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Complementary and Alternative Medicine use among Latino college Students

Andrea Pineda

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COMPLEMENTARY AND ALTERNATIVE MEDICINE USE AMONG LATINO
COLLEGE STUDENTS

A Thesis
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Public Health

by
Andrea Trinidad Pineda-Gutierrez

June 2020

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ABSTRACT

Objective: The objective of this study is to understand the need of CAM methods among college students.

Methods: The method used for this study was a secondary analysis of an anonymous cross-sectional survey. Students were asked different questions about their CAM uses and the reason behind them.

Results: 96.9% of students stated that they have use a form of CAM before. This shows how prevalent CAM is among college students. 47.5% of students rated their health average to below poor. It indicated how important it is to understand college students' health and help them feel above average.

Conclusion: CAM uses are very common among college students, especially among those with Latino heritage. CAM uses show to help people improve their overall health, and cope with stress, among many other benefits.

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CHAPTER ONE

INTRODUCTION

Problem Statement

There were a record 44.4 million immigrants living in the U.S. in 2017, making up 13.6% of the nation's population (Jynnah Radford, 2019). A major portion of the current immigrant population in the U.S. consists of the Latino population (Burrows, 2019). The current Latino population is at 56.6 million, which shows an increase of over 12 million in the past 2 years. Latino people are the largest minority in the U.S. (*Hