 18 of which were located within Sacramento County. Of these 18 facilities, four were qualified to offer specialized treatment programs for adolescents. These four facilities were comprised of three mental health facilities and one substance abuse facility.

Mental health facility #1 (MHF1) offers inpatient treatment to both children (12-years-old and younger) and adolescents (13- to 18-years-old) with group sessions and one-on-one consults when recommended by a physician. Although this program is advertised as being designed specifically for dual diagnosis patients, further investigation revealed the treatment program to be primarily psychiatric-based, with only acute alcohol detoxification available. Patients with additional substance abuse needs are referred to outside sources, as the facility is unable to accommodate these needs.

Mental health facility #2 (MHF2) offers a six-month intensive treatment program for adolescents ages 12 to 21. This treatment program follows a multisystematic therapy approach, which involves the client’s family, peers and even teachers. This program includes intensive individual therapy sessions with cross-trained clinicians, in addition to group and family sessions. Counselors place emphasis on the treatment of the whole person and therefore provide access to all mental health and substance abuse needs in one program.

Mental health facility #3 (MHF3) offers an inpatient treatment program for adolescents ages 13 to 17. This program includes 24-hour nursing, daily interventions, individual, group and family therapy sessions, and motivational therapy. A program team consists of both physicians and cross-trained clinicians. Counselors place emphasis on the treatment and stabilization of the client’s most serious symptoms to allow for a quick transition to a less intensive level of care.

Substance abuse facility #1 (SAF1) offers outpatient treatment programs for adolescents only. The client’s assigned case manager develops individualized treatment programs and uses a multisystematic therapy approach by involving family members, friends, teachers, and even employers in the treatment program. Length of treatment is one year, during which time the client receives services from both a therapist and substance abuse counselor. While
the length of treatment is typically one year, the therapist may advise clients to stay in treatment until they conclude that the client has achieved successful participation in the treatment.

Meta-Analysis
In order to run comparisons between the program types, the researcher combined the success rates and relapse rates of participants from the four substance abuse programs. The total success rate for participants in substance abuse programs was 39.5% (N = 1075) and the success rates in the cross-systems program was 83.5% (N = 107). A chi square test of independence revealed that success rates were significantly different between the two types of programs (χ² (1, N = 1182) = 74.73, p < .005). The effect size was small (r = .25).

DISCUSSION
The present study looked at treatment programs for dually diagnosed adolescents, specifically in Sacramento County, while taking the prevalence rates of this population into consideration. As hypothesized, there appears to be a lack of programs available for dually diagnosed adolescents, considering the prevalence of this diagnosis according to past studies (Gregorius 1991). While many facilities advertised having adolescent dual diagnosis programs available, further investigation found this claim to be inaccurate. Ultimately, only four out of the six facilities that appeared to have these programs met this study’s criteria for specialized programs designed to meet the needs of dually diagnosed adolescents.

Results from the meta-analysis revealed a significant difference in success rates between program types. Dually diagnosed adolescent in cross-system programs had higher treatment success rates when compared to dually diagnosed adolescents in substance abuse only programs. These findings support those of previous researchers who emphasize the need for integrated treatment programs in order to have more successful outcomes. In addition, the results from the meta-analysis support the need for more facilities that provide cross-system programs in order to meet the demands of an increasing prevalence of dually diagnosed adolescents.

LIMITATIONS
One of the greatest limitations in this study was the lack of a universal measurement and definition for “successful outcomes.” These inconsistencies made data analysis difficult, and required the researcher to omit many studies due to the broad range of outcome measures. One suggestion to aid in
the development of treatment programs is the redefinition of “successful outcomes” for dually diagnosed clients. As individuals with both substance abuse disorders and psychiatric disorders are susceptible to relapsing (Hawking 2009), the combination of the two disorders only increases the chances of relapse. Clinicians should consider treatment as ongoing maintenance of the disorder rather than a means to ultimate recovery. By revising the definition of successful outcomes, researchers may more accurately assess the outcomes of treatment programs for future studies.

**Conclusion**

Despite these limitations, the present study provides supportive evidence of the effectiveness of cross-system treatment programs and the need for such programs. Due to the small number of studies analyzed, research should continue as the results from more studies on success rates for cross-system programs become available. In addition, researchers may consider the analysis of factors contributing to client relapse in both substance abuse and cross-system programs for the further development of treatment approaches. Although researchers have made great strides in this area of study, there is still much to examine to ensure clinicians can more fully understand the issues associated with this complex adolescent population, dual diagnosis, and appropriate treatment programs.
REFERENCES


Spy Kids: A New Breed of Latinos in American Cinema

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Faculty Mentor: Dr. Gregory Kim-Ju

ABSTRACT

Since the introduction of motion pictures in the United States, Latinos have been consistently depicted in American films in stereotypical ways that have resisted change. From the greaser characters of the silent movies in the early 1900s to the current representation of Latinos as criminals, sexual objects, and buffoons, images of Latinos are mostly negative in nature. However, with the increasing number of Latino directors and producers in the American film industry, we are beginning to see a shift in the way Latinos are being depicted. Latino filmmakers are increasingly representing Latinos in significant roles previously denied to them by many non-Latino white American filmmakers. They are also portraying Latinos as more complex and multidimensional characters than ever before. Using an ideological approach to film, this study argues that Mexican American director Robert Rodríguez counters stereotypes of Latinos in his film Spy Kids.

On Hispanics and United States Film: An Overview and Handbook, Keller (1994) observes that degrading stereotypical depictions of ethnic minorities were common in the American culture even before motion pictures were invented. Nevertheless, because film images have the power to remarkably arouse our emotions and to communicate to a large audience, negative stereotypical depictions in film are so powerful that they command our attention.

From the silent movies era of the early 1900s to the present, white American filmmakers in the United States have consistently portrayed Latinos in negative stereotypical ways. (In this study, the terms “white American(s)” and “Anglo American(s)” refer to non-Latino white American(s), and the term “Latino(a)(s)” refers to all Latinos, regardless of color or nation of origin). According to Woll (1980), in the early silent American films, Mexicans were depicted as vicious bandits; they were the most vile and cruel characters; they raped, gambled, and cheated. These “despicable” Mexican characters were soon named greasers, and they were the first in a long tradition of Latino stereotypes in American films.

Although stereotypical images of Latinos in American films have been persistent, the increasing number of Latinos in positions of power in the motion picture industry, such as directors and producers, is starting to make a significant impact on how Latinos are currently portrayed in film. Latino film directors, such as Patricia Cardoso, Lourdes Portillo, Alejandro González
Inárritu, Alfonso Cuaron, Gregory Nava, and Robert Rodriguez, are creating films that bring a different perspective about Latinos to audiences. This phenomenon compels us to ask an important question: How are Latino filmmakers countering stereotypical depictions of Latinos in their own films? To answer this question, the present study examines Robert Rodriguez’s film Spy Kids (2001) using an ideological approach. First, this analysis provides a brief review of the ways in which Latinos have been portrayed in the United States media. Next, this study defines the term “stereotype” and shows that stereotypes are used by the dominant groups in society to maintain the status quo. Then, this research looks at the origins of Latino stereotypes in films and the different categories of Latino stereotypes. Next, this analysis shows how some filmmakers are countering stereotypes of Latinos followed by a critical examination of the film Spy Kids, as one example of countering stereotypes in films.

LITERATURE REVIEW

According to the United States Census Bureau (2006), there were 44.3 million Latinos in the United States as of July 1, 2006, representing the largest minority group in the country. Representation of Latinos in the media, however, has not grown proportionately to the increase of the Latino population. Recent studies have shown that only 3.9 percent of the characters in primetime television were Latino, compared to the 12.5 percent Latino population in the United States at the time the study was conducted (Mastro and Behm-Morawitz 2005). In contrast, white Americans accounted for 80.4 percent of all the characters in primetime television while they represented only 69.1 percent of the total U.S. population (Mastro and Behm-Morawitz 2005).

Furthermore, the limited representation of Latinos in the media is primarily stereotypical (Ramírez Berg 2002; Berumen 1995; Keller 1994; Mastro and Behm-Morawitz 2005; Rivadeneyra, Ward and Gordon 2007; Mastro 2003), which raises important questions about the impact that negative stereotypical images of underrepresented ethnic groups in the media may have on audiences. Rivadeneyra et al. (2007), for example, found a significant negative correlation between Latino college students’ exposure to media images and lower self-esteem in relation to their own ethnic identity. This finding suggests that media exposure to negative stereotypes of Latinos may be related to lower self-esteem among Latino young adults.

Moreover, although findings suggest a current trend to cast Latinos in more prominent roles than the subordinate characters traditionally assigned to them, Latinos are mostly depicted as being the least intelligent and articulate
characters in primetime television shows (Mastro and Behm-Morawitz 2005). In addition, although Weaver (2005) found that from 1990 to 2000 white Americans’ views of Latinos improved, especially regarding wealth, work ethic, and intelligence, their perceptions of Latinos as violent did not change. These findings raise important questions about the origin of negative stereotypes of Latinos, such as being less intelligent, less articulate, and more prone to violence.

Defining Stereotype
The term **stereotype** was coined by Lippmann in 1922 (Huber 1989). In his book *Public Opinion* (1947), Lippmann observes that, because our environment is highly complex and we lack the time and opportunities to engage in intimate acquaintances, we engage in stereotyping as a means to simplify our experience and economize our effort in understanding the world. In addition, Allport defines stereotype as “an exaggerated belief associated with a category. Its function is to justify (rationalize) our conduct in relation to that category” (1979, 191). In Allport’s view, stereotypes could be either favorable or unfavorable. Nevertheless, the term “stereotype” usually implies a negative value judgment about people from another group. In this tradition, Ramírez Berg defines **stereotype** as “a negative generalization used by an in-group (Us) about an out-group (Them)” (2002, 15). Thus, because stereotypes are implicitly negative, they work against the group being stereotyped. According to Ramírez Berg (2002), two key components are needed for the development of negative stereotyping. The first component is ethnocentrism, which involves other groups being judged by the standards of one’s own group. The second component is prejudice, which implies the inferiority of others based on ethnocentrically-established differences between the out-group and one’s own group.

Theoretical Background
Understanding how stereotypical images mold our perceptions of reality is fundamental to evaluating the effects of negative ethnic stereotypes. Ramírez Berg (2002) proposes that stereotypes become normal through repetition, and they serve an important ideological function for the dominant groups of society. This function is to demonstrate why the dominant group, and not the out-group, holds the power and why social structure needs to remain the way it is (Ramírez Berg 2002). Moreover, Herman and Chomsky (2002) observe that because one of the functions of the media is to inculcate the values and beliefs that will ensure the integration of individuals in the social structure, the dominant groups in society use mass media as a way to systematically convey their propaganda, maintain the status quo, and, consequently, manufacture consent. Furthermore, Zavarzadeh (1991) contends that even
films that may seem innocent and neutral forms of entertainment are charged with ideological content. In their tales (narratives), films delineate the boundaries of their ideology and instruct the viewers about how to interpret their cultural reality, in a way that confirms the dominant ideology (Zavarzadeh 1991). An *ideology* is a set of doctrines or beliefs that form the basis of a political, economic, or other system (The Free, n.d.). The consequence is the viewers’ acceptance of what they are watching on the screen as a true reality.

The Origins of Latino Stereotypes in American Films

With the introduction of motion pictures in the United States, North American audiences were exposed to images of people from around the world, including their Mexican neighbors. The images of these early silent films presented Mexicans as the most violent, wretched, and evil characters in their stories. They cheated, robbed, raped, and killed without hesitation (Woll 1980; Berumen 1995; Keller 1994). These “despicable” Mexican characters were named *greasers*, implying a negative connotation that referred to the degraded social status of Mexicans in American society (Woll 1980; Keller 1994). The evil nature of these greasers was evident in their vicious conduct. The greaser would heartlessly throw a child in the water, would attack the white American who had just saved his life, and would steal the money given to him to buy medicine for a dying man (Woll 1980). The negative Latino image in early American films was mostly represented by Mexican characters, possibly because of Mexico’s close vicinity to the United States compared to the rest of Latin America and possibly because of the troubled relationship between the United States and Mexico, as suggested by Woll (1980) and Berumen (1995). We know these characters are Mexican because we are told they are Mexican, either through the storyline or the title of the films, such as *A Mexican Romance* (1912), *The Mexican’s Jealousy* (1910), and *Broncho Billy’s Mexican Wife* (1912). We can also pick this information up in a myriad of films that contain the term “greaser” in their titles. According to Keller (1994), “greaserhood” was a degraded state associated with Mexicans.

While the titles alert the audience to the subject of the movies, Woll (1980) and Berumen (1995) observe two important characteristics of Mexican-American relations evident in silent American films that still prevail in the present. First, Mexicans have been traditionally seen as unable to make their own decisions and having to rely on the help of independent and capable white American leaders. Second, Mexicans have been constructed as inferior to their white American counterparts in their capacity to succeed in love endeavors. Thus, when given a choice between a Mexican and a white American in film, even the young Mexican lady will prefer the white
American. In addition, Woll (1980) argues that these images imply that it is completely permissible for a white American male to marry a high-bred Mexican female but unacceptable for a Mexican male to pursue a white American wife.

In Berumen’s (1995) view, the stereotyping of Latinos in American films is a function of various political and historical events. The first event was the “Black Legend,” which, according to Berumen, was a propaganda campaign England launched in the 1500s to damage the reputation of Spain, its rival colonizer, by proclaiming that Spain’s colonizing practices were brutal and deceptive. The second event Berumen notes is the Manifest Destiny philosophy, which proclaimed that it was the first American colonizers’ destiny to spread democracy and Christianity across the American continent. In addition, Berumen observes that the design of the Monroe Doctrine in the 1820s had the purpose of closing the American continent to European colonizers, thus allowing England and the United States to have dominance on the American continent. Moreover, Berumen proposes that the mythology of the Alamo, which is loaded with contempt towards Mexicans, was aimed at glorifying the efforts to institute slavery in Texas. Furthermore, Berumen asserts that the Mexican-American War, which took away from Mexico about half of its territory, was an attempt to maintain the balance between free and slave states but ultimately ended in the Civil War. Finally, the last event Berumen notes as influencing the stereotyping of Mexicans on film was the racism in the institutions of slavery and segregation in the United States. Consequently, according to Berumen (1995) and Woll (1980), as a result of the early Mexican-American relations and all the political and historical events, a number of stereotypes of Latinos were forged in Hollywood to justify the superiority and supremacy of the United States over Latin American countries.

Latino Stereotypes in Hollywood

According to Ramírez Berg (2002), the use of ethnic stereotypes in American films is an important convention that allows the Anglo American hero to illustrate his moral, physical, and intellectual superiority over the stereotypically portrayed ethnic opponent, who is inherently a threat to the status quo. Ramírez Berg (2002) has identified six major prevailing Latino stereotypes in American films: el bandido, the harlot, the male buffoon, the female clown, the Latin lover, and the dark lady. El bandido is the Mexican bandit, whose roots go back to the “despicable” Mexican characters of the silent “greaser” movies. El bandido is vicious, cruel, dirty, oily-haired, and unshaved, and he is also represented in contemporary films as the dangerous drug lord or gang member of the inner city. The harlot is the female
stereotype that corresponds to el bandido. She is a lusty, hot-tempered, and a nymphomaniac sex machine craving to be intimate with an Anglo male. The male buffoon serves as second-banana comic relief (sidekick); he is simple-minded and unable to speak standard English. The female clown is the counterpart of the male buffoon; she is silly, comical, and colorfully exotic. The Latin lover is the possessor of a combination of sensuality, eroticism, exoticism, violence, and danger. He is the forbidden lover whose ultimate purpose is to provide sexual pleasure. The dark lady is the female Latin lover; she is sensual and daring, distant and cautious, sinful and exotic; she is the prohibited fruit that will try by all means to seduce without compassion the trusting, moral, intelligent, brave, and righteous Anglo American male hero to steal him from the flawless Anglo American heroine.

Countering Stereotypes
Although stereotypes of Latinos have been persistent in Hollywood, there have been numerous occasions in which stereotypical portrayals of Latinos have been contested. Ramírez Berg (2002) enumerates five categories of films that counter Latino stereotypes. The first category is constituted by films where the portrayal of Latinos hovers between stereotypical and progressive. For example, Ramírez Berg (2002) observes that in the film Anaconda (1997), Latin America is represented as an exotic and dangerous place; nevertheless, the heroine of the movie is played by Jennifer Lopez, a Latina. The second category is represented by films that have diverted from conventional Hollywood paradigms, for instance, by simply casting Latinos to play Latino characters, the way Robert Redford did in his film The Milagro Beanfield War (1988). The third category is made up of films that are ideologically oppositional, such as Oliver Stone’s Salvador (1986) and Roger Spottiswoode’s Under Fire (1983), in which the filmmakers criticize the United States’ practice of interfering in the internal affairs of Latin American countries (Ramírez Berg 2002). The fourth category is made up of those films in which Latino actors countermined the Latino stereotypes. For example, in the movie Stand and Deliver (1988), Edward James Olmos plays a mathematics teacher. The final category proposed by Ramírez Berg is represented by Latino filmmakers in the United States whose films overtly or covertly counter the persistent Latino stereotypes that many of their white American counterparts have consistently offered through their films. Examples of filmmakers in this last category are: Ramon Menendez, who directed Stand and Deliver (1988), Gregory Nava, director of My Family, Mi Familia (1995), and Robert Rodríguez, whose film Spy Kids (2001) is the subject of the present study’s analysis.
In *The Ethnic Eye*, Noriega and López (1996) observe that the first generation of Latinos in the United States that had access to a means of self-representation in television and film was the generation that grew up in the 1960s and 1970s. The authors further note that this generation was born in the political and ideological context of the Cold War, the Civil Rights movement, and the struggles of Third World countries against the colonialist practices of the United States and European countries. As a result, most of the films that originated around that time were used as an expression of the struggles for Latino self-affirmation and identity.

The early work of Latino filmmakers found limited outlets. It was not until the 1980s that some Latino filmmakers were able to make feature films that had box office success, such as *Born in East L.A.* (1987), *La Bamba* (1987), and *Stand and Deliver* (1987). The portrayal of Latinos in these films countered the stereotypes traditionally presented by most white American filmmakers. In addition, Baez (2007) observes that the depiction of Latinas in films, such as *Selena* (1997), *Girlfight* (2000), and *Real Women Have Curves* (2002), has positively evolved. In these films, Latino women are represented as complex, hybrid, and transgressive characters who no longer perform just service roles, thus countering the traditional stereotypes of Latinas in American films as submissive, one-dimensional sexual objects, who are destined for servitude.

An important reason for the current trend that counters stereotypical representations of Latinos in American films is the increasing number of Latinos in key positions of power in the film industry. For example, film producer Moctesuma Esparza, actor and director Edward James Olmos, producer and director Robert Rodríguez, and producer and director Gregory Nava are some important Latino figures who have created films that have become box office successes while portraying Latinos from a Latino perspective and countering stereotypes (Ramírez Berg 2002; Berumen 1995; Keller 1994; Noriega 1996).

To summarize, although Latinos are the largest minority group in the United States, their media exposure is extremely limited and stereotypically based. Films are a powerful means to communicate ideologies and create and perpetuate stereotypes. Latinos have been stereotypically portrayed in American films since the beginning of the film industry in the United States, but the increasing number of Latinos in positions of power in the film industry is changing the way Latinos are being portrayed. To understand how stereotypes are being countered in the work of Latino filmmakers, this study examines Robert Rodríguez’s film *Spy Kids* (2001) as one example.
METHODOLOGY

The selection of the film *Spy Kids* (2001) as the subject of this analysis was based on specific criteria. First, the research question focuses on Latino filmmakers; therefore, *Spy Kids* (2001) is an appropriate selection because this film was directed by Mexican American director Robert Rodríguez. Second, because the research question also focuses on the representation of Latino characters in film, selecting a film that contains Latino main characters was important. The reason for this criterion is to show how Latino filmmakers are portraying Latino characters in their films. The main characters in *Spy Kids* are the Cortezes, a Latino family. Third, because *Spy Kids* was made and released within the last decade, this film is an appropriate representation of the current American context. Furthermore, *Spy Kids* was highly successful at the box office in the United States. According to Movie Web (n.d.), *Spy Kids* is the highest grossing film of all time in the United States directed by a Latino filmmaker. High success at the box office means that a film has been viewed by a large, mainstream American audience. This criterion is important because one of the purposes of the present analysis is to argue that it is possible to have Latinos portraying lead character roles in mainstream films. Finally, because the research question also focuses on countering the stereotypes of Latinos, the selection of a film that contains at least some Latino core values was important. The rationale for this criterion is that the presence of actual Latino core values in the film serves the purpose of showing some of the values that are truly important to the Latino community, as opposed to the inaccurate values suggested by the stereotypes depicted in other films. For instance, *Spy Kids* emphasizes the importance of family unity, which has been identified by some researchers as one of the most relevant core values in the Latino culture (Añez, Silva, Paris Jr., and Bedregal 2008).

This study uses an ideological approach for the analysis of *Spy Kids*. According to Corrigan (1992), ideological film analysis avoids limiting the discussion of a film to its explicit content. Instead, Corrigan notes that the ideological approach to film questions how cinematic elements are used to convey explicit and implicit messages. From an ideological approach, all the elements of a film, such as framing, lighting, editing, scripting, and sound, convey important messages about the way people relate or should relate to one another and about the way social structure is or should be (Corrigan 1992; Moscowitz 2000; Boggs and Petrie 2000; Ramírez Berg 2002). Some scholars identify the ideological approach as a Marxist approach because it is based on the Marxist assumption that films are a reflection of the economic aspects of a culture and of the struggle for power among social classes (Boggs and Petrie 2000). In addition, Boggs and Petrie (2000)
observe that this type of approach allows us to pose questions about racial issues, dominant views, and social class interaction. Costanzo (1992) notes that the ideological theory of film views art as an instrument for social change. Because this study deals with ethnic stereotyping (racial issues) and countering stereotyping (social change), the ideological approach is well-suited for this examination.

In *Latino Images in Film*, Ramírez Berg (2002) notes that although the stereotypical image itself is the most obvious expression of the stereotype, other elements in films contribute to the enhancement of the stereotypical image. To demonstrate his point, Ramírez Berg examined a four-minute scene from the film *Falling Down* (1993). In his examination, Ramírez Berg separately analyzed the framing, staging, camera movement, angles, editing, music, sound effects, costuming, makeup, set design, art direction, scripting, acting conventions, and lighting used in the scene to argue how each of these elements was used by the filmmaker to enhance his stereotypical depictions of Latinos in the scene. Following Ramírez Berg’s example, this study examines some cinematic elements, such as camera movement, staging, scripting, music, and character development in *Spy Kids* to argue that Rodríguez uses these elements to communicate his ideology and counter stereotypes of Latinos in his film.

Finally, Bordwell (2004) suggests that films should be segmented to facilitate their analysis. *Segmentation* is the process of dividing a film into its major and minor parts; segmentation can be performed by marking the parts with consecutive numbers or letters (Bordwell and Thompson 2004). As suggested by Bordwell, *Spy Kids* was segmented into scene groups. This process facilitated the examination of the film to understand how Rodríguez uses cinematic elements to counter stereotypes throughout the film.

**Results and Discussion**

As previously stated, the present study analyzes the film *Spy Kids* to understand the ways in which stereotypes of Latinos are countered in the film. In particular, this analysis investigates how the filmmaker’s ideology shapes the ways in which he views Latino stereotypes and how he challenges these established stereotypes, such as Latinos being evil-natured, criminals, sadistic, unintelligent, racially-homogenous, violent, lazy, and uneducated. To begin, this analysis examines the first 15 minutes of the film scene by scene to show how Rodríguez lays the foundation to counter stereotypes in his film. Next, the analysis focuses on specific stereotypes and how they are countered in various scenes in the rest of the film.
The opening scene of *Spy Kids* introduces the audience to a mystical, once-upon-a-time-like ambience that communicates that what we are about to witness will be of epic proportions. Rodríguez achieves this effect by giving the opening scene a hazy look that suggests this story is a recollection of a legend. Meanwhile, the camera flies over the ocean along an impressive coastline as it approaches a huge mansion that has the appearance of a castle. The sound of Spanish guitar rhythms helps to convey the message that what is about to happen is related to the Latino culture. As the camera approaches the house, a human figure is visible through one of the windows. When the camera finally reaches the window, we discover a female child, Carmen, looking outdoors in a nostalgic way. Next, the camera goes into the house, revealing a sizeable room that resembles a Spanish castle bedchamber. These images tell the audience that this family is wealthy, countering, right from the beginning of the movie, the prevailing stereotype that Latinos are inherently doomed to financial instability and poverty. In fact, the castle-like appearance of the house suggests that this family is possibly of royal lineage. Then, we discover that the name of the young female child who is looking through the window is “Carmen,” perhaps a reference to the fiery character of the French opera “Carmen,” which takes place in Castilla, Spain, further communicating that these characters are Latinos. The red color of the walls and the reddish tone of the overall environment convey the message that Latinos are passionate and spirited, as opposed to boring and dull. Consequently, through these images, Rodríguez starts constructing in our minds the idea that Latinos can be represented in film as passionate and heroic, countering Hollywood’s stereotypical use of Latinos as sidekicks or unimportant filler characters (Mastro and Behm-Morawitz 2005; Ramírez Berg 2002).

In the next scene, Juni, the young male child in the family, and Ingrid, the mother of both children, are shown. Through these two characters, Rodríguez counters another stereotypical convention in Hollywood’s depiction of Latinos, namely, the stereotype that all Latinos have dark complexions. Although Carmen is fair-skinned, she could possibly be identified as Latina because of her dark hair. According to Hollywood stereotypes, Latinos are dark one way or another; either they are dark-skinned, or even if they are fair-skinned, like Carmen, they are at least brunette. This convention serves the powerful ideological purpose of establishing the superiority and good nature of the white Anglo American hero, as opposed to the dark, evil Latino counterparts (Ramírez Berg 2002). However, Juni and Ingrid are both red-haired (a physical characteristic not generally attributed to Latino characters). We know these characters are Latino because their names are Latino (e.g., Cortez, Carmen, Gregorio), because the male head of the family speaks with a Spanish accent and is
played by a very well-known Spanish actor (Antonio Banderas), because of the use of Spanish language associated with these characters (e.g., a sign that says hombre, a Spanish word for man, that refers to the character played by Antonio Banderas), and because of the use of Spanish rhythms in the music played during the introduction of the Cortezes at the beginning of the movie. In this scene, Rodríguez is not only countering Hollywood’s racial stereotype of Latinos, but he is also communicating the message that Latinos are not a race but an ethnic group bound by culture.

In the following scene, as the kids are getting ready to go to bed, Carmen asks her mother to tell them a bedtime story. Ingrid asks Carmen which story she wants to hear, and Carmen responds that she wants to hear the story of the two spies who fell in love with each other. Ingrid proceeds to tell the story, which is the story of how Ingrid and her husband, Gregorio Cortez, met. Ingrid continues with the story, and rather than telling the kids that the woman’s mission was to kill the man, she says that her mission was “to take the man out,” which young Carmen initially misinterprets as taking him out on a date. Ingrid later clarifies what she really means by “taking the man out.” In this scene, Rodríguez shows a mother who is sensitive to her children’s young ages. Although she is narrating a story about spies, the mother is sensitive about not being gruesome and grotesquely explicit. The way in which Ingrid communicates this story counters Hollywood’s stereotype that Latinos are heartless, evil-natured individuals who take pleasure in other peoples’ pain and who are more prone to violence than others (Woll, 1980; Berumen 1995; Ramírez Berg 2002; Weaver 2005).

Next, as Ingrid narrates the rest of the story, she reveals that rather than “taking the male spy out,” they both fall in love and end up marrying each other. Afterwards, she explains, they decided to quit their careers as spies to raise a family. Raising a family, Ingrid states, is “a compelling and mysterious mission in its own right,” because of all the challenges that people have to face to keep a family together (Rodríguez and Avellan 2001). Thus, through this scene, Rodríguez tells the viewers that family is also important to Latinos. In fact, family is so important that these two high-class international spies decide to quit their life in espionage to raise a family. The affirmation of family as a core value in the Latino culture is also a way to counter the prevailing Hollywood stereotype that Latinos are a disloyal, evil, and heartless ethnic group that takes advantage of the occasion to betray even those who have been good to them (Woll 1980). Through his film, Rodríguez tells us that Latinos are not the evil people Hollywood has frequently portrayed them to be; rather, they are individuals who are capable of being concerned with family unity and values and who may even sacrifice their own careers for the benefit of their families.
Another message is sent through the previously described images: there are Latinos who have the ability to foresee a higher purpose, not just the immediate gratification of their more fundamental desires. This message contrasts with Hollywood’s stereotype that portrays Latinos as slaves of their own emotions and urges. In his film, Rodríguez suggests that Latinos are capable of thinking about the future consequences of their actions and act accordingly. By deciding to leave their espionage careers behind, settle down, and become private consultants to raise a family effectively, Gregorio and Ingrid Cortez show that they have consciously pondered questions about the consequences of having a family while continuing to pursue their careers as spies. They also show that they have consciously decided to do what they concluded to be best for their family’s healthy development.

Another compelling message from Rodríguez involves Ingrid’s recounting of the story where we witness the arrival of various helicopters flying above the wedding celebration whose occupants are looking to destroy the newlyweds. Resisting the destructive forces that want to annihilate them, Gregorio and Ingrid hold hands and jump off a cliff. As they are falling down to the ocean beneath them, their parachutes open up in the form of hearts. Next, they land on a boat and the camera moves to a close-up while they kiss each other. Subsequently, the boat is driven away and the camera moves backwards, creating the effect that the field of view is getting out of a baby’s eye, until the camera captures a close-up of the baby’s face. Afterwards, the camera focuses on Gregorio and Ingrid playing with the baby to let the viewers know that the baby is theirs. This scene counters stereotypes in two ways. First, the baby looks to be white by all conventions: fair-skinned and light-haired, countering once again racial stereotypes that all Latinos have dark complexions. Second, the beginning of the scene where an attack occurs in the wedding celebration serves the purpose of reaffirming the importance of family unity in the Latino culture. Specifically, the scene suggests to viewers that the relationship between Gregorio and Ingrid is powerful enough to withstand future challenges, no matter how difficult and unbearable they may seem, as symbolized by the consummation of the marriage ceremony in the presence of the vicious attack.

After Ingrid finishes telling the story, she kisses both children good night and goes to the master bedroom, which is also enormous and gives the impression of a room that belongs to royalty. Again, Rodríguez uses set design to convey the message that the Cortez family is important. The royal appearance of the master bedroom serves the ideological purpose of communicating to the viewers that Latinos can be dignified and portrayed as noble and majestic.
In addition, the name given to the male lead character, “Gregorio Cortez,” serves two important ideological functions. First, the name honors the memory of a real-life Mexican American folk hero, Gregorio Cortez, who managed to evade the Texan authorities in a persecution that resulted from an apparently unjust accusation of murder, which was actually an act of self-defense. Many Anglo American Texans at the time depicted Gregorio Cortez as a bandit, an arch fiend, and a cutthroat (Orozco n.d.). The story of Gregorio Cortez is an important legend that is part of the cultural heritage of the Mexican American community in Texas, where Robert Rodríguez was born and raised. By naming the lead character in the film “Gregorio Cortez,” Rodríguez vindicates the real-life Texan hero, positioning him as a fighter of evil rather than as an outlaw. Second, choosing Cortez as the last name for the protagonist family serves another ideological function. In Spanish, the term cortés (which in Latin American countries has the same pronunciation as the last name Cortez) means courteous, someone who is polite and kind; consequently, by naming the lead characters “Cortez,” Rodríguez sends a strong message about the good nature of these Latino characters, further countering Hollywood’s stereotypes of Latinos as being inherently evil.

In the following scene, Carmen and Juni are exercising by climbing ropes and monkey bars. Here, Juni complains about having to do this every day even though they already have physical education at school. Although the explicit idea in this scene is that these kids are being prepared for an emergency situation related to their parents’ past life as spies, an implicit ideological message is also embedded. Through these images, Rodríguez tells the viewers that there are Latino parents who are highly educated and have the ability to make choices leading to a healthy lifestyle for their families, such as promoting exercising habits, countering the stereotypes that Latinos are uneducated, less intelligent, and lazy (Mastro and Behm-Morawitz 2005; Woll 1980).

The following scene occurs inside Floop’s castle. “Floop” is the star of a children’s television show; he is also an inventor who is financed by Mr. Lisp and a group of wealthy individuals to develop technologies that they could use to take over the world. Floop has an assistant whose name is Minion (which possibly refers to the real meaning of the word: a subordinate). In previous scenes, stereotypical depictions of Latinos were countered by positioning Latinos as the good characters in the movie. In this scene, the viewers are introduced to the villains of the story, who are white. Although these characters could possibly be Latinos because, as noted earlier, Latinos are not a racial group but an ethnic group, there is no indication in the film that these characters are Latinos. They do not have a Latino name; they do not display any kind of stereotypical Latino customs; they do not possess any
of the physical characteristics stereotypically associated with Latinos, such as dark skin and a big mustache; and the filmmaker does not use Spanish music during the introduction of these characters. Thus, through casting and character development, the filmmaker counters Hollywood stereotypical conventions that position whites as the heroes and ethnic minorities as the villains and evil characters in movies (Keller 1994; Woll 1980; Berumen 1995; Ramírez Berg 2002). By reversing the roles and portraying Latinos as the heroes and whites as the villains in the same film, the filmmaker conveys a powerful ideological message: sometimes the villain is not Latino, and sometimes the hero is Latino.

Up to this point in the film, which is about the first 15 minutes, the director has introduced the audience to almost all the main characters, and he has also countered many of the Latino stereotypes described and discussed previously. In addition, Rodríguez counters gender stereotypes and reaffirms his counter-hegemonic position as a Latino filmmaker. Next, this analysis focuses on how Rodríguez uses cinematic elements to further counter the stereotypes already identified in this study.

In addition to the previously identified stereotypes, Rodríguez counters Latino gender role stereotypes that portray Latino males as overpoweringly macho and Latino females as submissive and servile. In *Spy Kids*, male and females share egalitarian gender roles. For instance, Gregorio and Ingrid decide in a mutual agreement to take on a new espionage assignment. Also, it is Ingrid, the female, and not Gregorio, the male, who finds a way to escape from captivity when they are first captured in Floop’s castle. Moreover, this equal distribution of power is seen among the child characters. Carmen (female child) is depicted throughout the film as an intelligent and powerful leader. For instance, Carmen alone fights all of Ms. Gradenko’s (one of the many villains in *Spy Kids*) bodyguards and her army of “Thumb-Thumbs” (monster-like creatures designed by Minion) in the scene that takes place in the safe-house, and she wins. When she is being approached in the intersection of a tunnel by two Thumb-Thumbs, the camera captures Carmen quickly looking around and thinking of a way to safely avoid the impending danger. Finally, Carmen is always guiding and protecting her younger brother.

In addition, through Juni’s character, Rodríguez further counters stereotypes of Latinos as being evil and unintelligent. Juni (male child) is presented as a smart, innocent, and genuine boy whose pure heart wins over Floop. Juni’s innocence serves the explicit purpose of comic relief throughout the film, such as the time when he knocks himself down trying to free himself from the metal box that he accidentally attached to his wrist. However, the implicit
and strong ideological function of this character is to present Latinos who are honest and morally unaffected, countering the stereotype that Latinos are inherently evil. Gregorio’s character is used in a similar way. For instance, when Gregorio is urged by Floop to collaborate with him in replicating the “Third Brain,” which will make Floop’s robot-kids intelligent and will ultimately help the villains dominate the world, Gregorio shows moral integrity and refuses to help Floop with his malicious plan.

Some scenes also serve the powerful ideological purpose of establishing Latinos as intellectually capable, fighting the stereotypes that Latinos are less intelligent (Mastro and Behm-Morawitz 2005). For instance, a scene that takes place in the workshop of Machete (Gregorio Cortez’s brother) reveals Machete as a Latino male who fits Hollywood’s stereotypical Latino physique. He has dark complexion, a long mustache, and tattoos on his body, yet he is depicted as an extremely intelligent and creative inventor who makes sophisticated spy gadgetry and equipment, from the smallest cameras in the world to state of the art vehicles. Also, Gregorio Cortez is credited in the story as being the inventor of the Third Brain, a highly advanced technological system that replicates the capabilities of a human brain. Another example is a one-on-one confrontation between Juni and Floop in the virtual room, in which the filmmaker uses cinematic special effects to present Floop in gigantic proportions, contrasting with Juni’s diminutive figure, and resembling the mythical confrontation between David and Goliath. In this scene, Juni’s intelligence wins out over Floop’s overpowering size. Through creative persuasion, Juni defeats the evil within Floop, inspiring Floop to find the good within himself. When Floop asks Juni what is missing in his show, Juni responds with innocence and ingenuity, “It needs children” (Rodríguez and Avellan 2001). Finally, a series of camera shots showing everyday life in San Diablo, the city in which Carmen and Juni arrive after they were chased by Ms. Gradenko’s army of Thumb-Thumbs, presents a group of boys who look stereotypically Latino playing chess. Although the shot is quick and may seem insignificant, its ideological content is a powerful statement that affirms the intellectual ability of these Latino children.

Ramírez Berg (2002) observes that through framing and editing rules of proximity, a film can command the viewer to identify with certain characters. Ramírez Berg further notes that, according to Hollywood conventions, the tighter a close-up and the longer a shot stays focused on a subject, the more important that character is. Using these Hollywood conventions, Rodríguez makes ample use of close-ups and long shots on his Latino characters, directing the viewers’ sympathy towards these characters and serving the ideological purpose of establishing this ethnic group as important in mainstream America.
Finally, the importance of family values in the Latino culture is consistently reaffirmed throughout the film, serving the powerful ideological function of establishing Latinos as an ethnic group that possesses positive qualities, such as loyalty, respectfulness, integrity, good character, and good-heartedness, all of which confirm important Latino core values identified by some researchers, such as *familismo* (strong family orientation), *respeto* (respect), and *confianza* (trust) (Añez, Silva, Paris Jr. and Bedregal 2008). For instance, when Ingrid opens the engagement ring box that Gregorio gives her, the filmmaker constructs the scene in a way that an explosion of fireworks in the background coincide with the opening of the box, giving the impression that the content of the box has magical qualities and affirming love and family as fundamental human values that Latinos possess and celebrate. The most powerful testimony to the importance of family in the Latino community is unveiled before the audience in the final scene of the film. In this closing scene, the camera zooms in to capture the Cortez family, and while all the Cortezes face the audience, Carmen states “From now on, whatever we do, we do together. Spy work, that’s easy. Keeping a family together, that’s difficult, and that’s the mission worth fighting for” (Rodríguez and Avellan 2001). The film ends on this scene.

**Future Research**

*Spy Kids* is only one example among a number of films that counter stereotypes of Latinos. Future research could focus on other films by Latinos, including independent films that have not been box office hits but that are important in the history of Latino cinema in the United States. Some examples include *El Super* (1979), *Zoot Suit* (1981), *El Norte* (1982), and *A Walk in the Clouds* (1995). Also, future research could be conducted on how stereotypes of Latinos have evolved from the early “greaser” characters of the silent movies to the most current stereotypical depictions of Latinos. In addition, quantitative and qualitative research could examine the impact of stereotyping and counter-stereotyping of Latinos in films on Latino and non-Latino audiences.

**Conclusion**

Stereotypical depictions of Latinos in American cinema have been abundant, consistent, and mostly negative since the silent movies era of the early 1900s to the present (Woll 1980; Ramírez Berg 2002; Berumen 1995; Keller 1994). It was not until the 1960s and 1970s that Latino filmmakers gained access to means of self representation (Noriega and Lopez 1996). Since then, either explicitly or implicitly, Latinos have attempted to counter the stereotypes
created by many white American filmmakers by portraying Latinos from a Latino perspective. The film *Spy Kids* is an example of these attempts.

In an interview with Ramírez Berg (2002), *Spy Kids*’ director Rodríguez states that his intention as a filmmaker is not to explicitly counter stereotypes in his films but to make movies with exciting storylines that may appeal to mainstream audiences while implicitly interweaving his Latino heritage in his work. He further expressed that he does not want the audience to perceive that he is being overly preachy about his ethnic background. Rodríguez rather wants to appeal to a mainstream audience while including in his films Latinos portraying leading characters, sending the message that Latinos are also part of the mainstream. Rodríguez’s position is in agreement with the ideological approach to film, which dictates that even when not consciously or explicitly intending to communicate an ideology, all films inherently convey one (Zavarzadeh 1991). Whether implicit or explicit, ideological content in films is determined by a filmmaker’s perception of the world and socio-cultural background. This study argues that, through the use of cinematic elements, Mexican American filmmaker Robert Rodríguez implicitly counters stereotypes of Latinos in his film *Spy Kids* and establishes his counter-hegemonic position as a Latino filmmaker.

As suggested by Rivadeneyra, Ward, and Gordon (2007), media exposure to negative stereotypes of Latinos may be related to lower self-esteem in Latino young adults. Consequently, by countering negative stereotypes and portraying Latinos in a positive way, Latino filmmakers may be empowering Latinos, particularly young adults, with more positive self-esteem and a sense of fully belonging to American society and the American story. Finally, and most importantly, by countering stereotypes, Latino filmmakers may be establishing themselves as instrumental figures in the fight against prejudice and racism in America.
REFERENCES


DOES EXTRACURRICULAR ENGAGEMENT PROMOTE ACADEMIC SUCCESS? A COMPARISON OF THE LEVEL OF EXTRACURRICULAR ENGAGEMENT OF COLLEGE ASSISTANCE MIGRANT PROGRAM PARTICIPANTS AND THE GENERAL STUDENT POPULATION AT CSUS

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ABSTRACT
The body of research that focuses on students in the College Assistance Migrant Program (CAMP) is limited, but the existing research shows that CAMP students, despite entering the university facing threats to their academic success, still reach higher academic achievement than their same year peers. This research uses secondary data and interviews to compare the level of extracurricular engagement of CAMP students to non-CAMP students at a metropolitan state university in Northern California. The present study examines the possible influence of non-CAMP extracurricular activities on the success of these students.

In the United States and in many other places in the world, success and attainment are measured by level of education. While the number of Latinos enrolling in institutions of higher education has increased, it remains a small portion of the total enrollment (Chapa 2004). The small percentage of Latinos who do pursue higher education often are faced with more challenges than their peers. Research suggests that “for Latino students, academic readiness is only one component that is necessary for a successful collegiate experience” (Mina 2004, 79).

The federally funded College Assistance Migrant Program (CAMP) is an example of a support program that helps many students accomplish their educational goals. Data shows that since 2000, the CAMP program at the California State University, Sacramento (CSUS) has served about three percent of all incoming first-time freshmen each year, the majority of whom are Latino. The program offers pre-college transition to college and first-year support services that help the students graduate (College Assistance Migrant Program 2008).

Studies consistently show that students benefit both academically and politically from being engaged in extracurricular activities; however there has
been no research that focuses on the level of extracurricular engagement of students in CAMP. Comparing the level of extracurricular engagement of CAMP students and their academic achievement to the general CSUS student population will provide insights into whether participation in extracurricular activities is beneficial to this group of students as well. Having these answers will help clarify the role of increasing engagement of students in extracurricular activities on academic achievement.

After examining literature and previous studies on student participation in extracurricular activities, it became apparent that the existing literature does not yet cover specific groups of students. Therefore, interest in the role that extracurricular participation has on a group of university students was the motivation for this research. The purpose of this research is to examine the possible role that extracurricular activities plays for students in the College Assistance Migrant Program at California State University, Sacramento. This study attempts to answer the following two questions: 1) Do CAMP students participate more or less in extracurricular activities than other students who entered the university in the same year? 2) What relationship exists between participation in extracurricular activities and the educational success of students in the CAMP program? Having answers to these questions may help researchers better understand the extent to which engagement in extracurricular activities helps CAMP students succeed academically at the university.

**LITERATURE REVIEW**

The United States is one of the most diverse countries in the world. The diversity can be seen through the demographics of many public schools in this country, especially in California. However, in the education system there is a discrepancy in academic achievement among different ethnic groups of students. Hispanics, for example, fall behind their non-Hispanic peers in academics (Gary 2008). This discrepancy, which is often present since early childhood, also persists in higher education. Statistics show that, even though the percentage of Latinos attending institutions of higher education in the United States has increased, they still make “less than 10% of total enrollments in 2-year, 4-year, and graduate institutions” (Chapa 2004, 142) even though they make up 17% of the 18-24 year old population (U.S. Census Bureau 2008).

Among the group of Latinos are migrant students who face additional obstacles in their educational pursuit. Migrant students move from school to school during the year as they follow their parents’ pursuit of seasonal work (California Ed. Code 2008, Section 54440). Even though not all
migrant students are Latinos, the great majority of the migrant students (or their parents) are from Mexico (Gibson 2002). During their K-12 education, migrant students face serious obstacles because migrant students “tend to move frequently, attend school irregularly, and suffer health defects and language handicaps which significantly inhibit their progress in school” (California Ed. Code 2008, Section 54440).

However, many migrant students have great potential and many are very determined to advance their education. Migrant students can be successful if they receive the help they need to overcome the extra barriers that they face as migrant students. Common factors shared by migrant students (including limited parental education, learning English as a second language and living below the poverty level) can cause migrant students to fall behind their peers in academics. Another factor that creates a much greater hardship in the education of migrant students is their frequent mobility (Gibson 2002). Following seasonal work often results in families moving more than once a year from state to state or within different school districts of a state. Other migrant families migrate interchangeably between Mexico and the United States, staying part of the year in Mexico and part of the year in the United States (Gibson 2002). The impact on the migrant student is that each move represents the need to adapt to a new school, to changing academic expectations, and to new teachers and peers. Furthermore, migrant students are absent from school between the moves and during the enrollment process.

These disadvantages often hinder migrant students’ eligibility to enter a post-secondary education. Those who do enroll in an institution of higher education are perhaps not as likely to continue moving with their family following seasonal work because attending a university requires the student to be more stable. For the less than 10 percent of Latinos who transition into a college or university, “academic readiness is only one component that is necessary for a successful collegiate experience” (Mina 2004, 79). For these students, other factors like family, community, peers, and the institution that they attend play an important role in their educational experience (Mina 2004).

Some students of migrant background have the benefit of attending institutions of higher education that offer CAMP, in which they may enroll. There are eight higher education institutions in California offering CAMP (Santiago Canyon College 2008). CAMP is a federally funded program that “assists students who are migratory or seasonal farm workers (or children of such workers) enrolled in their first year of undergraduate studies” (U.S.
Each year CAMP serves about 2,000 students in the United States (U.S. Dept. of Education 2009).

One of the institutions offering CAMP is CSUS. At CSUS, CAMP helps freshmen “make the transition to college life during their first year at Sacramento State and assists them in developing the skills needed to stay and successfully graduate from the university” (OIR CAMP Assessment Report 2008). A study done by the Office of Institutional Research (OIR) at CSUS shows that CAMP participants usually enter CSUS with lower high school grade point averages (GPAs) and lower Scholastic Aptitude Test (SAT) scores than the rest of the first-time freshmen cohort. However, after their first year in college, CAMP participants obtain a higher average GPA than the general CSUS first-time freshmen cohort. Furthermore, a higher percentage of CAMP participants are in good academic standing after their first year in college. For example, in the 2007 cohort, 88% of CAMP participants were in good academic standing compared to 76% of the rest of the 2007 CSUS cohort students who were not in an equity program (OIR CAMP Assessment Report 2008). The report also shows that from 2001 to 2007, the retention rates for first to second year CAMP students were significantly higher than other first-time freshmen groups. The conclusion of the OIR report regarding the CAMP programs is that “it is quite apparent that this program is providing significant assistance to its students” (OIR CAMP Assessment Report 2008).

The CSUS OIR also analyzed the relationship between participating in extracurricular activities and the academic performance of CSUS students. After reviewing literature that showed that extracurricular activities had a positive impact on students’ academics, OIR decided to conduct research to see if this positive relationship was also true of CSUS students who were involved in extracurricular activities (Office of Institutional Research 2009).

Much of the literature reviewed for the OIR study also showed the positive relationship between participating in extracurricular activities and the academic success of students. The literature shows that at the high school level, in some cases, extracurricular activities have negative or no effect on academic achievement. In this setting, the negative relationship between extracurricular activities and academic achievement results when the student’s school does not sponsor the activities. A negative relationship can also exist when the student engages in so many extracurricular activities that they distract the student from focusing on academics (Gilman, Meyers, and Perez 2004). However, most research indicates that participation in extracurricular activities at the high school level helps students increase their academic achievement. Extracurricular activities, especially sports and fine arts, help the
student stay engaged in school (McNeal 1995). Extracurricular activities also increase a sense of connection to the student’s school, and can be especially beneficial to those students who are at risk of dropping out of school due to disengagement. Engagement in extracurricular activities is beneficial because it provides the student with positive experiences and an increase in school satisfaction (Gilman, Meyers, and Perez 2004).

The literature also shows that a similar relationship between extracurricular activities and academic achievement exists in institutions of higher education. Research shows that civic engagement can also increase the student’s learning during her or his undergraduate studies (Chapa 2004). Extensive research has been conducted by George D. Kuh, Chancellors’ Professor of Higher Education at Indiana University, director of the Center for Postsecondary Research and founder of the National Survey for Student Engagement. Kuh has conducted research focused on the many ways of encouraging student learning. One particular study conducted by Kuh focuses on the relationship between participating in extracurricular activities and the grades and persistence of students. This study concluded two very important findings. One of the findings was that “student engagement in educationally purposeful activities is positively related to academic outcomes” (Kuh 2008, 555). Kuh also found that “engagement has a compensatory effect on first-year grades and persistence to the second year of college at the same institution” (2008, 555). This finding is relevant to the present study since Kuh states that engagement is especially important to help students who start school with risk factors such as “being academically under-prepared, or first in their families to go to college or from low income backgrounds” (2008, 555), which are all categories that apply to most CAMP participants when they begin college.

However, there has not been much research that compares CAMP student engagement in extracurricular activities to the general student population at CSUS. The previously discussed OIR study already shows that the retention rates and academic achievement of CAMP participants is higher than other students of the same year (OIR CAMP Assessment Report 2008). It is important to now explore whether the academic achievement of the CAMP students is related to their engagement in extracurricular activities. It is also important to analyze if CAMP should focus on engaging its students in extracurricular activities that will foster a better sense of connection with their school.
METHOD

To make a comparison between CAMP students and their peers at CSUS, two types of methods were used in this research. A qualitative approach (in-depth interview) was used to gain a more insightful view of the experiences of CAMP students in regards to participation in extracurricular activities. A quantitative method was used to compare the level of extracurricular activity participation of CAMP students with the level of non-migrant students at CSUS.

Qualitative Interview: Process and Selection

Before the interviews were conducted, the researcher obtained human subjects approval from the CSUS Department of Public Policy and Administration. The pool of interviewees for this research included students who were enrolled in CAMP during their first year at CSUS between the years 2004 and 2007. Eight of the participants for the interviews were selected through a process of simple random sampling. The random sample was taken from a list of the students enrolled in the CAMP program provided by the CAMP director. The list separated the students by the year in which they entered the program as first-time freshmen. For each year, the students were listed in alphabetical order by last name and the random sample was taken from this list. A random list of students was created but only two individuals from each year were interviewed. Four separate random samples were conducted to select students from each year using the same process. The list included students from academic years 2004-2005, 2005-2006, 2006-2007, and 2007-2008. These years were selected for two reasons: (1) These are the years used in the comparison OIR research; and (2) Most of the students in these cohorts are still enrolled at CSUS, which allows for possible beneficial feedback from the most current students. It was also the most accessible method for this study because participants are likely to live relatively local in relation to the CSUS campus.

The two individuals from each year were selected using the same process described previously. Starting at the top of the list of the names selected by running the random sample, the students were called at the telephone numbers provided by the CAMP office. The researcher selected the first two students to interview who met the following criteria: 1) contact is made; 2) the student is still enrolled in or has graduated from CSUS; and 3) the student can meet at a date, time and location accessible to both the participant and the researcher. Also, the interviewees had to have been enrolled in CAMP as a freshmen/first-year college student at CSUS between the years 2004 and 2007.
Eight other CAMP students were selected to participate in interviews for this study. Once again, the two participants from each year from 2004 to 2007 were selected. This time the participants were selected based on a non-random basis. The researcher asked the CAMP staff for the recommendation of students who had been active in extracurricular activities and in their campus community. The researcher decided to interview eight other CAMP students selected on a non-random basis to create a larger sample with a better chance of being representative of the experiences of CAMP students. There would have been a high likelihood that the two students selected from each year both were not active in extracurricular activities, and, therefore, not representative of the experiences of those who do participate. The eight participants selected based on the recommendation by CAMP staff were asked the same interview questions as the other participants, but were also questioned to obtain a knowledge of some factors that contribute to positive educational experiences. The interviews were conducted after the participants read and signed the consent form provided by the researcher. Given the consent of the participant, the interviews were audio-recorded to then be transcribed.

Qualitative Method

The first method consists of a qualitative analysis of the testimonies of CAMP students interviewed. This qualitative analysis is used to examine individual experiences of CAMP students in regards to their participation in extracurricular activities. The goal of this method is to examine the students’ perspectives on participating in extracurricular activities and the positive or negative impact that it has/had on their experiences as students. The participants were asked if they had participated in any extracurricular activity during their college career at CSUS. They were told that for the purpose of this research, extracurricular activities could include student body government board membership, being a residence hall associate, an orientation leader, or a student club participant. If the students answered ‘yes’ to this question, they were then asked the following questions:

1. How did you become involved in these extracurricular activities?
2. Do you believe that participating in these extracurricular activities has or has not had an impact on your educational success? Why?
3. Can you describe a situation in which you believe being part of an extracurricular activity helped you overcome a difficult situation?

The answers to these questions illustrate the ways in which participation in such activities is beneficial to the students and the ways in which participation might be a disadvantage. Participants who said that they do not or did not
participate in extracurricular activities were asked the following question: Is there a reason why you did not participate? This question illustrates any contributing factors that prevent students from participating in extracurricular activities or if non-participation is voluntary.

Quantitative Method
The second method consists of collecting quantitative data that was useful to make a comparison between the levels of engagement of CAMP students in extracurricular activities with the level of engagement of non-CAMP students at CSUS. The quantitative data was collected in two forms. Some quantitative data was collected from the interviews conducted. Another form of quantitative data was secondary data provided by the CSUS OIR. CAMP contributed to the research by providing the OIR with the student identification numbers of students enrolled in the CAMP program in freshmen cohorts 2004 to 2007. Once the OIR received this data, it was then examined to find out how many of the participants in extracurricular activities at CSUS are CAMP students. The ratio of CAMP participants in extracurricular activities was compared to the ratio of non-CAMP participants in extracurricular activities to see if the level of participation of CAMP students is higher or lower than their non-CAMP CSUS peers.

Results
Interviews were scheduled and conducted from June 11, 2009 to June 17, 2009. The interviews were conducted at locations that were the most accessible to the participant and that the researcher could accommodate. Most of the interviews took place at the CSUS campus, but some were conducted at local coffee shops, the researcher’s home and one was held at a student’s home. All of the interview participants gave their consent to have the interview audio-recorded. The researcher was able to take brief notes during the interviews and then used the audio recordings to complete the interview notes. Figure 1 shows the results of interview questions with “yes” and “no” answers. The first bar to each question represents the number of participants who answered “no” to the question. The second bar represents the number of participants who answered “yes” to the question.

Figure 2 shows the results for a set of interview questions where the participants were asked to use the scale to respond to the questions. The results show that the participants do not generally engage in discussions about politics at home, but most do attend campus events and activities “quite a bit.” Furthermore, these results show that most participants feel that CAMP emphasizes attending campus events and activities more than their institution does. Furthermore, the results displayed in Figure 2 show
that most participants feel “quite a bit” or “very much” connected to their campus.

![Bar chart](image)

**Figure 1.** “Yes” and “No” answers to interview questions.

![Bar chart](image)

**Figure 2.** Interview question results.

In addition to the questions shown in the figures, interview participants were asked about their parents’ highest level of education. The answer options were: 1) some high school; 2) graduated from high school; 3) some college; 4) completed a 4-year college degree; or 5) completed a professional degree. Because the parents of many interview participants did not complete their education beyond the elementary level, they did not fit into any of the categories. Therefore, for the purpose of the analysis, another category, “did not reach high school” was created to measure the number of participants.
whose parents did not go to school beyond elementary school. In fact, the students interviewed are the first generation in their families to attend college and therefore neither parent of the students has attended college. Fourteen out of sixteen mothers of the participants did not reach high school and only one of the two who did attend actually graduated from high school. Thirteen out of sixteen participants’ fathers did not reach high school and again only one of the three who attended high school graduated.

Qualitative Results
When interview participants were asked if they participated in an extracurricular activity as defined by the researcher, participants who answered “yes” were asked if they believed that participating in these extracurricular activities has or has not had an impact on their educational success. This open-ended question was one of the most important interview questions. In general, most participants answered that extracurricular activities does have an impact in their educational success. While it would be difficult to explain the testimony of each interview participant on why extracurricular activities has had an impact on their education success, the following is an example of what was shared by one of the interview participants:

There is always positives and negatives. The negative is that you put more time in extracurricular activities and organizations that minimizes your time to study. There is always the positive that is that you develop what they call the soft skills and being able to demonstrate through extracurricular activities that you are able to handle a lot of things and be balanced.

This testimony, the most representative of how most participants responded, included both arguments. From the testimonies of the participants it can be concluded that engagement in extracurricular activities can be both beneficial and distracting to the education of CAMP students. This finding is similar to what previous studies have shown about students in general. However, the results of the present study show that even though there might be some negatives, the benefits of CAMP students being engaged in extracurricular activities outweigh the negatives.

Students who are participants in extracurricular activities were also asked if they could describe a situation in which they believe being part of an extracurricular activity helped them overcome a difficult situation. This question was difficult for the participants to answer. Most of the participants said that they believed that being part of organizations has helped them; however it was difficult to remember a particular situation. One of the
students, however, shared that, “Yes. It helped overcome the fear of actually going out there… you get that fear of not know if you can make it because you are afraid that you are going to fail, and when you actually get out there and get involved you build more confidence.”

Those students who said that they did not participate in extracurricular activities during their college career were asked if there was a reason why they did not participate. The answer was that they were involved in other activities that are not considered extracurricular activities as defined by the present study.

Secondary Data Results
The results include data for freshmen cohorts from 2004 to 2007. Table 1 shows the results for the rate of participation of students in CAMP, for Hispanic students not in CAMP and all other freshmen at CSUS. Students were considered participants of an extracurricular activity if they were part of student body government board membership, were a residence hall associate, an orientation leader, or a student club participant. An overall extracurricular activity participation ratio of 9.7% was found for CAMP students versus 5.2% for all other CSUS freshmen. It also shows that CAMP students participate in extracurricular activities at a higher rate than other Hispanic students at CSUS.

<table>
<thead>
<tr>
<th>Comparison (2004-2007 Freshman Cohorts)</th>
<th>CAMP</th>
<th>Hispanic</th>
<th>All Freshmen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>42</td>
<td>65</td>
<td>496</td>
</tr>
<tr>
<td>Population</td>
<td>432</td>
<td>1300</td>
<td>9549</td>
</tr>
<tr>
<td>Rate</td>
<td>9.7%</td>
<td>5.0%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Difference</td>
<td>4.7%</td>
<td>4.5%</td>
<td></td>
</tr>
</tbody>
</table>

Note: Each group is mutually exclusive. Source: Office of Institutional Research (2009)

Table 1. Rates of participation.

Analysis
After gathering the data and conducting interviews, a pattern was observed by the researcher. Furthermore, a deeper understanding of the lives of CAMP students was obtained from each individual interview. Students shared their level of engagement in extracurricular activities and the impact that participating or not participating has had in their educational career.

The researcher observed that the students who were very involved in school and community were also the students who expressed a positive connection with CAMP. Many of the students shared that they were encouraged by
CAMP staff and alumni to participate and be active in extracurricular activities and events.

Based on the data collected by OIR, CAMP students have a higher rate of participation in extracurricular activities than non-CAMP freshmen cohorts from 2004 to 2007. The data also shows that CAMP students have a higher rate of participation than other Hispanic freshmen in the same year cohorts. The population and rate of participation of each group is outlined in Table 1. The data also shows that most of the students are engaged in clubs rather than other extracurricular activities. As mentioned in the literature review, a report on CAMP conducted by the OIR found that, on average, CAMP students have a higher GPA than the rest of the students at CSUS. Furthermore, all the CAMP students interviewed have a 2.5 or better GPA. When the participants involved in extracurricular activities were asked if they believed that participating in extracurricular activities did or did not have an impact on their educational success, the majority said that participating did have a positive impact on their educational success. Some participants said that even though being involved in extracurricular activities takes time, there are numerous ways in which participating is beneficial. Most of the students who were participants in extracurricular activities also had jobs, but many interviewees expressed that being involved helped them with their time management. Being involved also helped the students stay focused in their studies if they wanted to have time to participate in other activities.

**Limitations**

One of the limitations of this research is that the secondary data used does not include participation rates for students after the first year of college. The data collected by OIR shows the participation rates for freshmen only, and this research does not take into account that perhaps more students join an extracurricular activity after their first year once they are more acquainted with college. It is also possible that after the first year students become busy with other tasks that leave less time for extracurricular activities, resulting in a lower rate of participation. However, to be able to compare CAMP students to other CSUS students, it is necessary to make a comparison among the same grade level of students. Therefore, this limitation leaves room for further research that focuses on whether students participate in extracurricular activities more or less after their first year in college.

Another limitation in the present study is that it is based on a single campus using a small data sample so the research can not generalize too far. It is possible that there are other factors not taken into account in the present research that may play a role in the academic achievement of the CAMP
students. However, the present study sets a foundation to focus on this student population and expand on the current research.

A third limitation in the present study is that it excludes other forms of extracurricular activities that do not fall under the definition of extracurricular activities for this study. The present study was limited to defining extracurricular activities by four categories. Some students participated in extracurricular activities that did not fall under any of the four categories available, and so were not recorded as such.

**Future Research**

The findings and limitations of the present research open the doors to topics for future research. Interest in the migrant student population could lead researchers to an interest in conducting further research that focuses on the relationship between extracurricular activities and this population’s academic achievement at all levels of education. Further research that addresses this relationship among migrant students is necessary at the high school, middle school and elementary school levels. It is important to examine at what level of a student’s education extracurricular activities begin playing an important role. There is a need to expand existing research addressing K-12 students, focusing particularly on the needs of migrant students.

Although there is a need for future research in other levels of education, there is still ample room for research at the university level. Future research that considers other forms of engagement (internships, jobs, civic engagement) that may have a positive relationship with the academic achievement of CAMP students is also of interest. Furthermore, the interview findings for the present study shows that fifty percent of the students interviewed are part of a Greek organization, either fraternity or sorority, at CSUS. Many of the participants focused on their participation in their fraternity or sorority to express how extracurricular involvement has impacted their success. The present findings open future research possibilities that focus on the effect participation in Greek organizations has on students in CAMP.

**Conclusion**

The present study shows a high level of CAMP student participation in extracurricular activities at CSUS and the ways in which they benefit from participation during their educational attainment. Based on the testimonies of the students interviewed, the researcher can conclude that participating in extracurricular activities builds resilience to stay focused in academics and
build a sense of connection with their campus. These findings are important to help increase retention and graduation rates of CAMP students and Latino students in general. Helping examine ways in which CAMP can help the students is also beneficial because the program can become a model program for other retention programs. There are other programs at the university that serve minority students with similar characteristics as CAMP students, which can benefit from the present study.

Based on these findings, the researcher recommends that CAMP increases its focus on engaging students in extracurricular activities as a form of fostering school connectivity in the first year. Creating a connection to school through extracurricular activities can be beneficial in the long run because retention rates may increase along with the grade point averages of its students. For CAMP students, a sense of belonging at the university that can come from participation in extracurricular activities can determine whether some students stay in school or drop out, making this an important factor in the academic success rates of Latinos, and, likely, other students.
REFERENCES


SURVIVING THE BLAST: STRESS, COPING 
AND THE SINGLE PARENT FAMILY

Kellie M. Painter
Faculty Mentor: Dr. Lisa Tavano-Hall

ABSTRACT

Children from single parent homes live with many new types of challenges bringing elevated levels of stress that they must live with on a daily basis. This study measured differences in the coping strategies of locus of control and assertiveness in 105 undergraduate students at a large California state university who were children of divorce raised in single parent homes. Analysis of survey data revealed that children whose parents were divorced more than seven years had significantly greater internal locus of control and were significantly more assertive than children whose parents were divorced less than seven years. There was also a significant and negative correlation between these two coping strategies, leading to the conclusion that these individuals may be developing more healthy coping strategies.

Historically, the most salient part of any society is its family unit. Since the first no-fault divorce legislation in the United States in the early 1970s, the American family unit has undergone many changes. Research has advanced over the decades since divorce rates and the number of single parent families began to rise, producing evidence leading to opposing conclusions regarding the effect on children of divorced parents. The social and developmental impact of fatherless homes (Santrock 1972, 455) versus a decrease in domestic conflict that occurs after divorce (Garfinkel and McLanahan 1986, 1) produced a disagreement concerning how, or if, children of divorce could develop normal social and coping skills.

Coping with stress on a chronic or acute level requires the development of coping and defense mechanisms. One of the coping mechanisms that people use is our perception of our control of our environment or situation, which can be a very important factor in an individual’s assessment and defense during stressful events and in stressful surroundings (Blonna 2007, 329; Compass et al. 1991, 23; Kobasa 1979, 1). This concept of locus of control (LOC) emerged from research done by Rotter in 1966. Rotter, using the Locus of Control Scale that he developed, measured an individual’s perception of the extent to which one feels that he/she has control over events in his/her life. Rotter found that those individuals with a high external locus of control felt that others, or fate or even luck, affect the stressors they
encounter. Individuals with a high internal locus of control view themselves as being responsible for the events and stressors in their lives. According to Lazarus, locus of control is the foundational coping mechanism that all individuals use as a filter when choosing which coping strategy to use when encountering stressful events and circumstances in life (Lazarus, 1966, 28; Lazarus 1999, 288; Lazarus and Folkman 1984, 117). Therefore, for the present study this researcher measured an individual’s locus of control as an indication of the differences in coping mechanisms in children of divorce.

Another coping mechanism proposed is assertiveness, which is a constructive coping mechanism that individuals with either an internal or an external locus of control acquire and use as a skill for coping with stress. Often confused with aggression, individuals use assertiveness as a way to look out for their own best interest when dealing with stressful situations and the daily hassles of life. Because the researcher in the present study proposes that the type of locus of control an individual has influences the choices made when deciding which acquired coping skill to use when encountering stressful situations, the researcher chose to measure assertiveness as well as locus of control.

**Literature Review**

In the 1970s, research studies of single parent homes provided evidence that the absence of fathers in the home had a detrimental effect on cognitive development, identity issues, and possible long-term academic achievement. The researchers concluded that fatherless homes had a negative effect on children and how they cope with stress (Santrock 1972, 455; Hetherington 1973, 47; Shinn 1978, 295). By the 1980s, researchers began to present evidence indicating that single parenthood had only marginal effects on social and behavioral functioning of children (Garfinkel and McLanahan, 1986, 1; Teti and Lamb 1989, 499). In fact, Hetherington, Camamara and Featherman (1983) argued that the reduction of domestic conflict and acrimony seemed to be such a positive change that the single parent home that emerged from the divorce seemed to function better than the original dual parent unit functioned before the divorce (Hetherington, Camamara and Featherman 1983, 205). By the 1990s, however, evidence from several longitudinal studies, as well as multiple case studies, led researchers back to the original conclusions that the effects of divorce were negative (Amato and Booth 1991, 895; Amato and Keith 1992, 26).

Researchers then began to compile evidence that children from single parent and divorced families did show patterns of both psychological and social adjustment difficulties, as well as academic problems, symptoms of depression and lower self-esteem (McLloyd 1990, 311; Coontz 1992, 1;
Ahrons and Miller 1993, 441). Based on these findings, it has become a well-established premise that divorce is not just a static incident, but a dynamic process that continues long after the divorce conflict ends (Elder 1994, 4; Amato 1999, 147; Wallerstein 1985, 116; Wallerstein and Lewis 2004, 350). Most researchers studying divorce and its consequences on the family agree that the recovery process continues well past the official date of the divorce. However, researchers disagree and debate about how those consequences present themselves. Some researchers focus on a “positive recovery” experience of divorce, while others point to an “impacted recovery” experience.

Researchers on one side of the debate have argued that divorce has the most detrimental impact on children within the first few years post-divorce (Hetherington 1999, 93; Amato, Loomis and Booth 1995, 895). However, some researchers conclude that after four to seven years, the children tend to develop patterns of behavior, coping mechanisms, and attitudes similar to their counterparts in a dual-parent, intact home. The researchers investigating this idea of a positive recovery compiled a sizeable amount of compelling evidence to support the idea that this recovery is not only a positive one, but does indeed occur within a few years after the divorce (Demo 1992, 104; Hetherington, Stanley-Hagan and Anderson 1989, 303; Schick 2002, 5; Amato and Cheadle 2008, 1140).

Hetherington (2002), one of the landmark researchers in this area, provided an extensive amount of evidence to support these findings in her 30 years of research in this field. In an overview of case studies, personal interviews and clinical evaluations with over 140 families about their progress before, during, and after divorce, as well as her follow-up with the children in these families well into adulthood, Hetherington writes, “…the vast majority [of children of divorce] are adjusting reasonably well six years after divorce” (p. 159). However, not all researchers hold the same optimistic view of post-divorce recovery outcomes for children. Many researchers agree that divorce impacts an individual long into adulthood, but disagree that the recovery ends with positive outcomes (Wallerstein 1985, 116; Bilbarz and Raferty 1999, 321).

The researchers on the impacted recovery side of the debate have compiled evidence from longitudinal case studies, clinical evaluations, and meta-analyses of the literature that leads them to conclude that, regardless of the amount of time post-divorce, children of divorce never really present behavior patterns or social adjustment that resemble their counterparts in a dual-parent, intact home (Wallerstein 2005, 401). Additional studies done in scholastic settings have lead researchers to also conclude that there is a disadvantageous impact on both academic achievements and coping skills in

Wallerstein, one of the landmark researchers on the impacted recovery side of the debate, coined the phrase *the overburdened child* (1985, 116), which she claimed was the role that children of divorce played throughout their childhood. According to Wallerstein, this pattern was the result of the multiple changes in responsibility that children lived through during and after a divorce. This role brought with it an undesirable and dysfunctional pattern of coping that followed them well into adulthood and ultimately into their adult relationships. In 2000, Wallerstein and Lewis reported results from a 25-year longitudinal study of 131 divorced families that supported their earlier predictions that the effects of divorce would follow an individual well into adulthood. Personal interviews and case studies of these families provided a compelling amount of evidence indicating that these individuals had developed maladaptive attitudes and dysfunctional social skills that included inadequate coping mechanisms, as well as various adult relationship issues.

Within all the affects and effects presented in the research of single parent family structure that researchers study, they emphasized increased stress as one factor that parents and children must live with on a daily basis (Johner 2007, 89; Kelly 2007, 35). With inflated levels of stress before, during, and after the divorce, multiple coping skills are necessary to deal with the stressors and stressful situations that arise. As a result, the concept of coping with stress has been the subject of multiple studies over the years (Blonna 2007, 53; Lazarus 1966, 288; Lazarus and Folkman 1984, 117).

When we are in control of events, we tend to find them less stressful, thus a locus of control is developed very early in childhood and becomes a filter through which we process our appraisals of potential stressors (Blonna 2007, 329; Sandler, Kim-Bae and MacKinnon 2000, 145). Strickland (1989) produced evidence that led her to conclude that those individuals with an internal locus of control tended to cope with stress more efficiently. Kim, Sandler, and Tein (1997) concluded that the perception of control in a child from a single parent home, especially if they also witnessed the conflict of divorce and separation, tended to produce an external locus of control. They proposed that this perception of an external locus of control continues through childhood and into adulthood and becomes a pervasive part of the individual's personality leading them to feel that because they could not control their family unit structure during childhood, nothing else is controllable in their life either (Weyer and Sandler 1998, 27). Additional studies have revealed evidence indicating that children from single parent homes, especially those from divorced homes that contained high amounts
of parental conflict, tend to retain a very high external locus of control that makes it especially difficult for them, as adults, to accept responsibility for many of the outcomes they create. These individuals also report increased rates of anxiety and depression as well (Sheets, Sandler and West 1996, 2166; Sandler, Kim-Bae and MacKinnon 2000, 336; Johnson and Saranson 1978, 205).

Traditionally, researchers proposed that an individual primarily depended on just one coping strategy/defense mechanism when dealing with stress; however, the last two decades of research has revealed evidence for the premise that an individual best copes with stress with the incorporation of more than one acquired skill or mechanism (Blonna 2007, 42). Because this researcher proposes that the type of LOC an individual has (internal versus external) influences that type of coping strategy an individual chooses when encountering stressful situations, another coping skill, assertiveness was chosen for study. Assertiveness is defined as “a healthy way of expressing your thoughts and feelings directly and honestly” (Weiten and Lloyd 2003, 204). The use of assertiveness is considered as a way to take control over a situation as opposed to being submissive and thereby avoiding the opportunity to take control over a stressful situation (Galassi, DeLo, Galassi and Bastein 1974, 165; Ames 2008, 32).

STATEMENT OF PURPOSE

The intent of this study was to compare the differences between the use of locus of control and assertiveness coping skills from families at least seven years past divorce (seven-plus) and individuals whose families were less than seven years past divorce (less-than-seven). The researcher measured participants’ perceived control in different situations and their use of assertiveness during stressful events with scales designed for this purpose. If Wallerstein and others are correct in their view of impacted recovery, then upon comparison there should be no significant differences in LOC or use of assertiveness between the less-than-seven and the seven-plus individuals. However, if Hetherington and others are correct, and seven-plus individuals do exhibit positive recovery, then a comparison of LOC and use of assertiveness should produce significant differences between the two groups.

RESEARCH QUESTION

In consideration of the results of the past studies, the researcher hypothesized that the two different types of family structure, less-than-seven, versus seven-plus, would produce significant differences in LOC. Specifically, the LOC for the less-than-seven group will be external and the LOC for the
seven-plus group will be internal. It is also hypothesized that, overall, the higher the assertiveness scores in an individual the more internal the LOC in the individual.

**Method**

The following details the methods used in the present study.

Participants

The group of participants consisted of 105 undergraduate students (71 females, 34 males) enrolled in psychology classes at a large state university in California. Participants received class credit towards fulfillment of their respective courses as reimbursement for participating in this study and were treated in accordance with the American Psychological Association’s principles of ethical treatment of human subjects. Because of the debate between positive recovery and impacted recovery, the researcher divided the participants, who were all from single parent families, into two groups. One group consisted of individuals whose parents have been divorced for more than seven years (seven-plus). The other group consisted of individuals whose parents have been divorced less than seven years (less-than-seven).

Materials

*Demographics*—The researcher gave the participants a demographics sheet with questions regarding age, gender, grade point average, marital status of parents, birth order and other questions used to disguise the purpose of the gathered information. The only questions of interest were those regarding gender, family structure, and the number of years the participant had lived with a single parent.

*Locus of Control*—The inventory used to measure the locus of control for each participant was Rotter’s Locus of Control Scale (Rotter 1966, 1). This inventory is a 29-item scale with scores ranging from 0 to 29. Scores closer to 0 indicate an internal locus of control; scores closer to 29 indicate an external locus of control.

*Assertiveness*—The inventory used to measure the level of each participant’s overall assertiveness was the College Self Expression Scale (Galassi et al. 1974, 165), a 50-item Likert scaled inventory with five anchors: 0 = always, 1 = usually, 2 = sometimes, 3 = seldom, and 4 = never or rarely. Half of the items are reversed scored. There are three levels of assertiveness: *Assertive* (146-200), *Intermediate* (104-145) and *Non-assertive* (103-0).
Procedure
When the participants arrived, the researcher asked them to sit down and then provided them with consent forms to sign. After the participants signed the consent forms they returned them to the researcher who placed the consent forms into a separate envelope so that the researcher could not link this information to individual participants. The researcher gave each participant his/her packet of materials. The researcher instructed the participants not to place their names or any other identifying marks on the materials. The packet of materials contained a demographic sheet and the two inventories described previously. The researcher arranged the demographic sheet and inventories in random order for each participant before the study began.

After the participants completed the inventories, the researcher collected the packets and kept them separate from the consent form envelope. The researcher then orally debriefed the participants, answered any questions they had at that time, and handed out a debriefing sheet for the participants to keep. The debriefing sheet provided them with an in-depth explanation of the study, an email address for any further questions, as well as a phone number to the Counseling Services Department on campus should they feel distressed in any way about the inventories they had just completed. The researcher thanked everyone for their participation and the participants were free to leave.

RESULTS
After data collection, necessary scoring and variable recodes, the inventories were analyzed via the Statistical Package for the Social Sciences (SPSS). All tests were analyzed at an alpha level set at $p < .05$.

Locus of Control
The mean score for locus of control for seven-plus participants ($M = 9.830, SD = 3.382$) and less-than-seven participants ($M = 13.310, SD = 4.503$) was examined using an independent samples t-test. A Levene’s test for Equality of Variances revealed no threat to the assumption of homogeneity ($F(1,103) = 1.84, p = .179$). Although both groups scored in the internal locus of control range, there was a significant difference in scores between the seven-plus and the less-than-seven groups ($t(103) = -4.453, p = .000$, two-tailed). There was a large effect size ($d = .61$). A 95% confidence interval of the differences revealed that the mean difference lay between the lower interval of $-5.029$ and the upper interval of $-1.930$. 
Assertiveness
The mean score for assertiveness for *seven-plus* participants (*M* = 121.230, *SD* = 20.886) and *less-than-seven* participants (*M* = 111.860, *SD* = 24.472) was examined using an independent samples *t*-test. A Levene’s test for Equality of Variances revealed no threat to the assumption of homogeneity (*F* (1,103) = .897, *p* = .346). Although both groups scored in the intermediate range of assertiveness, there were significant differences revealed between the *seven-plus* and the *less-than-seven* group (*t* (103) = - 2.056, *p* = .042, two-tailed). There was a small effect size (*d* = .28). A 95% confidence interval of the differences revealed that the mean difference lay between the lower interval of .331 and the upper interval of 18.411.

In order to determine if LOC was related to assertiveness, a Pearson’s correlation was performed. The analysis included all of the study’s subjects and revealed a significant, moderate, negative correlation (*r* = -.35, *p* = .001) that had a weak effect (*r*² = .12).

**Discussion**
Individuals in the *seven-plus* group had lower locus of control and higher assertiveness scores than those individuals from the *less-than-seven* group.
Overall, it can be concluded that individuals that were at least seven years past the divorce had a more internal locus of control and were more assertive than individuals who were less than seven years past divorce. These results are congruent with the first hypothesis that there would be significant differences in locus of control scores between these two groups, as well as the second hypothesis that there would also be a difference in assertiveness scores. These results support the positive recovery side of the debate between researchers, who argue that the most detrimental impact of divorce is within the first four-to-seven years after the divorce (Hetherington 1999, 93; Amato, Loomis and Booth 1995, 895).

Although the *seven-plus* group had a significantly higher internal LOC, neither of the two groups’ LOC mean score could be considered highly internal in view of Rotter’s scaling (Rotter 1966, 1). The mean scores for both groups fell within the internal range but both groups fell close to the midrange point; however, the *seven-plus* group was the furthest away from that overall midrange point. It is worth mentioning that, 36.1% of the *less-than-seven* group was in the external range. When considering the mean and standard deviation scores, one standard deviation point would bring the overall mean score for this group fully to the external LOC range.

The results for assertiveness scores had the same trend. Although the *seven-plus* group had significantly higher assertiveness scores, the mean scores for
both groups were in the intermediate range. The differences in LOC and assertiveness indicate a positive recovery in individuals after the first seven years of the actual divorce. This may indicate that individuals do learn better coping skills as time passes after the actual divorce.

A possible relationship between the development of an internal LOC and assertiveness is seen in the significant negative relationship between the two coping mechanisms. Individuals who have a more internal locus of control tend to be more assertive. Further studies that address the exact number of years post-divorce, LOC, assertiveness, and other variables involved in the recovery process could produce a regression analysis that determines which factors are most beneficial to the development of good coping mechanisms and progress towards more “normal” social and relationship skills.

Even within the positive recovery conclusion for this sample, the researcher would note that the LOC and assertiveness scores for the seven-plus group do not indicate a high internal LOC or high use of assertiveness. Therefore, the researcher concludes that, although there is positive recovery, overall, individuals may still fall short of having what researchers consider completely healthy coping styles. It is also worth noting that, although the present study’s findings show evidence that divorce may only delay the development of positive coping skills during a positive recovery process, some of these results may be at least partially due to some of the limitations of this study.

LIMITATIONS

One of the limitations of this study may be the population from which the sample was drawn. The participants were undergraduate students from a state university. The fact that they are attending a four-year university could indicate that they have already developed healthy coping strategies. The lines of reasoning being that these individuals have already experienced enough positive recovery to get them to a university-level education. Therefore, this sample may already be at the higher end of the distribution for positive recovery, making these results very hard to generalize to the overall population.

Another limitation encountered was assigning participants to the seven-plus group if they had lived with a single parent for 7-16 plus years or to the less-than-seven group if they had lived with a single parent for 1-6 years. There was a difference between the two groups, indicating differences somewhere in the first seven years, but the researcher could not determine when these differences occurred within the first seven years. The age range of these groups also presented a limitation when analyzing the data, and again when interpreting the results.
Finally, another reason the data from this study may not agree with past studies is the study design. Most of the studies reported in the Literature Review resulted from case studies and clinical evaluations. This study used an empirical approach. The differences in these two types of approach makes it hard to compare the conclusions between this and other empirical studies, and again brings limitations to generalizing the results to the overall population. Although case studies allow a researcher the ability to measure a change in an individual’s coping skills, the cross-sectional type of design used in this study measures an individual’s particular moment in time. These individuals may or may not have received counseling or training in healthier coping skills. The majority of the case studies done in the past were also conducted in combination with clinical evaluations, using a longitudinal design measuring changes in individuals who are already in treatment at a clinical level and who already may have been taught healthier ways of coping. In such a combined study, researchers are measuring an individual’s progress towards healthier coping skills while they are being taught how to cope in a healthy way. The difference in these two types of studies makes it difficult to compare one to the other and presents difficulty in the ability to infer the results to the general population. The limitations found in this study provide multiple ideas and opportunities for future research.

**Future Research**

Future research studies could address the idea of longitudinal versus cross-sectional disparities, by using a cross-sectional approach that includes both participants who have received counseling or clinical intervention in some way and those who have not, and controlling for both groups having the same number of years post-divorce. The differences in the two groups could provide very useful information for clinicians on the effectiveness of clinical interventions and the development of healthy coping skills. Because this researcher concluded that the positive development of healthy coping skills was taking place within the first seven years post-divorce, including a methodology that could isolate the year(s) that are the most critical in that development could also be beneficial in determining the best time for clinical intervention.

Finally, the researcher proposed that LOC is the coping mechanism that influences an individual’s use of other coping strategies (such as assertiveness) and the results of the present study did reveal that those individuals with a more internal LOC did have higher assertiveness scores. Future research could include measurement of whether or not spiritual wellness or birth order also influences an individual’s development of LOC. Because LOC is a
coping mechanism that continues to develop throughout life, knowing what effects LOC could be very useful to the field of child and adult development as well as educators and parents alike.

CONCLUSION

More than 30 years have passed since the change in America’s divorce laws brought about change in family structure and dynamics. The study of the single parent family is now in its third generation. There are individuals from a generation whose grandparents were divorced, single parents and even some whose great-grandparents experienced divorce. With multiple generations having experienced the same event, and multiple generations now living in or having been raised in a single parent home, it may be that the single parent family structure is here to stay. With all of the complexities, challenges, and ultimately elevated stress levels that this type of family structure faces, it is beneficial to examine the coping skills and other dynamics of this family type. Continuing research in this area may provide ways for clinicians to offer effective counseling to help the children of single parent families develop viable coping skills to deal more effectively with the stressors in their lives.
REFERENCES


ABSTRACT

Mexican history teaches us that there are certain characteristics that initiate uprisings. One of those characteristics is the oppression of peasants, which eventually produced the 1910 Mexican Revolution. Since then, the Mexican government has attempted to avoid such uprisings by responding or appearing to respond to the needs of the rural working people. During the Great Depression and reverse migration to Mexico, President Lázaro Cárdenas intensified agrarian reform to prevent another revolution as the escape valve to the United States closed and poverty rose in Mexico.

More recently, the North American Free Trade Agreement displaced the small-scale farmers; to compensate them for their loss under NAFTA the Mexican government established PROCAMPO. This study, through an unobtrusive (nonreactive) method, analyzes existing statistics/documents and secondary data to evaluate if PROCAMPO significantly helps small-scale farmers or if it was used by the Mexican state to buffer discontent among farmers. The evaluation of PROCAMPO will determine if small-scale farmers need additional assistance in order to survive in a neo-liberal context.

This study attempts to discover if PROCAMPO, or Programa de Apoyos Directos Para el Campo [Program of Direct Support for the Countryside], a program that provides direct income transfers to Mexican farmers producing basic crops, was used to protect and compensate small-scale Mexican farmers for their loss under NAFTA, or if it was used as a symbolic program to diminish resistance against NAFTA and therefore avoid popular uprisings such as the one expressed by the Zapatista Movement on January 1, 1994. If such is the case, future economic development and negotiations can be made more effective and democratic by actively including the feedback and interests of those most needing assistance, such as small-scale farmers.

“Almost one in every two Mexicans lives in households at or below the poverty line (less than a minimum wage of some four dollars a day; [Mexico Country Brief, World Bank, 2007]. Indeed, 60% of all those who live in extreme poverty are in rural areas [CONAPO, cited in OECD, op. Cit.]” (Burstein 2007). A predominately indigenous peasant country fought against similar socio-economic conditions—disproportionate distribution of wealth, unprecedented levels of poverty and high levels of Mexican migration—
during the Regime of Porfirio Diaz, also known as “The Porfiriat” (1876-1910). Emiliano Zapata and Francisco Villa led the peasant revolution, and demanded Tierra y Libertad [land and liberty].

The agrarian land reform was partially achieved through the inclusion of Article 27 in the Mexican constitution. The article returned the original ownership of land and water to Mexican citizens and ended landed estates (latifundios) and haciendas (Krauze 1993, 359). Article 27 prohibited collective land or ejido land from being sold or rented without a collective agreement from its members. In the 1980s, President Salinas’ laissez faire political-economic policies dismantled Article 27, eliminating protections of communal land and thus Mexican farmers. President Salinas was preparing Mexico for liberalization, which was implemented as the North America Free Trade Agreement (NAFTA) in 1994.

Under the neo-liberal policies of Salinas, the Mexican farmers became the ultimate losers of trade liberalization. More significantly, the Mexican government policies of liberalization replicated Porfiriat’s socio-economic conditions and instigated a revolutionary sentiment among the Mexican rural class—most clearly expressed by the Zapatistas’ Rebellion in January 1994. Such internal political conflicts affect foreign investment in the country, in the past the Mexican government has taken to repression of its citizens in order to silence them (e.g., the 1968 Student Massacre) and to ensure Mexico is viewed as a stable country that is open for foreign investment. However, those forms of oppression are negatively viewed by the world and so the Mexican government has produced creative ways of pursuing “social order.”

**LITERATURE REVIEW**

This study reviews the significance of the Mexican Revolution in land reform, and highlights the socio-economic conditions that caused it. Drawing parallels to contemporary time, the study will examine the Mexican government’s policies of liberalization such as NAFTA and its effects on the agricultural sector, particularly those most affected by free trade. In addition, this study reviews existing literature on the effects of PROCAMPO to evaluate its success as measured by its effectiveness in helping small-scale farmers.

**Mexican Revolution**

The 1910 Mexican Revolution initiated the beginning of a democratic era for the Mexican peasantry. The Campesino Revolution was directed against discrimination and repression the people faced from the dictatorship of Porfirio Diaz who represented aristocratic hacienda interests and foreign
capitalism. The revolution resulted from the accumulation of injustices towards the peasants. One hundred years before the revolution, during Mexico’s Independence in 1810, the peasants were increasingly exploited by the Spanish Crown and criollo administrators. The participation of Padre Miguel Hidalgo in the movement for independence represented a coalition of unlikely groups—the criollos, mestizas/os and indigenous people. With Mexican Independence finally achieved in 1821, some peasants and workers acquired better working and living conditions (Guedea Virginia 2000, 288). The Mexican Independence Movement attempted to end slavery for the peasants. However, the dictatorship of Porfirio Diaz undermined the ideals of the Mexican Independence of 1810. For the elite, hacendados, and government officials, campesinos were always viewed as a commodity.

John Mason Hart, a renowned scholar on Mexican history states that “commercially oriented elite desired to gain access to workers and land for commercial productivity” (Hart 1997, 158). Diaz began to construct Mexico along these elitist and racist interests that further dislocated indigenous people from their land and converted them to devalued labor migrants to ever-expanding haciendas/plantations. Not surprisingly, the peasantry sought to end their enslavement and reclaim their indigenous land from the descendents of foreign colonizers.

During the regime of Diaz, all social classes in Mexico were affected by foreign monopolies controlling their national resources. The Mexican elite found themselves excluded from an archaic government structure, in which they were losing political power against a strong and powerful foreign force (Hart 1997, 101). For the industrial and urban workers, the Diaz regime diminished and almost made obsolete their collective bargaining power to attract foreign investment (Hart 1997, 59). The rural sector was the most affected by the Porfiriato; “about 130 million acres came into the possession of American owners” (Hart 1997, 158). The consolidation of the three social classes—peasantry, urban workers, and domestic business—gave birth to the Mexican Revolution (Hart 1997, 348). Francisco I. Madero was a member of the Mexican elite, a landowner, and “the wealthy heir of one of the five riches families in Mexico” (Krauze 1997, 245). He offered incentives to both the industrial workers and the peasants to join the insurgency cause. Emiliano Zapata, who most clearly represented the peasant revolution, joined Madero, as did Pascual Orozco and Francisco Villa. The consummation of the revolution required a new government, and Madero became the new Mexican president.
The Plan De Ayala
Zapata recognized that Madero was not going to keep the promise of land reform made to the campesinos. The policies of Madero reflected those of the elites, unwilling to change the political-economic structures that subjugated the peasantry who were a great majority of the Mexican population. Zapata and his officers, feeling betrayed by Madero, signed the revolutionary Plan of Ayala, in which they “declared revolution against Madero for ineptitude and blood treason” (Hart 1997, 253). In addition they demanded the redistribution of the land properties that rightfully belonged to the indigenous rural communities. It was not until the Mexican presidency of Lazaro Cardenas (1934–1940) that the campesinos had some of their land demands addressed. The agrarian reform implemented by Cardenas had similar effects as the United States’ New Deal during the Great Depression; it calmed class conflict. Cardenas’s distribution of land possibly prevented another revolution (Barajas 2009, 246).

The revolutionary land reform came to an end when Carlos Salinas became the Mexican President in 1988. By 1992 President Salinas dismantled the agrarian reform. Through the modified amendment of Article 27, ejido land could now be sold, rented, or mortgaged. In addition, the ejido sector was open to foreign privatization in the form of joint ventures (Lewis 2002, 406). For the rural working people of Mexico, the Salinas amendment undermined the revolution and its victories. In the subsequent years, laissez faire capitalism gained ground, and its impacts were evident in the poverty, unemployment, and migration levels of the Mexican people.

NAFTA and the Mexican Agricultural Sector
The North American Free Trading Agreement was signed by the United States, Mexico, and Canada in 1994. The agreements sought to diminish and eliminate tariff and trading barriers between the three countries. Mexico’s motivations to enter the agreement were to stabilize the Mexican economy by attracting foreign direct investment. It was believed that through this investment Mexico would increase wage levels, create jobs, and reduce poverty (Villarreal 2008). Scholars who studied NAFTA differ on the impacts the agreement had on the agricultural sector. Daniel Lederman, William F. Maloney, and Luis Servén, economists of the World Bank’s Latin America and the Carribean Region, argue that NAFTA did not have the predicted devastating effects on Mexico’s agriculture and that domestic production increased during NAFTA (Lederman, Maloney, and Servén 2005, 13). However, these World Bank economists did state that non-irrigated productivity stagnated, while irrigated land had an increase in productivity (Lederman, Maloney, and Servén 2005, 144). A common characteristic of
ejido land is that it is rain-fed (e.g., watering depends on rain). Large-scale farms tend to have irrigated land (i.e., these have access to water sources and irrigation systems) and can harvest more crops than rain-fed land. Therefore, the increase in productivity for irrigated land is of little consequence to the small-scale farmers, whose land depends on rain for irrigation. The small-scale ejidatarios’ lack of access to irrigated land and to the credit they need to purchase irrigation systems puts them at a disadvantage.

More uniformly, studies by groups such as Oxfam, a non-governmental confederation of 13 organizations from three continents that are working together to fight poverty and injustice, report that small-scale farmers are suffering drastic deterioration in living conditions because their productivity decreased; “the main crop price, corn, has fallen more than 70 percent from 732 pesos in 1994 to 204 in 2001” (Oxfam 2003, 13). The Global Trade Watch, an organization that promotes government and corporate accountability in the globalization and trade arena, reports that after NAFTA, rural population growth decreased to 6 percent, whereas urban population growth increased to 44 percent showing a trend of displaced farmers migrating to Mexico’s cities where unemployment rates are high, or to the north (Woodall et al. 2001). In a Congressional Research Report to Congress (2008), Villareal and Cid documented that NAFTA more severely hurt small-scale farmers for whom prices of basic crops like maize dropped and the imports of such basic crops increased. In addition, Mexico’s agricultural production has increasingly centered on large-scale farms, factory-type livestock lots, and capital-intensive food processing, putting pressure on the small-scale ejidos (Villareal and Cid 2008, 10, 16, 17). In regards to employment, NAFTA has also had negative impacts on the agricultural sector. According to Audley et al., in a Carnegie Endowment for International Peace report, the agricultural sector has lost 1.3 million jobs since 1994. For the small-scale farmer who does not have the aid of unemployment insurance, this means finding other alternatives for survival (Audley et al. 2004, 3). The effects of NAFTA continue to be disputed between scholars, but most scholars concur that small ejidos were the most affected under free trade, making it very difficult for them to survive.

PROCAMPO

PROCAMPO was initiated a few months before the implementation of NAFTA in 1994. PROCAMPO’s purpose is to compensate Mexico’s domestic producers of basic staples that compete with U.S. and Canadian farmers. It was also intended to assist domestic producers in switching to crops that are more competitive, and was established to provide income support to farmers over a 15-year transitional period through yearly, hectare-
based direct payments to producers. The program was to end in 2008 once complete liberalization was reached. However, president Zedillo (1994-2000) decided to extend PROCAMPO for an additional 15-year period and its operation was transferred to the Alianza para el Campo [Alliance for the Countryside] (Library of Congress, Mexico Rural Society 1996). For spring-summer 2005 and fall-winter 2005-06, PROCAMPO payment rates were 1,160 pesos per hectare for producers with less than five hectares and 963 pesos per hectare for all others (Secretaria de Agricultura [Department of Agriculture] 2009). These amounts correspond to about $82 and $68 in U.S. dollars, using an exchange rate of $14.11 pesos per dollar as of March 18, 2009.

Little research has been done on PROCAMPO. Elisabeth Sadoulet, and Alain de Janvry, professors of agricultural and resource economics at University of California Berkeley and Benjamin Davis, an economist with the Agricultural Development Economics Division of the Food and Agricultural Organization, found that “PROCAMPO had a multiplier effect on income and the multiplier for all households is in the range of 1.5 to 2.6” (2001, 25). A multiplier increases income by a certain percentage, therefore, the bigger the multiplier the greater the percentage increase in income. These researchers also found that small-scale farmers do not benefit from the multiplier (Sadoulet, de Janvry, and Davis 2001, 25).

Arturo García Santillán in his 2004 dissertation found that small-scale farmers are agricultural farmers only while medium-scale and large-scale farmers are also involved in animal raising. In addition, the researcher found that small- and medium-scale farmers own rain-fed land while large-scale farmers own irrigated land with high probabilities of accessing technology. García Santillán (2004) also found that the income supports of small-scale farmers are divided between agriculture productivity and medical costs. For small-scale farmers their land is their only source of survival as many of them do not have animals to raise. The fact that they use PROCAMPO money to pay for medical costs indicates that their income alone cannot provide them access to medical care and allow them to invest in their crops as the money was intended to help them do. However, the studies discussed here indicated that PROCAMPO does have a positive impact on farmers but they fail to address whether the impacts of PROCAMPO are sufficient to allow small-scale farmers to survive in a liberalized context. If such is the case, then researchers must ask: Did PROCAMPO’s implementation have the implicit purpose of buffering criticism against NAFTA and avoiding an uprising in Mexico?
PROBLEM

This study examines PROCAMPO in the post-NAFTA period, particularly analyzing the existing assessments of the program, the actual success of the program, and possible political motivations of the program. The central question of investigation is whether PROCAMPO was used to protect the impacted small-scale Mexican farmers or if it was used as a symbolic program to buffer critical resistance to a top-down NAFTA that privileges big businesses.

In short, PROCAMPO was established to compensate farmers in general for any loss under NAFTA. Considering that small-scale farmers were most affected, PROCAMPO’s mission would suggest proportional attention to these ejidos, compensating and ensuring their survival under free trade.

DESIGN

In the analysis of PROCAMPO’s effects on small-scale farms, this study focuses on two Mexican states, Jalisco and Michoacán. The two states were chosen because of the researcher’s interest in conducting research about sustainable development in these two states, which have historically contributed to a great majority of the migration to United States for over a hundred years. This study begins by reviewing government and research reports on the success of PROCAMPO. Then the researcher seeks to determine the actual success of the program by exploring several objective measures. The first measure looks at the number of small-scale farms before and after NAFTA to determine if PROCAMPO supported small-scale farmers. If the number of ejidos remained constant or increased, PROCAMPO will be assessed to have been successful in this aspect. Thus, comparing the number of small-scale farms pre- and post-NAFTA should offer a measurement of success of PROCAMPO.

A second measurement of PROCAMPO’s success will be determined by the median income levels of the small-scale farmers before and after NAFTA. Improvement or deterioration of the median income should indicate the effectiveness of PROCAMPO. A third measure of success is through the observation of migration levels of both Michoacán and Jalisco residents in the PROCAMPO years. Both states’ level of PROCAMPO funding will be compared to their migration levels. If one state received more assistance and had less migration, this trend will suggest PROCAMPO’s success. On the contrary, if one state received more assistance and there was more migration, this trend will indicate failure. To further understand the success of PROCAMPO in helping small-scale farms, this study will examine whether the direct PROCAMPO money transfers went into the hands of small-scale
farmers or into the hands of renters who are producing for export. This analysis is important as it attempts to discover if large U.S. and Mexican companies are benefiting from PROCAMPO, which would suggest a failure of the program’s mission: supporting ejidos.

In short, this study will analyze the success of PROCAMPO in aiding small-scale Mexican farms in Michoacán and Jalisco, employing five general measures of success: 1) changes in number of small-scale farms, 2) changes in median income of small-scale farms, 3) changes in migration levels and their correlation to PROCAMPO funding, 4) changes in funding, and 5) changes in unemployment rates.

DATA

The data will be derived from primary and secondary sources, including various government reports and statistics from the Mexican Department of Agriculture (Secretaria de Agricultura), Population Census, and Department of Rural Development. The researcher will also analyze interviews with small-scale ejido farmers, documentaries, books and newspapers to assess PROCAMPO’s success. Direct interviews with small-scale farmers are not possible because of time and funding constraints, but they would be an interesting and critical element in a future research project. The present study attempts to objectively assess the success of PROCAMPO and whether the dominant discourse of its intent and success is consistent with the empirical trends. This analysis should solve the researcher hypothesis, which holds that PROCAMPO was designed to appease dislocated small-scale farmers as their land and livelihoods became appropriated by global capitalist elites.

FINDINGS

In Jalisco, 27 percent of farmers indicated that one of the main reasons why they did not produce in the spring-summer cycle was because they lacked money or assistance (INEGI, Censo Agropecuario 2007) making this a bigger reason for not producing than bad weather (5 percent) or letting the land rest (16 percent) combined. For Michoacán, 37 percent of farmers reported that a lack of money and assistance was also bigger than letting the land rest (26 percent) and bad weather (6 percent) (INEGI, Censo Agropecuario 2007). PROCAMPO’s aide to farmers is important and necessary for small-scale farmers. Their land use is for subsistence (survival). In the analysis of changes in farms, land size was classified in the following categories: a small farm = <3 ha, a medium farm = 3-7 ha, and a large farm = >7 ha (Sadoulet, de Janvry and Davis, 2001). Comparing periods in 1995 and 2007 in both Jalisco and Michoacán, the number of small-scale farmers
decreased in both states. The 1995 period reflects the first response farmers had to PROCAMPO and who benefited mostly. The 2007 period is the last year for which full information was collected. Therefore, the present study compares the 1995 and 2007 periods in an effort to understand who first benefited and who currently benefits from PROCAMPO. Figure 1 shows the researcher’s calculation that the number of small-scale farmers from both states who continue to benefit from PROCAMPO has decreased since 1995. The reduction implies that as a compensation program PROCAMPO is not sufficient to support small-scale farmers as producers. Medium-scale farmers in both states also suffered a reduction. In effect, in both states, the total number of farmers who participated in PROCAMPO decreased. The researcher calculated the data in Figure 1 using information from the PROCAMPO program website at www.aserca.org.mx.

**Figure 1.** Michoacán and Jalisco PROCAMPO farmers in 1995 compared to 2007
Income Of Small-Scale Farms
Sadoulet, de Janvry, and Davis (2001) found that “PROCAMPO direct transfer represents an increase of 8.7 percent over 1994 income. With a multiplier of 2.06, the indirect effect is a contribution to income of 9.3 percent over 1994 income” (Sadoulet, de Janvry, and Davis 2001, 15). Hence, the “total PROCAMPO contribution increased income by 18 percent” (Sadoulet, de Janvry, and Davis 2001, 24). Without PROCAMPO average household income would have declined by 3.9 percent but not for small-scale farmers. (Sadoulet, de Janvry, and Davis 2001, 25). They also found five instances where transfers were not used to generate more income: small holders, household with a large number of adults, indigenous households, and households in the North and North-Pacific were found to have income multipliers of less than one. However, all households were made better off by the cash transfers as it is better to have received some transfers than none at all (Sadoulet, de Janvry, and Davis 2001, 25). PROCAMPO was found to increase the income levels of most participants through its direct and indirect effects. However, this increase in income was not significant for small-scale farmers. The fact that the multiplier is low for small-scale farmers means that PROCAMPO is not meant to serve small-scale farms or indigenous communities. It is these groups who are the most hurt by liberalization, and this discrepancy in income changes confirms that PROCAMPO, as an assistance program, is not enough.

Changes in Migration Levels & Their Association with PROCAMPO Funding
In 2005, PROCAMPO funding for Jalisco was $ 1,361,893,462 and for Michoacán, it was $ 881,261,361 (Subsidios al Campo 2009). In Mexico, migration from 2001-2004 was primarily from rural areas with 51 percent, and for urban areas 49 percent. For Jalisco migration from 2001-2004 was 58 percent urban and 42 percent rural (COEPO, Jalisco 2009, under Migrantes que se dirigen a E.U. [Migrants heading to the U.S.]). About 70 percent of Jalisco’s migrants indicated that jobs are the number one reason for migrating to the U.S. (COEPO, Jalisco 2009). The trends resemble those of the Porfiriato period when land became concentrated in fewer and fewer hands, which corresponded significantly with outmigration of dislocated small-scale farmers. These trends might explain why Jalisco has the highest levels of migration to the United States, and why Michoacán follows it (see Table 1). For both Michoacán and Jalisco residents, migration to the U.S. is an escape valve from the low standard of living the people have.
Table 1. Migration from Jalisco and Michoacán in 2000 and 2005.
Note: In this table, "migration" is defined as the number of people who lived in the state as of January 1995 and who no longer reside there.

<table>
<thead>
<tr>
<th>State</th>
<th>Year</th>
<th>Migration</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jalisco</td>
<td>2000</td>
<td>142,660</td>
<td>$821,165,628</td>
</tr>
<tr>
<td>Michoacán</td>
<td>2000</td>
<td>107,161</td>
<td>$575,781,722</td>
</tr>
<tr>
<td>Jalisco</td>
<td>2005</td>
<td>106,517</td>
<td>$1,361,893,462</td>
</tr>
<tr>
<td>Michoacán</td>
<td>2005</td>
<td>69,139</td>
<td>$881,261,361</td>
</tr>
</tbody>
</table>

Changes in Funding
PROCAMPO provides funding based on hectares. Therefore, a comparison of the amount of hectares assisted by PROCAMPO will provide a better measurement of the beneficiaries. Table 2 shows the number of hectares assisted (HA) by PROCAMPO in 2005 and 2007. The researcher calculated the data in this table based on information from the PROCAMPO website (www.aserca.org.mx).

Table 2. Hectares assisted by PROCAMPO in 1995 and 2007.

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Jalisco</td>
<td>97,027.72</td>
<td>229,263.79</td>
<td>553,882.80</td>
<td>880,174.31</td>
<td></td>
</tr>
<tr>
<td>Michoacán</td>
<td>229,056.10</td>
<td>256,919.38</td>
<td>235,115.78</td>
<td>721,091.26</td>
<td></td>
</tr>
<tr>
<td>Jalisco</td>
<td>75,348.42</td>
<td>214,027.89</td>
<td>658,431.54</td>
<td>947,807.85</td>
<td></td>
</tr>
<tr>
<td>Michoacán</td>
<td>142,921.69</td>
<td>250,910.11</td>
<td>321,572.57</td>
<td>715,404.37</td>
<td></td>
</tr>
</tbody>
</table>

Small-scale farmers in the state of Jalisco in 1995 accounted for 11 percent of total hectares supported, medium-scale farmers 26 percent, and large-scale farmers 63 percent (see Table 2). In 1995 Michoacán small-scale farmers accounted for 32 percent, medium-scale farmers 36 percent, and large-scale 32 percent. By 2007 Jalisco’s small-scale farmers only accounted for 8 percent of total supported hectares, medium-scale farmers 23 percent, and large-scale farmers 69 percent. In 2007 in Michoacán about 20 percent of hectares supported were small-scale farmers, 35 percent were medium-scale farmers, and 45 percent were large-scale farmers. The percentages indicate that small-scale farmers in these two states are the double losers. They are double losers because they were negatively affected by NAFTA, and under PROCAMPO, they are receiving very little monetary assistance. Furthermore, the Mexican
government’s supposed assistance programs for ejidatarios, the majority of whom are small-scale farmers, mostly benefits large-scale farms and not those who most need it: small-scale farmers. The disparity among PROCAMPO beneficiaries is evident.

Further analysis on who the top PROCAMPO beneficiaries are for both states showed that the number one beneficiary from PROCAMPO in the state of Michoacán from 1994-2008 was the mayor of La Huacana. The ex-mayor was also president of La Huacana from 1999-2001 (Riviera 2008). It is estimated that the payments made under PROCAMPO were approximately $2,525,626 (ordinary pesos) [Subsidios al campo Mexico, from 6/9/08-6/14/08].

For the state of Jalisco, the number one beneficiary was the Comunidad Indigena San Sebastian Teponahuaxtlán, which received $17,532,193 ordinary pesos. However, this is an indigenous community composed of a number of indigenous members. The fact that this is a collective beneficiary does not allow for a fair comparison with the amount received by individual member.

Unemployment
The unemployment rate is a fair indicator of the stability of a state, an unemployment rate of 4 percent is considered very low and 9 percent is considered extremely high (Dornbusch, Fischer, and Startz 2008, 42). High unemployment rates reflect a poor economy unable to employ its workforce. The unemployment rates shown in Table 3 give the idea that Mexico’s unemployment is under control. However, those who have experience with Mexico know that the numbers are far from reality.

<table>
<thead>
<tr>
<th>State</th>
<th>Year</th>
<th>PROCAMPO Funding</th>
<th>Unemployment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jalisco</td>
<td>2006</td>
<td>$1,003,522,510</td>
<td>3.91</td>
</tr>
<tr>
<td>Michoacán</td>
<td>2006</td>
<td>$761,964,735</td>
<td>2.95</td>
</tr>
<tr>
<td>Jalisco</td>
<td>2007</td>
<td>$986,154,216</td>
<td>3.49</td>
</tr>
<tr>
<td>Michoacán</td>
<td>2007</td>
<td>$742,434,268</td>
<td>2.83</td>
</tr>
</tbody>
</table>

Table 3. PROCAMPO funding and unemployment rates.

The current rate does not take into consideration that there is no unemployment insurance in Mexico, consequently people engaged in marginal activities (street vending, repair jobs) for survival. These people are not counted as unemployed and become part of the informal sector for which data is not recorded. Mexico also suffers from high underemployment (workers who would work more hours or move to a better paying job, if jobs were available), which combined with the unemployment rates provides a
better understanding of the availability of jobs in Mexico. Further examining PROCAMPO funding per state along with unemployment rates, the researcher finds that Jalisco in 2006 and 2007 had much more funding than Michoacán, but it also had a greater unemployment rate than Michoacán. However, both states had a decrease in their unemployment rate in 2007.

LIMITATIONS

The number of ejidos before and after NAFTA was not evaluated as the information provided in the 2007 Censo Agropecuario (Farm Census) was not broken down by the size of the plots; therefore, the researcher was not able to obtain an accurate representation of small-scale ejidos. The 1991 Censo Agropecuario (Farm Census) presented more detailed data than the 2007 census. In addition, the researcher was constrained by time, distance, and funding, and was therefore unable to conduct surveys or interviews of small-scale ejidatarios. Finally, the present study is based on two states therefore is not completely representative of the country of Mexico. However, the comparison of these two states showed very strong similarities, which indicate that PROCAMPO benefits are going to a few of the large-scale farms.

FUTURE RESEARCH

A more thorough study about PROCAMPO should include interviews or surveys with the small-scale ejidatarios in Mexico as a way to reflect the voices of the most exploited members of the Mexican society. In future research, the researcher hopes to include interviews as a way to expand on the current research. Furthermore, the researcher envisions the ability to analyze other programs implemented by the Mexican government in an attempt to create sustainable economic development in Mexico.

CONCLUSION

The tri-national agreement, NAFTA, has affected the local agriculture of Mexico. This study showed that the effects of NAFTA were damaging to the small-scale farmers in the states of Jalisco and Michoacán. The effects created or accentuated by NAFTA on the agricultural sector (i.e., decrease in corn prices, displacement of small-sale farmers, unemployment, and migration) are indicators that the global market is controlled by an elite force. As the Mexican state recognized that the agreement could create unrest among campesinos, it established PROCAMPO. However, PROCAMPO has been proven to mostly benefit large-scale farms. The money transferred to small-scale farmers by PROCAMPO is not enough to allow them to enter
and subsist in a global economy. The Cuban revolutionary, Che Guevara, identified this sort of market distortion as a factor for the Cuban Revolution, saying “...a single market that imposes and fixes conditions—that is the great formula for imperialist economic domination” (Lavan George 1980, 31). He further testifies that this situation creates a state of “underdevelopment which results in low wages, underemployment, unemployment: the people’s hunger” (Lavan George 1980, 32). This hunger also exists in Mexico, but the Mexican government provides breads crumbs (PROCAMPO) to control it.

PROCAMPO has a positive effect on the income of some farmers, specifically those who have medium-scale and large-scale farms. This positive effect reduces the farmers’ dissatisfaction with NAFTA. According to James C. Davies, it is the dissatisfied state of mind that produces the revolution (Davies 1962, 6). Moreover, the Mexican state weakened the organizational strength of ejidos through the amendments of Article 27 of the constitution, which protected communal land. The amendments have allowed private owners to become ejidatarios and as a result interfere in the decisions of the ejido community. Before this constitutional change, ejidos had reflected a communal indigenous culture in which the well being of all the community was always a factor in decision-making, but this is now undermined by the inclusion of private farms into ejido governing structure. Consequentially, if peasants do not have a strong, organized community, then their intensity of their revolt is not going to be strong. This is another factor of a revolution indicated by Goldstone (1980, 441). As the researcher has shown, PROCAMPO seems to be much more effective as a pacifier for the agricultural population than as an assistance program. Because the internal policies established in Mexico, such as PROCAMPO, were not sufficient to stop the peoples’ hunger, migration served as an escape valve for the displaced small-scale farmers. However, under the current recession and unemployment in both countries, ex-ejidatarios may find themselves without jobs and land, and PROCAMPO’s pacification may only be temporary as folks seek tierra y libertad [land and liberty].
REFERENCES


THE CALIFORNIA LATINO POPULATION AND THE NEED FOR BILINGUAL EDUCATION

Angelica Tellechea
Faculty Mentor: Dr. Wilfrido Corral

ABSTRACT

The Latino population is one of the fastest-growing ethnic groups nationwide (U.S. Census Bureau 2000-2006). The state of California and the county of Los Angeles house the largest numbers of this population. Young people make up the majority of the Latino population, which means that they are still in the educational cycle (8th–12th grade). This young Latino population is currently challenged by English-only academic systems that threaten their acculturation and educational attainment processes. Using a meta-analysis of U.S. Census Bureau data and existing literature, the present research argues for the urgent need for the implementation of bilingual education programs in California. As the fastest-growing population, Latinos need academic success through educational attainment, health care and political access, and assistance in overcoming their fears of acculturation and assimilation so that in the future, when this population becomes the majority, they will be an educated and competent population as a whole.

In terms of legislation dealing with immigrants, language has always been at the root of the most pressing cultural and social topics. In the past, the United States tended to present its arguments in a manner that benefited the least diverse populations in an attempt to reach whatever desired outcome was at hand. There is a general perception among minorities that the United States is xenophobic regarding languages other than English. However, it would be fair to say that Americans have learned and grown from this perception. Focusing explicitly on the language needs in education for California’s Latino population while providing a historical overview, this study asks: Is bilingual education needed in California, and are there any benefits?

Language is now, in the 21st century, at the forefront of many cultural discussions as well as legislation process. More specifically, at the forefront of these discussions and legislative processes are both bilingual and general educational issues. These issues continue to be problematic for the nation at a time of continued growth in the immigrant population, a population that continues to grow even during the present economic crisis. Our multilingual language acquisition process as a nation has been somewhat slow. The presence of multiple layers of required legislation and the interference of special interest groups has made the process of incorporating more than one
language into the framework of the U.S. a very slow process. Most educators, researchers and immigrants themselves seem optimistic about the future of the nation's language evolution. Part of this optimism relies on the analysis of language development timeline, shown in Diagram 1 (Mora 2005) and the role that language has served over the centuries in U.S. society.

The most current evidence of the evolutionary process of language is found in the current president of the United States, Barack Hussein Obama. President Obama is an African American whose father was born in Africa. President Obama’s father had to learn English as a second language to thrive and ultimately master it to succeed in the U.S. colleges he attended. With a new African American president, most of America is coming together on an emotional, economic and spiritual level. However, that is not to say that the U.S. does not have quite a bit of ground to cover because there is a lot of work to do around issues that urgently need to be addressed, such as education, immigration, health care reform, and language. Language and education are at the forefront of all of these issues and are the focus of the present study.

In the past 12,000 years, there have been over 2,000 dialects spoken in the Americas, none of which were competing to be the “mother default” language because all people wanted to do was communicate (Krashen 1996, 52-59). However, the present is quite a different story. As shown in Diagram 1, from the 5th through 12th centuries in Europe, vernacular languages had their roots in the western Germanic languages and have since evolved into what is now known as English, enabling English to become the mother default language of many nations. According to history (Zentella 1988, 158-165), this shift happened during the 15th through 18th centuries when the British Empire conquered dynasties in other countries and regions with the goal of expanding its empire. As a result, the British Empire became a superpower. The second phase in the development of English as a hegemonic language took place in the 19th century when the United States established its independence from Britain. As an independent country, the United States emerged as the superpower of our times. These are the two main reasons why English is the dominant language in the United States. Because of this ascendancy, the United States created what some perceive as a linguistically xenophobic society.

As shown in Diagram 1, some of this linguistic imposition first became apparent when, in 1780, John Adams suggested that English be the official language of the United States. At the time, less than 3% of the population spoke English and the majority spoke either German or French.
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In the past 12,000 years, there have been over 2,000 dialects spoken in the Americas, none of which were competing to be the "mother default" language because all people wanted to do was communicate (Krashen 1996, 52-59). However, the present is quite a different story. As shown in Diagram 1, from the 5th through 12th centuries in Europe, vernacular languages had their roots in the western Germanic languages and have since evolved into what is now known as English, enabling English to become the mother default language of many nations. According to history (Zentella 1988, 158-165), this shift happened during the 15th through 18th centuries when the British Empire conquered dynasties in other countries and regions with the goal of expanding its empire. As a result, the British Empire became a superpower. The second phase in the development of English as a hegemonic language took place in the 19th century when the United States established its independence from Britain. As an independent country, the United States emerged as the superpower of our times. These are the two main reasons why English is the dominant language in the United States. Because of this ascendancy, the United States created what some perceive as a linguistically xenophobic society.

As shown in Diagram 1, some of this linguistic imposition first became apparent when, in 1780, John Adams suggested that English be the official language of the United States. At the time, less than 3% of the population spoke English and the majority spoke either German or French. The 1890 census indicated that only 3% of the population spoke English. Linguistically, American society was characterized by early and progressive discrimination practices against Northern Europeans (Scandinavians and some Germans) followed by Asians and, lastly, Spanish speakers. Northern Europeans weathered this storm for two generations and eventually
vindicated themselves by becoming the ruling class of America. Asians evolved into what some social scientists have called “model citizens,” (Rios 2007-2008) by assimilating and incorporating themselves into American business, becoming very successful as a group. This process also took Asians about two generations. Latinos (by which the author refers to Spanish speakers from at least 21 Spanish-speaking countries) on the other hand, are a group that has taken longer to assimilate, let alone acculturate. As a group, Latinos have not maximized their access to resources nor have they taken advantage of all resources available to them as a group. As such, Latinos are expected to take three to four generations to experience the assimilation benefits of their non-Latino counterparts (Baker 2006).

To experience these benefits, Latinos will need to overcome their fear of acculturating and embrace the nation in which they have chosen to live. Language is at the root of this process because without being able to communicate orally and in writing in their adopted country, change and progress cannot happen. Latinos know that they account for over 14.8% of the total population in the United States and also acknowledge that they are the fastest-growing minority group. According to the 2006 U.S. Census Bureau report, the general population in the United States is growing at a rate of 6.1%, whereas the Latino population is growing at a rate of 24.1%. The Latino community is immensely diverse within itself. Although Mexicans and Puerto Ricans (Zentella 1992) have been the hegemonic groups for decades, this too is changing.

The literature on bilingualism shows consensus that there needs to be a starting point and that without proper leadership the Latino population will not progress as rapidly as its growth demands. Without the proper leadership and guidance, the Latino population will continue to flounder. Surprisingly enough, our nation’s foremost leader, President Obama, has acknowledged the need for such cohesiveness among Latinos through the appointment of Latinos/Latinas into his cabinet. Both appointees, Hilda Solis and Sonia Sotomayor, provide leadership in areas where Latinos have urgent issues that need to be addressed (labor and legal). Current Latino leadership has started getting attention through legislative appointments such as Hilda Solis, the new Secretary of Labor, and the appointment of Sonia Sotomayor to the Supreme Court. These accomplishments are major and visible strides within a sub-population that is currently dominating many of the labor markets as well as leading the population growth of the world’s most powerful nation, the United States of America. Globalization has made it possible for Latinos to corner certain labor markets such as: food processing, canneries, agriculture, and construction, just to name a few (Krashen 1996, 33-35). But
along with those noted achievers and achievements, Latinos need to factor in other mentors or models in the fields of science and education, of which there are too few.

**Methods**

The methodology selected for this research question is a quantitative, qualitative narrative with a meta-analysis approach. Due to the nature of the query, this quantitative method was essential to show that the reported statistics support the need for greater bilingual education in a growing California Latino population (Krashen 1996, 95-100). The findings indicate the alarmingly low rate of growth, educational attainment and the income levels among Latinos. Using qualitative methodologies alone would have been futile for supporting this proposal in that it would not have been possible to ethically prove the need, and because the findings would have been subjective to whoever was polled. In addition, the ethnicity of who was polled would have swayed the findings. Upon researching what method to use, the researcher read many journals, articles, and books.

**Literature Review**

Given the current studies and reviews of our time, Jay P. Greene’s article, *A Meta-Analysis Review of Christine Rossell and Keith Baker’s Research Study on the Effectiveness of Bilingual Education* (1996), indicated that taking such a biased poll would have proven to be very imprecise and, possibly, unethical. In addition, the research and writings by Colin Baker, in *Foundations of Bilingual Education and Bilingualism*, further support Greene’s findings. Both Greene (17) and Baker’s (228-267) research concluded that bilingual education works. Because bilingual education is operative, it is therefore proposed by this author that it is imperative that a working model is made accessible to the large, young, and growing California Latino population to ensure that they get the best possible education.

Actual numbers, graphs, and statistics (2006 U.S. Census Bureau) validate the population growth rate and trends of California’s Latino population. In support of the stacked methodology, this researcher went a step further by incorporating the information provided by two credible and unbiased sources: the U.S. Census Bureau, and the Latino Health Alliance. The State of California contracts with the Latino Health Alliance and funds its research related to issues within the Latino population.

Greene’s purpose for conducting his meta-analysis study was to validate that Rossell and Baker’s research on 75 methodological studies would prove
to be acceptable (1996). For the purpose of this study, Greene opted for a process called meta-analysis. *Meta-analysis* is the process by which study or research findings are validated through an additional process of researching and dissecting the study so that its validity can be proven. Greene’s credibility is established by his serving as director of languages at the University of Arkansas, his research on bilingual education (focusing on bilingual education versus immersion programs), and the fact that the 75 studies were used in four major supreme court case rulings that ruled in favor of bilingual education (2002, 2005, 2008, and 2009). Meta-analysis is best described by Greene as “a statistical technique most commonly used with quantitative research” (1996). What this means in layman’s terms is that he looked at 75 pertinent studies and further validated them as acceptable or unacceptable research studies on bilingual education. Greene selected the following research questions: (1) Should diverse populations have bilingual education? and (2) Are there any benefits? These questions are crucial for this author’s present research because they establish the basis of the research question of this present study: Is bilingual education needed in California and are there any benefits? Similar to the methods used in the present research, Greene felt it was important to provide the historical facts related to his subject so that the effectiveness and relevance of such a study could be determined. Some examples of Greene’s presentation of such facts included his discussion of how Proposition 227 in California sought “to eliminate the use of native language in the instruction of children with limited English proficiency (LEP)” and that, ultimately, Proposition 227 passed. He further states that when Proposition 227 passed, the state government no longer provided the funding for this type of education. Interestingly enough, the federal government stepped in and said that, not only were these programs needed, but the removal of such programs would violate the Fourteenth Amendment rights of this diverse population. Rossell and Baker’s research (1996) refuted Proposition 227 and argued that children learn English best when they are taught in English. Greene is quick to refute this argument by presenting the research and analysis he conducted on the research by Kenji Hakuta for Greene (1998). Hakuta claimed “native language approaches are indeed beneficial for children learning English.” Greene makes a relevant observation about the benefits of Hakuta’s argument and how the media exemplified Hakuta’s view: If Hakuta was really conducting a meta-analysis, he should have also seen that the media was controlling the people’s vote (1998). We saw the same results with the passing of Proposition 227. The media helped pass this proposition and swayed the electorate vote (Mora and Krashen 1982; Zentella 1997). According to Greene, “The fact that research upon research indicated the opposite of Proposition 227 only
brought to light how the media and electorate in California, as a rule, do not pay any attention to research” (17). California spent millions of dollars on research yet the voting constituency failed to acknowledge the findings. Most importantly, the final outcome, according to Greene’s arguments, is what is most essential for examination. Though Greene concedes that “interpretations of research findings can be ambiguous or inconsistent” (15), such is not the case with Rossell and Baker’s research. What is relevant in this review is that Greene opted to conduct a meta-analysis of Rossell and Baker’s research (1996), because he states that a more accurate review is achieved through a “systematic and statistical aggregation of research findings and in the process it will support diametrically opposite conclusions” (3). The result is that upon conducting this review, Greene discovered that only 11 out of the 75 methodological studies researched by Rossell and Baker proved to be acceptable under the established criteria (1996). The reason for this finding is that Rossell failed to research the validity of all 75 studies used. Instead, the researcher counted updated versions of an included study as a separate study. Secondly, when Rossell and Baker were unable to locate studies relevant to their research, they arbitrarily replaced them with imprecise studies. Greene was astounded at such a violation of ethics in a research study of this category. To argue his conclusion and findings of this review further, Greene indicated that the 11 methodological studies found to be acceptable were actually in favor of bilingual education (1996, 17-18). The studies also showed that students scored higher with immersion programs. Nonetheless, bilingual education did contribute to the increase in their test scores versus those of students without a bilingual education. An immediate or important lesson one may learn from this finding is that research on bilingualism may be limited because the sub-population is as dynamic as the language they speak. Greene’s meta-analysis was essential for the research question presented in the present study because it validated the importance of how such research is conducted. In addition, through the literature review of Greene’s meta-analysis, the importance of Colin Baker’s research and writings were supported. Baker has written numerous books on language and bilingual education. His research and writings on these studies make him Greene’s counterpart of the 21st century. Both scholars are critical-minded, experienced and daring enough to even refute and investigate their own work. Baker is best known for his book, *Foundations of Bilingual Education and Bilingualism*, now in its fourth edition. This book covers all the latest research studies and arguments regarding bilingual education. Baker, like Greene, qualifies why quantitative methods are best served when proving the need and benefits of bilingual education. Having read all of Baker’s books and
perused his complete encyclopedia on bilingual education, this author can report that Baker's research is substantiated with detailed findings.

**FINDINGS**

The passage of Proposition 227, as discussed previously, was one example of how controversial and polemical the topic of bilingual education is in California. The Proposition 227 controversy has been documented in many studies conducted by the Latino Health Alliance (2005), U.S. Census Bureau (2000-2006) and the Hispanic Center for Change (2002, 2005). These organizations have specifically targeted this diverse and growing population of Latinos so that the populace can make effective decisions when voting on behalf of this same population.

The statistics shown in Diagram 2 make a statement about why bilingual education is fundamental for creating a better California. Secondly, these statistics provide the platform for further research and future legislative initiatives. According to the 2000 U.S. Census Bureau and the California Statistical Abstract from 1999, Latinos made up 19% of the population in 1980; whereas African Americans were at 8%, Asians at 5%, whites at 67% and Native Americans at 1%. Compare these numbers to those from the 2006 Census where the percentages clearly show the tremendous growth of Latinos in California: Latinos made up 32% of the population, whereas the African American population decreased to 7%, the Asian population increased to 13%, the white population decreased to 77%, and the Native Americans population remained at 1%.

![Diagram 2. Age Distribution by Sex and Hispanic Origin, 2002. Note: Each bar represents the percent of the Hispanic (non-Hispanic White) population who were within the specified age group and of the specified sex. Source: U.S. Census Bureau, Current Population Survey, March 2002, PGP-5.](image)

The U.S. Census Bureau has predicted that the 2010 census will further indicate that the growing Latino population will be above 40%. California
boasts the highest birth rate for Latinos, as compared to any other minority group. For every one child classified as “non-Hispanic white” there are thirteen Latino babies born. According to the 2000 and 2006 U.S. Census Bureau reports, the majority of these Latino babies were born in the United States, while their parents were foreign-born. The data also reveals a very important fact: There is a young Latino population. Specifically: 45% are 0-17 years of age, 51% are 18-64 years of age, and 4% are 65 and older.

As a diverse group this might seem encouraging, but not when one sees the numbers in terms of their educational backgrounds. Diagram 3 shows that over 50% of the Latino population does not have a high school education. Mexicans are at the top of this statistic with 70%. As a result, over half of the Mexican immigrants in the U.S. do not speak English; much less understand the language (Diagram 4).


Lindholm (1991) conducted research on theoretical assumptions and empirical evidence for academic achievement in two languages. The researcher proved that educational attainment is not only achieved, but exceeds academic scoring expectations when the mother language is spoken (Spanish) and taught together with the default language (English).

The difficulty of language barriers is that they create other forms of barriers between these cultures, which these sub-populations are sometimes unwilling to acknowledge. This issue becomes more apparent in the financial arena. Consider the following statistics. Comparing the earnings of Latinos and their white counterparts shows that Latinos earn .54 cents in comparison to $1 earned by their white counterparts. This disparity is primarily due to Latinos having not finished their high school education (whether in their native country or in the United States) and their inability to speak and understand English well. This problem is apparent when one considers that, due to the lack of educational attainment, many Latino families are experiencing financial difficulties (U.S. Census Bureau 2000, 2006 reports).

Krashen (1996) also argues that Latinos’ financial difficulties have followed them to the United States from their mother countries because this population came from a financially disadvantaged background (37). Furthermore, the 2006 U.S. Census Bureau report indicates that non-Hispanic immigrants come from more affluent households than their Latino counterparts (Diagram 5). According to the 2006 U.S. Census Bureau report and the 2005 Latino Health Alliance report: one of every five Latinos in California was poor and one of every three children of these immigrants lived in a poor household.


Greater percentages of Latinos are poorer than any other ethnic group in California, according to these reports. The financial crisis in the Latino population crosses over to health care as well. Latinos have limited access to health care due to financial difficulties. According to the 2005 Latino Health Alliance report:

- More than one in four Latinos ages 0-64 in California are uninsured (28% of Latinos compared to 9% of whites).
- The high uninsured rate is largely due to the very low rate of health insurance provided by their employers (43% for Latinos compared with 76% for whites).
- Almost two-thirds of uninsured Latino children (ages 0-17) are eligible for one of California’s two public health insurance programs: Medi-Cal or Healthy Families.
- Community and hospital clinics are the usual sources of health care for half of Latino children in households below the 100% family poverty level.
- Less than 4% of physicians in California are Latino and only 5% of the state’s medical residents were Latino in 2000.

While some might blame these financial and health care issues on the Latino population itself, one might instead ask: Is this population any different from the populations (from the same countries) that are being helped outside the United States? Does the California Latino population not contribute more than those other populations outside the United States? One might argue that due to the lack of education or the conscious choice to be here legally or illegally, educated or not, it is not anyone’s issue except the people who have made that choice.

The reality is that the Latino population has been contributing to the U.S. economy as a result of the socio-economic climates in the Latino countries. As a result, Latinos contribute more than $4 billion dollars to the economy of Mexico through the transfer and sending of monies to family members from the U.S. to Mexico, not to mention the additional $25 billion dollars to the other 20 Latino countries, according to a 2007 NAFTA report. Diagrams 6 and 7 show the occupations in which Latin men and women work in the United States. The question that stands out is: Why not help the fastest-growing population that is also contributing in the labor and world trade markets? (U.S. Dept. of Commerce 2008 report; U.S. Dept. of Labor 2009 report).

Future Research

Based on the existing research—such as Greene (1996), Baker (2006), the U.S. Census Bureau (2006), Zentella (2004), and others—the wider population needs to stop discriminating linguistically and, experts in bilingualism need to acknowledge the research available that shows the benefits of bilingual education. Additional research could reveal more benefits for offering bilingual education, including:

- Acknowledging the challenges that California’s Latinos face so that the genocide of a culture and language stops
- Promoting diversity by educating the minority populations
- Advancing cultural and educational competency
- Providing health care and political access

This society could benefit as a whole, not just as one population. These benefits should offset the challenges that Latinos face everyday. Latinos are critical, as a population, for the state of California as they affect all aspects of the state’s survival. These effects extend to labor, education, health as well as the government itself.

It is important for one to take into consideration four specific characteristics of this population, which are the driving force behind the need for bilingual education (U.S. Census Bureau 2000-2006):

1. Most Latino children are born in the U.S., but most Latino adults who live in the U.S. were born abroad.
2. Latinos are a young population.
3. Their educational attainment level is low.
4. Their English language proficiency is low.

Future research must also address important policy issues that will make this sector of the population more educated and better equipped in the labor market. Bilingual education is at the core of many important issues. It has been proven that healthy children are most likely to succeed in schools (Latino Health Alliance 2005). Promoting easily accessible health care, family support, the reduction of poverty, and improving educational attainment can all be achieved by breaking down language barriers with bilingual education. Bilingual education also affects immigration, anchor babies (U.S. born children born to undocumented immigrants), driver license permits, and the issuance of social security cards. Access to these items and everyday issues may seem trivial to some, but, according to Zentella (1997), these everyday privileges that many U.S. citizens may take for granted, when not available, create an even greater barrier for Latinos to attain individual success. It is very clear
that our current president understands this urgent topic. President Obama
was recently quoted as saying that the issue of language and immigration had
jumped to one of his top five agenda items (2009).

CONCLUSION
This author therefore proposes that by standing up and addressing important
and urgent topics like bilingual education, Latinos will open the gateway for
other populations to benefit from their efforts. By having their linguistic
situation evaluated objectively, Latinos will assist the United States in
continuing to be competitive worldwide and educated as a diverse nation.
These efforts will create a diverse, motivated, and united superpower that is
educated, competitive, and respected worldwide. As such, the largest growing
sub-population in the United States, Latinos, will become an integral part of
American society, like other immigrant groups that have gone through the
same experience.
REFERENCES


THE EPIDEMIC OF HIV AMONG AFRICAN AMERICAN WOMEN

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ABSTRACT

HIV has reached epidemic proportions in African Americans. Specifically, most women living with HIV are black, and HIV/AIDS is the leading cause of death for black women aged 24-34. Previous research attributes this high incidence to the lack of HIV testing, racial disparities in health care and socioeconomic status, and multiple sexual partners. Even after such research, and the application of existing results, HIV seroprevalence in African American women is still increasing. Thus, the present research aims to uncover other social or economic factors that may be contributing to the high incidence of HIV among black women.

Since the early 1980s, the United States has participated in large-scale national research efforts to identify, understand, treat, and eradicate HIV/AIDS (Beatty et al. 2004). African American men and women are the most at risk group for HIV and AIDS in the nation (Fauci 2009). Although this group is only 12% of the population in the United States, African Americans account for 46% of those living with HIV in this country (CDC 2004). AIDS is the leading cause of death among black women aged 25-34 (Heron et al. 2007) with the reality being that one in every 30 African American women will be diagnosed with HIV in some point in her life (Hall et al. 2008). In 2006, women represented 35% of new HIV infections among African Americans, more than any other race. There are a number of risk factors that contribute to the increasing incidence of HIV in the black community, including a higher prevalence of sexually transmitted diseases (STDs), related stigma, and socioeconomic factors that all help to maintain the burden of HIV in the African American community. This research aims to discuss why the rates of HIV infection among African American women are so high, and to suggest other possible areas that should be researched further in order to decrease the number of new infections. Corollary to the main research question, the researcher will be looking at what is causing the rate of infection to be 15 times as high for black women compared to white women, and four times as high compared to Hispanic women. Research continues to focus on the stated risk factors, but it still has not had enough of an impact to significantly decrease the number of black women getting infected. For the
purpose of this research the terms “African American” and “black” are used interchangeably.

Although there are different ways to contract HIV, sexual contact is the primary mode of transmission (UNAIDS 2002). Sexual transmission of HIV requires unprotected sexual contact and sexual intercourse between HIV serodiscordant partners, in which one partner is HIV positive and the other is HIV negative (Miller et al. 2009). Since 1996, more AIDS cases have occurred among African Americans than any other U.S. racial/ethnic population (CDC 2003), which means they are experiencing HIV at a much higher rate. HIV was the leading cause of death for African Americans ages 25-44 in 2000, compared to it being the fifth leading cause of death for whites and the fourth for Latinos in this age group (CDC 2002). In 2001, the AIDS case rate among African American adults and adolescents was almost 10 times higher than among whites, 76.3 per 100,000 compared to 7.9 (CDC). Specifically, African American women account for 66% of all HIV/AIDS cases among women reported in 2005 (CDC). Research continues to focus on high-risk minority women and men who have sex with other men (Alleyne 2008) while ignoring black women as a separate risk group. More black women are contracting HIV than any other racial or ethnic group in the United States, and among those women living with HIV, black women account for the highest percentage. In 2006, the rate of new infections in black women was 15 times higher than white women per 100,000 women (CDC 2008). HIV primarily affects homosexual men but the CDC reports high-risk heterosexual contact as the source for 80% of newly diagnosed infections of women in 2006. Unprotected sex between infected men plays a role in the increasing number of infected black women (Payne 2008; Gomez et al. 1996). Heterosexual contact and injection drug use were the primary modes of HIV transmission for African American women, but over the last 20 years, more women have become infected through heterosexual contact than through injection drug use (Hader et al. 2001).

**METHODS**

The present research aims to examine socio-cultural indicators that contribute to the high incidence of HIV infection in African American women. The population for this study is being limited to African American women currently living in the United States. Data for the present research may include other ethnicities of African people that currently live in the United States, but who may not have been born in the United States. The current research only requires African American women who self-identify as “black” or “African American,” since there are those who may be of mixed race and
may choose to identify with other ethnicities. Research also tends to treat blacks in America as one whole group even though there are different ethnic groups within the African American community.

The researcher examined epidemiological and sociological studies to determine which indicators, if any, directly affect the high rate of HIV infection in black women. Indicators can be socio-cultural, socioeconomic, or psychosocial. Various data on the number of African American women with HIV is analyzed to determine a relationship between HIV infection and a specific indicator or group of indicators. Journal articles, experiments and studies on African American women with HIV were reviewed in order to find common risk indicators and behaviors. The researcher looked for adequate research methods and designs that included African American women in their population samples. Those studies that did not have a significant representation of black women were not used.

**LITERATURE REVIEW**

Zierler and Krieger (1997) found structural factors such as racism, poverty, and inadequate access to health care to be the causes of existing and new HIV infections in the African American community. They also discussed how those factors increased rates of infection among women of color. Another study, one of the first public health articles to focus on the experiences of women with HIV, was done by Anastos and Marte in 1989. They wrote about how a woman’s social status and geographic location affects her risk for HIV, maybe more than drug abuse and sexual practices. According to the authors, poor women of color are at a greater disadvantage because “poverty and lack of resources and opportunity keep them in areas of high HIV seroprevalence” (Anastos and Marte 1989, 10). For years, women in the United States faced inequalities in the workplace and now social inequalities are affecting their exposure to HIV/AIDS. Zierler and Krieger (1997) examined the epidemiology of HIV and AIDS among women in the United States linking inequalities of class, race/ethnicity, gender and sexuality with the distribution rate of HIV infection. This study was monumental in prompting public health researchers and epidemiologists to integrate data on women’s social, economic and political conditions into HIV surveillance statistics. It is because of these four categories that women are becoming more at risk for the virus. During the period from 1984-1995, AIDS cases among women rose from 6% to 19%. Statistics show the majority of women living with AIDS in the United States were poor women of color with 75% being non-Hispanic black or Hispanic women (CDC 1996). The death rate due to HIV among black women was nine times higher than white women.
in 1994, and black women accounted for 54.7% of women with AIDS and had the highest number of new infections in 1995 (CDC 1996). With rates of infection increasing since the onset of HIV in the early 1980s, research was essential in this vulnerable population of African American women.

Zierler and Krieger go on to describe how social and economic policies under the Reagan administration forced millions of women out of their jobs and into poverty (Plotnick 1993), most of these women being African American or Hispanic. The “War on Drugs” campaign during the 1980s did not help the number of women of color living in poor neighborhoods where illegal drug trafficking took place, increasing their risk to HIV infection due to injection drug use by them or their sexual partners (Lillie-Blanton 1993; Lusane 1991; NIDA 1991; U.S. DHHS 1985). The researchers also discussed the effects of racism and gender inequalities in relation to sex, violence and drugs as reasons for the increased burden of HIV in populations or color. These studies observed the social surrounding and societal inequalities of black women that place them at a high risk to HIV. This factor still does not provide a conclusion for the increasing number of HIV cases among black women. HIV intervention programs have not been used in a way that speaks to black women specifically. More emphasis on structural intervention is needed to help combat these social inequalities of race and gender among women of color. Zierler and Krieger’s study set out to find out what accounts for the distribution of HIV cases among women in the United States, but it was not specific to African American women. When most African American women are contracting HIV through heterosexual contact, a more explicit study on this type of transmission would benefit the African American population. More research is needed in determining the risk factor for those women who contract HIV from a male sexual partner. In 2007, the CDC published a table reporting HIV cases for female adults and adolescents by transmission and race/ethnicity (CDC 2007, Table 24). Out of the 8,119 black/African American women who became infected in 2007, 44% contracted HIV through heterosexual contact. Under that category is a sub-category of “sex with HIV-infected person, risk factor not specified.” Of the 3,561 women, 3,054 belong to this sub-category. Another 45% of the total number of infected women are in the “Other/Risk factor not reported or identified” category (CDC 2007, Table 24). Research needs to uncover the risk factors of those not reported in the CDC data.

Underrepresentation of African American Women in Epidemiological Studies

In 2004, women accounted for nearly half of all people living with HIV worldwide (UNAIDS) and rates among women in the United States have
steadily increased, accounting for 29% of all newly reported HIV diagnoses (CDC 2002). Research has shown that intervention strategies that appeal to the cultural sensitivity of at-risk populations produce greater reduction in high-risk behaviors (DiClemente and Wingood 1995; J. Jemmott, L. Jemmott and Fong 1992). Another researcher, Kelley states, “...we need not only to change the behavior of individuals but also change social networks and communities…” (1999). If researchers are to provide suggestions on how to decrease the epidemic of HIV in the United States, more focus needs to be placed on those populations with the most infections, in this case African American women. Rates of new infections are increasing among blacks while rates in other ethnic groups are decreasing. Marin et al. (1995) reviewed 41 studies published from 1986 to 1995 and found that only four were adequately designed and showed substantial behavior change. Out of those four studies, only one focused on high-risk women. Women are at a higher risk for HIV infection around the world due, in part, to inequalities in society.

**HIV Testing Among African American Women**

In a study that examined the prevalence of HIV testing among sexually active black women in the U.S. and the associated social, behavioral, and health care factors, researchers Nearns, Baldwin, and Clayton (2009) found only 28.8% of the women sampled reported having had HIV testing between 2001 and 2002. These results are said to be consistent with previous research by Anderson et al. (2005) who found that only 29.9% of non-Hispanic, black women were tested for HIV during the previous year, and went on to conclude that HIV testing is more common among African Americans and other high-risk populations. However, with a sample size of only 5,226, 29.9% does not constitute “more common” among the general African American population. With HIV rates being disproportionately high among black women, a sample with only 12% being African American does not adequately represent the target risk population, and therefore cannot provide significant results. In addition to Anderson's study, Brown et al. (2007) examined HIV testing, high-risk behaviors and condom use among an ethnically diverse sample of women and found that black women were three times more likely than white women to report having an HIV test in the past year. Returning to the study by Nearns et al. (2009), 55.3% reported a ratio of income to poverty less than 200%, but 83.8% had more than a high school education, 72.8% had continuous health insurance within the past year, 78.1% had a Pap test in the past year, and 79.7% had not engaged in HIV risk behaviors in the past year. Also, 81.7% had a monogamous male partner in the past year. Persons with increased risk for HIV, drug use or risky sexual behavior had higher reported testing during their lifetime. Nearns et al. found few associations between HIV testing in the past year and socioeconomic
status, or SES, among this group of non-Hispanic black women. These findings suggest black women have similar rates of HIV testing regardless of SES, contrary to previous research (Anderson et al. 2005; Brown et al. 2007; Ostermann et al. 2007). Both Brown et al. and Anderson et al. reported that black women were more likely to get an HIV test, but Nearns et al. does not confirm this conclusion. The CDC also reports that many at-risk black women are not being tested for HIV (CDC 2006).

African American Women and Their Sexual Experiences
Some of the research focuses on the cultural and social structures that influence sexual practice (Bolton 1992; Carrillo 1999; Parker 2001), because structural, political, and economic factors shape sexual experience (Singer et al. 1990; Farmer 1992; Schoepf 1991). As a result, this information tells us more than studying women’s individual sexual behaviors and related factors. Research that looks at each race separately to determine cultural and social settings that regulate sexual interaction also provides much needed information that is unique to each population (Parker 2001).

Heterosexual contact has become the primary cause of HIV infection among women in the United States (Gatali and Archibald 2004; Fullilove et al. 1990; Frasca 2003; Miller et al. 2007; Gomez and Marin, 1996). As the primary method of HIV infection shifted from injection drug use to heterosexual contact, researchers Wingood, DiClemente and Hunter-Gamble (1993) were able to predict the possibility of HIV affecting African American women at a much higher toll in the future. These researchers were able to identify African American women as an understudied population at increased risk for infection (Wingood and DiClemente 1998). In a study that examined partner influences of non-condom use among African American women, Wingood and DiClemente found women whose sexual partners did not use condoms, were four times as likely to believe negotiating condom use implied an unfaithful partner, and were three times as likely to have a partner who resisted condom use (Wingood and DiClemente 1998). With a sample size of 128 women from the Bayview-Hunters Point neighborhood in the San Francisco Bay Area, where 84% of the community is African American and 24% live below the poverty line, Wingood and DiClemente assessed behaviors such as sexual behavior, substance use, condom use, and sexual self-control. Results concluded that 45% of these sexually active African American women did not use condoms under the belief that asking their partner to do so would “imply infidelity or may compromise the stability in the sexual relationship” (Wingood and DiClemente 1998, 47). Such patterns of sexual behavior are important in determining how women choose their sexual partners.
To better understand how social class, education and drug use effect sexuality, Fullilove et al. also carried out a study on 28 black women and teenage girls in the Bayview-Hunters Point neighborhood in the San Francisco Bay Area (1990). With the notion that AIDS education is not culture specific, the researchers have noted that an increase in cocaine use, a decline in the economic status of the black community, and an increase in STD infection in black adults and adolescents all contribute to the spread of HIV in urban communities (Fullilove et al. 1990). Using questions such as “How do black couples negotiate meeting potential sexual partners and initiate sexual relations?” helped the researchers initiate conversations about sexual behavior.

African American Women and Condom Use
Women who are in long-term heterosexual relationships may be at greater risk to contract HIV because condom use is limited. In a study that examined 423 sexually active African American women, results concluded that women in exclusive relationships reported less commitment to using condoms (St. Lawrence et al. 1998). This finding suggests that being in a committed relationship with someone known to be uninfected lowers the desire for condom use. If women are trying to get pregnant, using condoms would be unreasonable (Weeks 1995). In addition to this reason, there are a number of different reasons why women do not use condoms. If women feel they are in a committed relationship they likely would have no reason to think that their partner is having outside sexual partners. As a result, condom use becomes less of a priority in such relationships despite the risk for infection.

Other than the lack of condom use, high rates of HIV infection in African American men creates a greater risk for African American women to contract HIV/AIDS (McNair and Prather 2004). African American women are among those least likely to date outside their race (Staples 1981), so they are more likely to have sexual contact with African American men, making this social factor a contributor to the increasing number of women being infected with HIV (CDC 2003). If men are not disclosing their sexual orientation and having unprotected sex with these women, the men are presenting a greater risk for women to become infected. African American women are said to use condoms inconsistently, increasing their chances of contracting sexually transmitted infections. According to existing research, African American women in relationships may be afraid to negotiate condom use with their partners because it is not ‘romantic’ or implies infidelity. A questionnaire completed by 393 low-income, sexually active African American, Hispanic and white women who attended family planning and STD clinics was used to determine how relationship dynamics and ethnicity affect condom use among
low-income women (Soler et al. 2000). The data comes from the social and health service center these women attended in 1994 and 1995, and shows that black and Hispanic women reported higher levels of consistent condom use compared to white women. A large percentage (90-95%) of African American and white women said they were comfortable talking to their partners about using condoms with only 76% of Hispanic women agreeing. A multivariate analysis of the data showed evidence of African American and Hispanic women being more likely to be consistent condom users than white women.

RESULTS

For the past 20 years, there has been documented success of prevention strategies targeting behavioral risk education (Soler et al. 2000), and reports of a decline in the number of annual new HIV infections from 150,000 to 40,000. These findings offer evidence that prevention efforts work (Wolitski et al. 2003), but these efforts have not worked to help decrease the rates of HIV infection within African American communities. Wolitski et al. found that, while rates of HIV infection among African Americans are increasing, rates among white Americans are decreasing (2003). Essentially, these prevention efforts are not reaching the black community as effectively as they are elsewhere. There is a need for more culturally appropriate efforts that are specific to the values and cultural norms in the black community. Strategies should be focused on approaches intended for African Americans (Smith et al. 2000). HIV prevention strategies and programs are not appealing to the cultural differences in these two populations. Studies have shown ‘culturally tailored’ interventions produce reduction in high-risk behaviors (DiClemente and Wingood 1995), supporting the need for changes in the “social networks and communities” that African American women participate and live in, according to Kelley (1999).

Black women are dying at rates higher than any other race or ethnicity due to HIV infection and AIDS. Too many studies that focus on HIV-infected women suggest that African American women are less educated, drug and alcohol users/abusers who cannot negotiate condom use with their male partners. If race was a major risk factor for HIV infection, then anyone who was African American would be at high risk for HIV. Anyone who was poor, used/abused drugs or alcohol, or had a minimal education would also exhibit high rates of infection similar to that of African Americans. Under this suggestion, all races/ethnicities would experience high rates of HIV infections, because African Americans are not the only race that uses/abuses drugs or alcohol, etc. As HIV-infected women tend to be of minority race,
specifically African American, research needs to determine what other risk factors besides drug/alcohol use, education and geographic setting contribute to the rising number of black women infected with HIV each year. As one of the leading causes of death in the African American community, it is pertinent to society to resolve this issue. Research has come very far since HIV/AIDS first introduced themselves to the lives of African American women in the United States.

**CONCLUSION**

Prevention efforts aimed to reduce at-risk behavior shaped by social, cultural and economic forces not under the individual’s control will not decrease the number of black women infected with HIV. A more in-depth study of HIV-positive African American women is needed to further determine what can be done to decrease the number of infected women. The researcher’s future goal is to decrease the number of newly infected African American women in the United States, along with other scholars already focused on this plan. Hopefully this plan will lead to answers on how to stop the progression of HIV infection in the African American population. However, while the pursuit of this goal could lead to an answer, the present research is only the beginning, an argument for the question not an answer. Scholars, the HIV/AIDS community, and those infected by HIV/AIDS must continue to ask the question: Have we really found the reason for such high rates of HIV infection in African American women? Before any answer can be reached, further examination of the cultural norms should be analyzed from the perspective of the African American population. Questions should be developed from a black cultural standpoint and not from a European standpoint, since that populace within the black value system determines behavior. Answers to these questions will be rooted in the black value system and be more effective in changing negative behavior patterns among African American women.

Future research areas should identify the reasons why some African American women view condom use in a negative way, and how research can design and implement intervention programs that respond to the political and economic limitation society has placed upon the black community. Apparently sexuality is openly discussed in the black community through music, literature and community settings such as barbershops and beauty salons. It is through this open dialogue that researchers can aim to incorporate discussion about HIV/AIDS as a way to ultimately “develop effective AIDS prevention for black women” (Fullilove et al. 1990, 50). As this idea to develop open discussions about sexual behavior and how it affects a woman’s ability to choose sexual
partners and negotiate condom use is a creative way to get black women talking about HIV/AIDS, it is also important to help black women assess their partners’ risk factors for HIV/AIDS before engaging in sexual activities.

In order to fully determine why black women are overrepresented in the number of new HIV infections each year, research must uncover the category of risk factor not yet identified. The risk factor of the male partners needs to be assessed so that researcher can start developing culturally appropriate prevention programs that address black women’s ability to establish safer sex practices.
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PATH INTEGRATION IN RATS AFTER BLOCKADE OF NMDA RECEPTORMEDIATED GLUTAMATE TRANSMISSION

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ABSTRACT

Our knowledge of a form of navigation known as “path integration” (also called dead-reckoning) is very limited. The present study, based on Morris’s famous water maze experiment (1982), tested Long Evans rats for their ability to use path integration to return to a hidden platform after manually being misplaced. Because MK-801, an NMDA antagonist, interrupts the formation of spatial memory, it was hypothesized that rats under the influence of MK-801 would perform at a slower rate compared to the control rats. The findings did not support the hypothesis, but instead suggested that the drug caused a generalized swimming deficit.

Have you ever thought about how animals find their way in search for food in the dark and are able to return to their homes? Some animals can see in the dark, such as cats, bats and owls. But other species such as rodents are capable of navigating in the dark, not using their sight, but rather by using a magnificent ability called dead-reckoning. Dead-reckoning (also known as path integration) refers to the process in which an animal uses movement cues to continually update its current position in respect to its starting position (Wishaw and Maaswinkel 1998). Movement cues utilized include the vestibular and proprioceptive systems.

The function of the vestibular system in animals (including humans) is for balance and spatial orientation and provides an input for movements. Without the vestibular system, many animals would not be able to accurately navigate in their environments. The function of “proprioception” is to sense the movement of body parts and to keep track of where the various parts of the body are located in relation to each other. The proprioception sense keeps the animals aware of their body parts and the size of each movement. These senses would enable a rat searching for its food to know the direction and distance needed to take the rat directly back to its home.

Many researchers, including neuroscientist Ian Q. Wishaw, from the University of Lethbridge, and neuroscientist Richard G. Morris, from the University of Edinburgh, have attempted to fully understand path integration. But this ability, possessed by certain animals, proves to be too complex for a few studies to explain. By completing this research, more information will be added to the body of knowledge of path integration to better understand this capability. This research will specifically focus on the
rat’s ability to use its vestibular system to backtrack to its original location. It is hoped that this research will lead to a better understanding of what role the vestibular system plays in path integration.

Certain animals use the unique ability of path integration to navigate in the dark. Wishaw (1998) argues that rats can use their vestibular system along with proprioception to remember their starting location in respect to their current location. The present research hypothesizes that if Wishaw’s statement is true then rats under the influence of MK-801, a drug that inhibits memory, should have a harder time remembering where their starting location is in respect to their current location, and should take longer to return to their starting point. The present research will test this hypothesis by asking this question: How does the drug MK-801 affect path integration using the vestibular system in rats performing a water maze task?

LITERATURE REVIEW

This literature review focuses on existing research about the navigation process, the Morris Water Maze laboratory test, and the N-methyl-D-aspartate (NMDA) Receptor.

Navigation

Psychologist Charles R. Gallistel (1990) from Rutgers University uses the term navigation to refer to the process by which the course of a journey is determined. In many respects, the principles are the same regardless of the length of the course or the terrain being traversed. As an example, a frog trying to maneuver around an obstacle to get to its meal and a bird setting off from Nova Scotia en route to Argentina are faced with similar problems. Even though the intents of the two animals are different, they both use navigation accurately to get to their end goal. The end goal for the frog is to get to its food and the end goal for the bird is to get to a different place.

The ability to navigate accurately to a destination is important for the survival of many species. Scientists describe two different types of cues used for navigation. The first are landmarks found in the external environment, and the second is the use of internal self-movement cues, such as one’s vestibular system, to continually monitor the distance and direction of movement.

When animals use landmarks to navigate, they rely on using the known position of objects in the environment to get to their destination (Gallistel 1990). Cartwright (1982) performed an experiment that showed that the honey bee uses visual landmarks to return to the food source. The honey bee compares the image of the location of the food source to the stored image in its visual system. When attempting to return to a food source, the honey
bee flies around the target area until the image in its retina matches what it actually sees. For this matching of images to be accomplished, the bee must pay attention to the angle of each landmark in relation to one another and to where the food source was located. Once the images match, the honey bee should be at the location of the food source.

The second type of navigation that animals use is path integration. Path integration is the process where the current position is estimated by continually integrating movement speed and direction over time from its last known position (Calton and Taube 2009). Animals such as rodents have a unique ability to find their way using this form of navigation. For example, a rat is able to search for food in the dark and once the rat finds the food pallet, it can take the shortest route to go directly to its home even when landmark cues are unavailable (Whishaw 1998). The rat’s ability to take the most direct and shortest route back to its home shows that while the rat was moving about the environment looking for food, it was continually integrating its current location in respect to its home. It is likely that animals use signals from the motor, vestibular, and proprioceptive systems to keep track of the speed and direction of movement while path integrating (Gallistel 1990).

Another cue that can be used to navigate by path integration is the rate of optic flow. Optic flow is the movement of images across the visual field that occurs while the animal is in motion. Esch, Zhang, Srinivasan, and Tautz (2001) did an experiment in which they found that the honey bee dances to communicate distances measured by optic flow. When a honey bee returns from a food source, it performs a dance to signal to other honey bees how long they will have to travel to get to the food source. The dance tells the other bees in which direction to travel and the amount of image motion that is expected to occur when heading to the food source. To demonstrate that bees use optic flow to estimate the distance traveled, Esch et al. (2001) had the bees fly through a tube with lines painted on the inside. By altering the thickness of the lines, the authors were able to alter the perceived distance as measured through optic flow. Esch et al. conducted the experiment to measure the influence of optic flow on path integration in honey bees, but what instruments can be used to test path integration in animals such as rats? The present research answers this question by focusing on the use of a water maze to test for path integration in rats.

Morris Water Maze
The Morris Water Maze is a laboratory test for navigational ability that was first described by Richard G. Morris of the University of St. Andrews, P. Garrud of the University of St. Andrews, J.N.P. Rawlins of the University of Oxford and J. O’Keefe of University of London (1982). In this famous
study, rats searched for a hidden platform placed in a pool filled with opaque water. At the beginning of each trial, the animal was placed in the pool at a random position. Even though the top of the platform was concealed in the water, after many trials the rats were able to swim directly to the platform to escape from the pool. Because of its simplicity and ease of use, this test has become one of the most common strategies for assessing navigational abilities and spatial memory formation in rats. The formation of spatial memory occurs as neurons communicate with one another by a process called synaptic transmission through N-methyl-D-aspartate (NMDA) Receptors.

N-methyl-D-aspartate (NMDA) Receptor
The N-mythyl-D-aspartate (NMDA) subtype of the glutamate receptor is one of the more commonly found neurotransmitter receptors in the nervous system. These receptors can be viewed as doors that, once opened, allow sodium ions and calcium ions into the neuron that facilitates the production of memory. If this receptor is blocked by other chemicals such as ketamine or MK-801 then sodium ions and calcium ions will not be able to enter the neuron, thus interrupting the production of memory (Ahlander et al. 1999).

Morris (1986) suggested that neurotransmission mediated by the NMDA receptor is responsible for the formation of place memory. In his experiment, rats that were well-trained in the water maze were given a drug that is an NMDA antagonist called aminophosphonovaleric acid (AP5). The rats receiving the blockade of NMDA transmission were not able to perform the task as efficiently as the control rats. Morris interpreted that the blockade at the NMDA receptors caused the experimental rats to have trouble forming new spatial memory.

However, Whishaw, Cassel, and Jarrard (1995) performed an experiment suggesting that poor performance in the water maze may occur due to something else besides an inability to form a new spatial memory. In their 1995 experiment, the authors examined rats that had received a lesion to the major pathway in the brain that sends information to the hippocampus to see if these rats displayed a correct place response in a swimming pool task. The hippocampus is the area of the brain responsible for the formation of long-term memory and spatial memory. Therefore, if the hippocampus of the rats was nonfunctional then the rats should not be able to form new spatial memory, making it harder for them to find the platform and exhibit a place response. Place response is the process in which the rat appears to know the location of the platform by swimming towards it. They discovered that these lesioned rats were extremely impaired in their ability to identify the platform in a fixed location. The researchers further explained that these
rats were unable to find the platform, not because they did not know where it was, but because they were not able to generate the shortest route to get to the platform (1995). In a sense, the hippocampus lesions affected the rats’ path integration ability. Whishaw et al. (1995) explained that the rats’ inability to find the platform is a dissociation between the two processes of “getting there” and “knowing where.”

**METHOD**

Before the present researcher designed a method to test for the effects of MK-801 on rats, he reviewed the procedures Morris and Whishaw used for their experiments. In order for the current experiment to run as successfully as possible, the researcher incorporated certain aspects of Morris’ and Whishaw’s previous experiments to best fit the present research question. With the goal of creating a test similar to Morris’ and Whishaw’s procedure, the implications of the current research can provide explanations or reinforce what was already found by previous researchers.

**Subjects**

Eighteen female Long Evans rats were used in this experiment, similar to the subject pool of Morris and Wishaw. All eighteen rats had free access to food and water. The weight of each rat was kept in the range of 160 to 250 grams so that each subject was as similar as possible. Each rat was housed singly in a metal cage and maintained on a 16/8 hour light/dark cycle.

**Materials**

For this experiment, a child’s pool with a diameter of 2 meters and a height of 16 centimeters was used as the water maze. The pool was placed on top of a table that was approximately one and a half meters high. White tempura powder was added to the pool to make the water opaque. A plexiglass platform, 15cm in diameter and 13cm tall, was placed within the pool. The raft was a rectangular container that could hold the rat’s weight, so that it would not sink if the rat moved about. The raft was approximately 10-inches long by 5-feet wide by 5-feet deep. The drug MK-801 (dizocilpine) was obtained from Sigma Chemical Company in St. Louis, Missouri. This drug was administered to the rats at a dose of .05 mg/kg at a volume of 2ml/kg with an insulin syringe.

**Procedure**

The rim of the pool was divided into six evenly spaced sections. On each training day, rats received four training trials. At the start of each trial, the platform was placed in one of the six random sections in the pool, each being 12 or 20 inches away from the rim of the pool, for a total of 12
possible starting positions. A trial began by placing the rat in the raft and on the platform for 10 seconds. The researcher manually pulled the raft to one of the twelve fixed locations in the pool. The researcher then cast the rat off once the raft could no longer be pulled. Because rats dislike being wet, the rats would immediately begin swimming to find a way to escape from the pool. Each rat was given 60 seconds to find the platform to escape from the aversive pool of water. If the rat was unable to find the platform within 60 seconds, the researcher guided the rat to the platform by gently pushing the rat from behind. Once the rat found the platform, whether the rat was assisted by the researcher or independently found the platform, it remained on the platform for 10 seconds. After 10 seconds the rat was then removed from the platform and taken out of the pool to be dried and put in its designated cage; the next rat was similarly treated. Each of these training trials was repeated for each animal four times a day. After thirteen of these training days, the rats could perform the task in an average time between 30-40 seconds and they were then considered trained. The researcher then began the test phase of the experiment.

On Test Day 1, half of the Long Evans rats were injected with 0.05 mg/kg of MK-801 prior to the test trials. After 30 minutes passed to allow the drug to take effect, all of the rats were tested on the water maze in the same manner in which they were trained on the training days. On Test Day 2, all the rats were treated the same as they were during Test Day 1 except that the platform was made visible by applying black tape to the edges. This would allow the assessment of visually guided navigation and the effect of the drug on the general swimming ability of the rats.

**Results**

As each rat was tested in the water maze, the researcher recorded the time it took each on to find the platform and averaged all the scores for each training day. Figure 1 is a line graph that shows the average times it took for the rats to find the platform for each training and test day. Each score plotted on the graph was averaged by day.
As indicated in Figure 1, the time to find the platform significantly decreased over training for both groups [$F(12, 192) = 5.13; p < .001$]. A two tailed $t$-test was used to compare the average score of Test Day 1 (the hidden platform test) of the control rats ($M = 29.99, SD = 10.27$) to the MK-801 rats ($M = 35.61, SD = 8.55$). The analysis showed that there was no significant effect of Test Day 1 between the control group and the experimental group [$t(16) = 1.26; p > .05$]. A two tailed $t$-test was next used to compare the average score of Test Day 2 (the visible platform test) of the control rats ($M = 6.58, SD = 1.98$) to the MK-801 rats ($M = 12.61, SD = 4.95$). The data shows that there is a significant effect of Test Day 2 [$t(16) = 3.39, p < .01$], with the MK-801 rats taking longer to find the platform. This finding suggests that the drug was impairing the ability of the rats to reach the platform even though the goal was clearly visible.

**DISCUSSION**

The researcher used the drug dizocilpine (MK-801) in an attempt to disrupt the process of vestibular-driven path integration in Long Evans rats. Test Day 1 revealed that the drug MK-801 had no effect on path integration. Even though the control rats’ average times were a little faster than the experimental rats’ times, the averages of the two groups were not significantly different; thus, the researcher could not make the claim that the rats’ ability to use path integration was disrupted by the drug.

There is a possibility that the rats did not perform well on Test Day 1 because the test did not actually test path integration. Because the researcher pulled the raft away from the platform while the rat was on the raft, the rats were not able to use their motor ability to travel away from the platform. And because the rats were not allowed to move away from the platform on their own, proprioceptive and motor cues normally used for path integration were not available. In the end, the attempt to isolate the use of vestibular cues for path integration may have resulted in the use of other strategies besides path
integration to find the platform. Further analysis may be performed in the future to assess whether the rats truly used the strategy of path integration or a different strategy to find the platform.

Test Day 2 was a navigational test allowing the rats to use environmental cues (the visible platform) to reach the platform. In this test the control rats performed significantly faster than the experimental rats, which suggests that the rats under the influence of MK-801 had a more difficult time performing the task because the drug affected their motor ability. The control rats had no problem reaching the platform and they completed the water maze with an average time that was half the time of the experimental rats.

The researcher did not conduct another hidden platform test day with an increase in dose for the rats because the drug appeared to affect the rats’ motor ability more than the rats’ ability to navigate. If the experimental rats were given a higher dose of MK-801 then the rats would have likely had an even harder time getting to the platform because of the drug induced motor deficits.

In previous research, Wishaw et al. (1995) performed a water maze test on Long Evans rats to see if they could navigate to find the hidden platform after the input to the hippocampus was lesioned. Wishaw discovered that the lesioned rats performed poorly in the water maze test compared to the rats that did not receive the lesion. He could not conclude that his experimental rats inability to find the platform was due to an inability to accurately execute motor responses, or if the lesions affected the rats’ ability to learn the location of the platform.

In response to Wishaw’s (1995) question, the present research shows that MK-801 does affect a rat’s motor ability, more so than the ability to navigate using vestibular-driven path integration. Once under the influence of the drug, the experimental rats were not able to coordinate movements as accurately as the control rats. It took the experimental rats two times longer than the control rats to find the platform.

Several aspects of this study could be improved for future experiments. When the rats were placed in the raft that was on top of the platform, it was not clear if the rats understood that the position of the raft also marked the position of the platform. To enable the rats to understand that there is a platform for them to stand on, a future study should include a procedure where the rats are placed on the platform before they are put into the raft. By doing so, the rats should become aware that a platform is present in the water maze; they will then likely understand that they can stand on the platform to avoid drowning.
Future researchers should also consider moving the rats off the raft by more natural means, such as making the raft sink to force the rats out. In the present study, when the researcher cast the rats off the raft, most of the rats kept swimming toward the side of the pool where the researcher was removing the raft from the pool. The rats swam at that location anywhere from one to five seconds. This had the potential to skew the data by affecting the average times to find the platform. But if the raft could be somehow made to sink naturally, then the rats would not likely exhibit this tendency. With this new strategy implemented the time it takes for the rats to find the platform likely will be more accurate.

**CONCLUSION**

The completion of the current experiment shows that the drug MK-801, an NMDA antagonist, affects the navigational performance of rats by interrupting their motor capabilities. Because this NMDA antagonist appears to affect both spatial learning and motor control during navigational tests, the researcher could not measure how much effect MK-801 has on spatial learning and motor control. In the future, NMDA antagonists such as MK-801 should not be used to test for navigation ability unless it is fully understood how much the drug affects both spatial learning and motor control in the test subjects.


THE RESPONSE OF THE MEXICAN WORKING CLASS TOWARDS THE CALIFORNIA ECONOMIC RECESSION

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ABSTRACT

This study explores how the 29.2 million Mexicans living in the United States, specifically those living in California, are responding to the current economic recession. High job loss, housing foreclosures, and economic turmoil spur further instability in an already vulnerable population. These immigrants play a crucial role in the economy of California and the United States; therefore, their responses to the current economic crisis will impact their future, and the future of the entire country. Through the use of four case studies, this study examines the attitudes of and the forced decisions this population makes as they negotiate the recession.

The current economic crisis is wreaking havoc amongst the population of California. The National Bureau of Economic Research (NBER) established the month of December 2007 as the beginning of the current economic recession in the U.S. According to NBER (2009), an economic recession is a significant decline in economic activity, lasting more than a few months, which has a visible decline in profits, employment, industrial production, wholesale and retail sales. With this definition as a reference point, California is one of the states most impacted by the nation’s economic downturn.

As of June 2009, California posted an 11.5% unemployment rate, one of the highest unemployment rates in the nation (U.S. Labor Statistics 2009). As the population braces for further losses in employment, housing, and services, the Mexican immigrant in the United States is poised to suffer the most (Simmons 2001). The correlation between population and income numbers sets up the probability of this group being impacted the most out of any other minority group in California (Smith 2008). The Mexican population is the largest single group in the state of California with 11 million out of 36.5 million people (U.S. Census 2006). Out of this population, 40% fall below the poverty line, making this group highly vulnerable to these challenging economic conditions (Pastor 2009). Note: “Mexicans” are only one type of Latino ethnic group. Oftentimes, studies lump all Latino groups together and...
refer to them generically. However, it is important to acknowledge that 68% of Latinos living in the U.S. are Mexicans.

The high vulnerability experienced by the Mexican immigrant in comparison to other ethnic groups results from the lack of preparedness due to a low level of education, lack of capital, lack of employment equity, lack of upward mobility and opportunity, discrimination, and lack of political clout (Valenzuela 2009). It is ironic for this population to leave one country in pursuit of a better life with the ability to produce so much wealth for the state of California, and yet live in the shadows of the American dream. Presently, regulators and politicians struggle with the issues tied to this population but they have yet to find a meaningful solution.

This study explores the impact of the economic recession as it relates to the Mexican population living in California. There has been a huge population explosion, producing a workforce that has become the backbone of the Californian economy. This workforce once yielded great economic power for the state that is now stalling, suggesting that much economic energy is going to waste (Pastor 2009). More specifically, this study explores four Mexican immigrants’ perceptions of and responses to the current economic recession. To begin examining this issue, the first objective of this study is to provide a demographic overview on the status of Mexican immigrants in the United States. With this information serving as a foundation, the responses and opinions of Mexicans actually living in California towards the recession are shared in four case studies. A sociocultural approach will frame the literature review and guide the discussion of the findings to answer the research questions: What are the thoughts of the Mexican working class towards the economic recession? What role will the Mexican population play in the future of California? The literature review highlights important data that helps to understand why the current economic recession has a unique impact on the Mexican population living in California. This study is important because it brings significant insight to a population not well represented in political circles or in higher education. Therefore, this study highlights the value of this population to the state of California.

LITERATURE REVIEW

The Mexican population in the United States has risen dramatically since the 1970s. Even though United States immigration laws have been a challenge for Mexicans, Mexico is one of the leading countries for legal and illegal migrant workers to the U.S. (Center for International Studies 2002). The migration of Mexican citizens was initially encouraged by the United States in 1942 via the international agreement with Mexico called the “Bracero
Program.” This guest worker program recruited Mexican farm laborers to migrate and work the fields of the United States (Marentes 1999).

Large-scale settlement in the U.S. by Mexicans began in the 1970s as a result of the ending of the Bracero program (Marentes 1999). By 1980, Mexicans were the largest foreign-born population in the nation, with 2.2 million first generation Mexicans living in the United States. The number of Mexican immigrants doubled from 1980 to 1990, and more than doubled again from 1990 to 2000. While the growth rate of the Mexican immigrant population has slowed considerably since 2006, the cumulative increase was almost 17 times larger in 2008 than in 1970 (U.S. Census 2006).

Presently, Mexicans represent close to one-third of California’s population. The Pew Hispanic Center completed a study on the characteristics of first generation Mexican immigrants in 2008. The study found that Mexican immigrants in the United States as a group represented a younger population compared to any other group, and that this younger generation of Mexican immigrants had a significantly higher percentage of males. Furthermore, this population: (1) had the lowest number of U.S. citizens, (2) was less likely to have a level of education higher than grammar school, (3) was more likely to be in low skilled occupations, (4) was more likely to have bigger families, and (5) was more likely to have higher poverty rates (Gonzalez 2002).

The current economic recession in the United States poses challenges for United States citizens. Like many people in the United States, the Mexican population experiences the struggles of the economic downturn in the country. The housing crisis in the United States is one of the major factors that led many to lower their living standards. The dream of many Mexican immigrants is to own a home and many have accomplished their dream. There were about 1.75 million mortgages in the U.S. by June 2008. California is the top state suffering from home foreclosures. There have been more than 365,000 foreclosures in California since 2007 (Los Angeles Times, June 2009). The Pew Hispanic Center released a report in May 2009, where it made an association between the counties that had the highest number of foreclosures and the counties that are known as places where high percentages of immigrants reside. This association reflects the ever-growing trend in California where the loss of investment and housing by a population is disproportionately evident in a community located primarily in areas that deal greatly with blue collar and agricultural sectors. These trends are indicative of a workforce that is currently suffering the brunt of the economic downturn.
Demographics in the Labor Market

The subject of the Mexican immigrant in the labor force offers a variety of areas of research; however, this study will briefly cover the demographics of Mexican immigrants in terms of their composition in the labor market. It is highly important to understand that the choices this population makes in reaction to the economic downturn will directly influence the labor market.

Mexican workers represent two-thirds of Latino immigrants in the U.S. workforce (Pastor 2009). Mexican workers have a profound presence in the United States labor market, particularly in the service and agricultural sectors. Mexicans reflect 65% of the Hispanics in the service industry and 92% in the agricultural sector (Bureau of Labor Statistics 2005). One in every four foreign-born workers in the United States is from Mexico. Of the 18 million foreign-born U.S. workers in the labor force, including employed and unemployed workers, 4.9 million, or 27%, were born in Mexico (U.S. Census Bureau 2000). As this data indicates, the Mexican population holds a significant share of the low wage labor market. The demographics show that the Mexican immigrant is employed in the least coveted positions of the labor market due to the low wages and poor working conditions. This population is composed of a young work force that is ready and willing to work, which is indicative that the Mexican labor pool is more likely to remain underpaid as long as they are willing to work for less. Furthermore, as long as the economic crisis persists they will be willing to work for less to avoid being unemployed (Pastor 2009).

The Working Poor

In describing the experiences of Mexican immigrants in the labor market, it also important to pay attention to predetermined conditions that hinder upward mobility. As Pastor (2009) notes, the majority of the foreign-born Latino households contain three or more workers, which is twice the number for other ethnic immigrants and more than three times that for non-immigrants. In 2004, the average income for a Mexican family of four in California was rounded to $24,000. The overall Latino poverty rate is nearly 40 percent. Over half of the Latino population was already living in conditions extremely challenging even before the recession started. There are other factors that further aggravate those living in poverty. Individuals remain poor when they are not able to obtain employment because they lack the adequate skills necessary to perform the job, live long distances from available jobs, or have challenging child care responsibilities (Wilson 1996). However, Pastor (2009) notes that these factors are not the case of the Mexican population and instead he describes Latinos as experiencing a working poverty. There is a difference between nonworking poverty and
working poverty. Latinos live in working poverty because they almost always have some kind of job, but are not able to make a high income (Pastor 2009). Low levels of education are a principal reason why the Mexican population has a disproportionately higher poverty rate and lower income and labor socioeconomic status than other groups in the U.S. (Migration Policy Institute 2009).

Education
Education is a key component for economic stability and upward mobility (Gonzalez 2002). Even though Mexican immigrants have been present in the U.S. for many years, they are not only over-represented among the ranks of the low income, but also in low educational attainment. Latinos are concentrated in the lowest paying jobs and many lack the skills and education necessary for the procurement of better paying positions (Smith 2002). An increase in the educational level of the Mexican working class is perhaps the most important step in promoting economic prosperity. Yet, examining the educational pipeline for the educational engagement of Mexican immigrants show that the numbers are dismal, to say the least.

In California, only 5% of Mexican immigrants have graduated from a four-year college, while 84% have a high school education or less (Public Policy Institute of California 2008). This finding is evident in Latino youth, who live in communities where economic and social opportunities are limited. They have no ability to control the basic circumstances that shape the opportunities available to them through the schools they attend, the neighborhoods where they live, or the jobs are available to them (Portes 1994). Due to conditions such as ethnic and language differences, minority students are more likely to attend schools with fewer resources, including qualified teachers; these differences also contribute to lowered student achievement (Gandara 2003).

Educational Practices
There is also evidence that some of these practices, including instructional practices within classrooms and parent involvement practices within schools, vary by the ethnicity and socioeconomic composition of the student body, which could also lead to differences in student achievement among ethnic groups (Stipek 2004). Educated parents serve as role models for their children and establish higher expectations for their academic achievement. Furthermore, they are capable of helping their children in school assignments and answering questions about college from first-hand experience (Gonzalez 2002). However, for first generation Mexican children, the affect of parental education may not be as significant due to the low levels of education obtained by most Mexican immigrants (Gandara 2003).
A cultural deficit approach is often used in explaining the low educational attainment among Mexican immigrants. The cultural deficit model characterizes the Mexican culture as being incompatible with academic success because the culture emphasizes present satisfaction over future payoffs, family interdependence over individual success, and maintaining the Spanish language, which can create a lack of English proficiency (Gonzalez 2002).

**Academic Theories**
Mexican immigrants are considerably different from the average American in educational acquirement. Applying Critical Race Theory (CRT) and Latino Critical Theory (LatCrit) will further enable this researcher to explain the educational experience of this minority ethnic group. Solorzano and Yosso (2000) use CRT to argue that education theory, policy, and practice are used to subordinate certain racial and ethnic groups. *Critical Race Theory* is defined as “the work of progressive legal scholars of color who are attempting to develop a jurisprudence that accounts for the role of racism in American law and that work toward the elimination of racism as part of a larger goal of eliminating all forms of subordination” (Masuda 2001). CRT in education frames the experiences of different ethnic student bodies and further helps understand each in terms of disciplines, epistemologies and research approaches (Solorzano and Yosso 2001). Another theory that further explains the Latino experience in education is *Latino Critical Theory*, which is defined as “exploring how Critical Race Theory might expand beyond the limitations of the black/white paradigm to incorporate a richer, white supremacy, particularly as it impacts Latinos in their individual and collective struggles for self-understanding and social justice” (Iglesias 1997). LatCrit provides a better lens to analyze Latinos’ multidimensional identities and can address issues like language, immigration, ethnicity, sexism, classism, and other forms of oppression (Solorzano and Yosso 2001). Both CRT and LatCrit challenge the traditional views of education and pushes the envelope to promote a furthered discourse regarding ethnic students and the U.S. education system.

Like other social institutions, education is composed of unique practices, traditions, norms and languages (Figueroa 2007). Recent research argues that resources are highly important in affecting student achievement. Arrellano (2003) suggests that related policies should be aimed at improving the material resources available to students and the settings in which they live, thus affecting the family, school and community structures. The attempt to eliminate the achievement gap and bring equality to an underrepresented population is the key necessary to create a competitive edge for a group that
contributes immensely to the U.S. economy and hopes to succeed equally with the rest of the United States in achieving the American Dream.

American Dream
Educational attainment is fundamental in accomplishing the American Dream. In the previous section, background data on Mexican immigrants and education theories regarding this group were provided to show the disadvantages this population faces in the U.S. education system. Mexican immigrants came to the United States for the purpose of achieving better lives; therefore, it is important to view how this population perceives the American Dream in order to best understand their response towards the current economic recession. The premise behind the American Dream has always been closely connected to the notion of access to economic opportunity (Starks 2003). Research during the 1970s and 1980s found that socio-demographic characteristics such as race, education, gender, occupational class, and income are associated with beliefs about opportunity and inequality (Smith 2008). The achievement of the American Dream is meaningful to the Mexican immigrant not only because of the long history of immigration to California but because of the social and cultural indicators that are displayed within this population in terms of their pursuit of upward mobility.

Mexicans mostly represent a group of low-wage earners who seek the opportunity to improve their lives economically and socially. The act of pursuing the American Dream for Mexican immigrants embodies going well beyond the living status of their parental generation (Alba 2006). Castaneda, an expert in global politics and Latin American Studies, describes the Mexican American Dream: “The real Mexican dream is that people leave for the United States, find a well-paying job, improve their income level slightly over time, eventually obtain papers, bring their family or create a family, and build a family in the United States” (2009). However, the lack of legal documents, the inequality in economic and educational opportunities, lack of political clout, and no historical access to inherited wealth or assets plays an obvious role in the shaping the outcome of this population’s search for the American Dream (Kahn 2002). The negation of the American Dream typically results from the aforementioned conditions; now adding a newer and deepening economic recession, this population now faces a starker future.

Maneuvering through the barriers has always been part of the Mexican immigrant experience in the United States, but the current recession and the loss of homes due to foreclosures and unemployment is further intensifying this experience. Presently, the American Dream seems to be fading with the record loss of capital (Kahn 2002). The acquisition of a home and
real property ranks as the highest goals in regards to the American Dream. Furthermore, the home for the Mexican immigrant represented an entire life’s effort, savings, and investment. In the Mexican community, having a home is considered a sign of “having made it,” hence the fulfillment of the American Dream. The resulting losses from the housing debacle will have lasting effects in this community, which now has to cope not only with the pre-existing barriers but with these new economic conditions that threaten their livelihood. The Mexican population has displayed immense willingness to work and persevere in their desire to remain a part of the American Dream. A great number of immigrants come to the United States in pursuit of the American Dream, but the outcome of this dream will most likely be influenced by the labor market. As previously stated, education is the key component for economic stability; therefore, the level of education achieved will have the greatest influence in the success of the Mexican immigrants.

The literature has provided a framework of themes directly related to the Mexican immigrant experience in the United States. In analyzing the response of this population towards the current recession, it is crucial to take into consideration the historical background this population has in the United States, specifically in the areas of labor market demographics, their perception on the American Dream, and their educational attainment. All of these components are not only what makes this population so unique, but also are what will influence and shape their response towards the recession.

**METHODOLOGY**

This study uses qualitative analysis to review how Mexican immigrants in California are responding to the current economic recession. To capture the Mexican immigrant experience, this study is complemented by interviews of four Mexican immigrants. Because California is home to both undocumented and documented immigrants, the researcher purposely selected two participants with legal residential status and two without. The purpose of the division is to analyze if the legal status of the immigrants influenced their responses towards the economic recession.

**Participants**

The present study used the technique of snowball sampling, where the subjects for the study are recruited through known acquaintances. This technique was used to facilitate contact and establish a trusting relationship with the participants of this study.

To recruit participants for this research, a recruitment flyer was sent via e-mail to the researcher’s contacts in the community, as well as to classmates,
members of church, neighbors, and friends. After receiving e-mails and phone calls regarding interested and possible participants, the researcher contacted the potential participants to answer any questions and confirm eligibility. The participants were selected based on the following eligibility criteria:

1. They had to be of Mexican origin, and currently living in California.
2. They had to label themselves as belonging to the uneducated working class.
3. They needed to state that they were experiencing the effects of the current economic crisis, which includes but is not limited to possible job loss, uncertain housing, or other changes in their living conditions.

To verify eligibility, the researcher contacted the interested participants by telephone to inform them about the purpose of the study and the reason for the criteria. The researcher interviewed the immigrants to see if they met the stated criteria for research. After the initial interview, times and locations were set and scheduled for a meeting that would be most convenient to the research subject for the full interview process.

The participants signed a consent form agreeing to be interviewed and audio recorded. The researcher e-mailed or mailed the consent forms to the participants for their review and signature a week before the interview. These forms were ready by the time of the interview. Because the population is Spanish speaking, it was each participant’s choice about whether to read and sign the consent form in either Spanish or English.

Table 1 show the details about each participant in the study.

<table>
<thead>
<tr>
<th>Case Study</th>
<th>Year Immigrated</th>
<th>No. of Family Dependents</th>
<th>County in California</th>
<th>Place from Mexico</th>
<th>Legal Status</th>
</tr>
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<tbody>
<tr>
<td>Pedro</td>
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<td>San Joaquin</td>
<td>Michoacán</td>
<td>Undocumented</td>
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<tr>
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<td>1984</td>
<td>5</td>
<td>Stanislaus</td>
<td>Nayarit</td>
<td>Documented</td>
</tr>
<tr>
<td>Isidro</td>
<td>1974</td>
<td>4</td>
<td>Yolo</td>
<td>Michoacán</td>
<td>Documented</td>
</tr>
</tbody>
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Table 1. Details about study participants.

Interviews
Using a qualitative analysis, the participants were interviewed using a case study approach. The questions varied from closed- to open-ended because incorporating both types of questions enriched the opportunity to fully capture detailed information during the interviews. The questions were sorted into main themes such as the economic recession, immigration, education, labor experience, and perceptions on the future of California. The four interviews took place in the participants’ homes. Interviews were
conducted individually in Spanish. All the interviews were digitally recorded and transcribed to English. Each interview lasted approximately one hour. The researcher took written notes on non-verbal responses that developed during the interviews because relying only on verbal responses can limit the story being told. The notes were important because they complemented the interviews by capturing a complete image of the narratives. For example, some of the participants had some tears, silence, different facial expressions, or special attitudes during the interviews. The researcher used pseudonyms to keep the participants’ names confidential. All information related to the interviews was kept confidential and securely stored.

**ANALYSIS**

In order for the researcher to reach concrete conclusions from the interviews, all of the transcribed responses were carefully reviewed and coded. To maintain privacy every participant was given a random pseudonym by the researcher that was used throughout the study.

The researcher used open coding to identify the major themes that came out of the interviews, including the recession outlook and limited opportunities available to immigrants. Activity codes were used to analyze the responses of the participants. *Process codes* are “words and phrases that facilitate categorizing sequences of events, changes over time, or passages from one type or kind of status to another” (Bogdan and Biklen 1998). *Activity codes* are codes that identify constant kinds of behavior (Bogden and Biklen 1998). Using process and activity codes allowed the researcher to analyze the responses from different perspectives.

Table 2 outlines the themes, process codes, and activity codes used to analyze the case studies.

<table>
<thead>
<tr>
<th>Themes</th>
<th>Process Codes</th>
<th>Activity Codes</th>
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<tr>
<td>Recession Outlook</td>
<td>Attitude, Work Ethic</td>
<td>Self Awareness, Citizenship Status</td>
</tr>
<tr>
<td>Opportunities</td>
<td>Disadvantages in Education</td>
<td>Career Aspirations</td>
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*Table 2. Themes, process codes, and activity codes.*

The participants’ responses were highly important because, in them, the Mexican immigrants revealed more than just answers to questions, they revealed critical parts of their lives as immigrants, personal insight and the experience of being a immigrants during the recession: a view point from ground zero, so to speak.
During the interviews, the four participants were enthusiastic about sharing their thoughts and responses in regards to the current economic crisis in California. The narratives provided personal insight on the life experiences of these Mexican immigrants. The interviews allowed the participants to share their own insights as to how they see their role benefiting California in conjunction with their personal futures. Two of the participants were undocumented and the other two were documented, which provided different perspectives. According to the coding, two themes were identified: the recession outlook and the opportunities immigrants have in the labor market and for education.

Recession Outlook
The narratives right away revealed the attitude that the interviewees had towards the recession. Pedro came from Michoacán, Mexico in 2003. In the years that Pedro has been in California he has worked in the fields, but more often in the construction industry. He is unemployed for the first time since his arrival in the U.S. He never imagined that this country would go through such a crisis. As a result of the recession, Pedro has made radical changes in his lifestyle. The biggest changes for him were that he had to sell his car and reduce the amount of money he sends to his parents in Mexico. Even though Pedro is going through rough times, the following passage demonstrates the positive outlook he has towards the recession:

There are many folks like me living in California, and like me, we don’t just want the economy like it is, we are eager to be part of the recovery for a better economy (2009).

Like Pedro, many Mexican immigrants see themselves as part of this state. Many are going through losses in this community, whether jobs, homes, or savings. Along with the high number of housing foreclosures, the Mexican immigrant has also experienced a tremendous loss of wealth. Some have spent their entire life’s fortunes and effort on acquiring a piece of the American Dream that has now vanished. Interviewee Isidro came to the U.S. in 1974 from Michoacán, Mexico. He currently lives in Yolo County with his wife and three children. Isidro offers a more detailed response about his experience of the recession and his attitude:
My house meant more to me than just a thing that was owned, it was a home. It took me 30 plus years to get to this dream. With the loss of my home went many years of hard work and thousands of dollars that will never come back to me. My future plans are to live in a trailer that I own and I will stay here to work (2009).

The interviewees were lucid in the responses they gave. They seemed very willing to open up and share what they felt about the pressing economic crisis, their hopes, opinions, and solutions. Rarely do Mexican immigrants have the opportunity to feel so empowered with the position they hold regarding the state’s economy. Isidro has been in the U.S. for a longer period than Pedro. Therefore, Isidro has invested more years of hard work to accomplish his American Dream of having a house. Pedro’s original American Dream was to come to California to work and help his parents financially. The young age of Pedro and his short trajectory in the U.S. shows that he is discovering where he is headed with his life. However, both Pedro and Isidro desire to be part of the recession recovery through being part of the labor force.

Because Isidro has been part of the labor force in California for the longest period of time of all the participants, he shares his experience in the labor market in California. He started with a strong voice as he remembered his experiences in the fields, and made frequent pauses and showed facial expressions that suggested he has had a challenging journey in his jobs. Isidro shares his experience in the work force:

I have learned about jobs mainly through my cousins, friends and by talking to people in the farms. I adjust fast into jobs. I have always made minimum-wage salaries or below, and of course no benefits. In the places where I worked many of my co-workers were undocumented. It broke my heart when immigration officers came to the fields and aggressively took farm workers. Even though I had my green card; it reminded me that once I was in their shoes. Working in the fields has been the hardest job I had, mainly because of the injustices bosses made with Mexicans. (2009).

Isidro’s experience represents the story of thousands of Mexican immigrants who have to put up with injustices in their work. In the previous passage Isidro reveals that he has obtained his jobs through his network and that he has always worked in low wage jobs. This suggests that he is among a network of people where educational aspirations are not considered. The opportunity in education and labor is the other theme that was identified through the findings.
Opportunities
Another participant, Petra, is a native of Jalisco, Mexico. Along with her two sons and husband she came to the United States in 2003 to have a better opportunity to improve their economic stability. Petra shared the following regarding her experience of seeking opportunity and working in California:

When I initially came to California, my sister who already was here was able to accommodate me in the cannery where she worked. After two years of working there I accidentally injured my hand while working. The cannery knew that I was undocumented, so they did everything they could to get rid of me. For me, my greatest boundaries that I have in jobs are that I do not know English and my legal status (2009).

Based on Petra’s response, one can deduce that Mexican immigrants, like many other populations, obtain their jobs through the people they know. The disadvantage of Mexican immigrants is that their educational attainment is so low that their network continues to be made up of people who work in the lowest paid jobs, with no benefits and the worst conditions. Furthermore, Petra has the barriers of her legal status and her lack of English language skills. Not knowing the language is a huge obstacle because that means that often times she is not able to speak for herself and is not able to knock on doors for new opportunities to accomplish her American Dream, which is to have economic prosperity.

Pedro talks about his career aspiration as a Mexican immigrant:

It is important to have an education for those who will use it in their jobs, but for him is has not been an issue not having an education because the jobs that he seeks do not require a university title (2009).

In addition to Pedro’s perception of education, Maria adds insight about why education is not part of this population’s experience:

I started from the bottom with nothing. I have worked in fields, canneries, in cleaning jobs, in restaurants, and in low wage jobs. I feel that I have a potential to work in better job positions, but the biggest barrier for me is the same one that many of the Mexican people have…the lack of higher education. But with or without education what keeps me going is “las ganas de trabajar” [willingness to work] (2009).
The insistence on working is a common character trait in this population. Even through the darkness of the current recession, the Mexican population still holds onto the beacon of hope for a better life. This beacon is their willingness to work and work together, which is their only way of making it out of the dark. The only way of coming out of the recession, as Maria puts it, is to get together and help each other out:

This recession is giving many people hardships, but more than obstacles I see this recession as an opportunity for the state to grow. It is a sign for all of us who live in California to become united and help each other (2009).

Isidro offered the following insight in regards of the future of California. “California is the gold state: it has land waiting to be farmed and it has people like me waiting to work.” Furthermore, this willingness to overcome needs to be paid attention to. The Mexican population in California is set to go back to work. It is ready for an amnesty, ready for acceptance, ready to prosper once again alongside the rest of the citizenry. They no longer want to feel like a burden but rather an asset necessary for recovery. Petra indicates that:

Everyone needs to understand that undocumented Mexicans are hard-working people. As an undocumented worker I can’t really get benefits much less be a burden to the state (2009).

The participants’ legal status has an impact on their experiences in the U.S. The respondents who have a U.S. government-issued ID have fewer barriers in obtaining employment, whereas the undocumented respondents have a complicated experience in the process of job searching and while working. Furthermore, the respondents who do not have documents see their disadvantage in the economic recession because they cannot obtain benefits. Mexicans are surviving the current recession because this population remains hopeful in the economic recovery of the nation; all the while they continue working in low wage jobs that are more readily available, hence keeping the economic integrity of the state of California intact as others lose hope.

**Conclusion**

This study explored how Mexican immigrants are responding to the current economic recession in California. Looking at Mexican immigrants’ demographics, labor market participation, educational attainment, and their pursuit of the American Dream are important considerations when exploring
scholarship about this group because Mexican immigrants have a long history in California.

This study was complemented by four case study interviews that were conducted using a qualitative analysis to deduce the findings. The narratives provided personal insight on the life experiences of Mexican immigrants in California and their attitudes towards the current recession. Historically, in times of crisis it has been a common practice by the powers-that-be in California to put the issues of the Mexican immigrant aside, and to attach negative stigma and place blame for the state's financial woes on this group. This practice only diverts attention away from possible solutions. As evidenced by previous researchers and the results of this study, the Mexican population is evermore present today and will continue to be so in the future. Previous findings and interviews show that this population is large and has a strong work ethic. The Mexican immigrants see themselves as a population that will bring prosperity to the state. However, it is important to be aware that it is not just economic growth that produces prosperity; it is also key policy changes that can affect this population in a positive light that play an important role.

The key policy areas that can improve the well-being of the Mexican immigrant population in California are tied to education because it is well-known that higher education is a crucial factor in bridging the achievement gap as well as stirring positive economic development. Current educational policies need to be redeveloped and improved in order to ensure that this population gets an opportunity to bridge the achievement gap within the structure of the U.S. education system.

The future can, in turn, yield a higher payoff in terms of wealth for the state. Following are some policy considerations from a student perspective on the areas of education and immigration reformation:

- Meeting the needs and investing in the restructuring of the education system for the early years at the K-12 level
- Laying down a solid foundation to prepare students for higher education can be achieved through well-developed outreach programs that focus their efforts in low income communities and high schools districts highly representative of this demographic area
- Developing early outreach is imperative to align Mexican immigrant youths with the notion of success through education
- Creating an amnesty program for the high numbers of undocumented immigrants working and living in the state
This study opens other possible areas that can be explored further, including policies regarding education, labor and immigration. The case study interview approach made the analysis of the participants’ responses more detailed and complex in the present study. However, this study can be improved in the future by increasing the number of participants. California is the home of more than 11 million Mexican immigrants and this population can no longer be ignored at the macro-level. If the state of California manages to develop policies aimed to stir positive economic and academic growth in the Mexican community, the returns in the near future could be great and will work for the benefit of stabilizing the vitality of the Golden State.
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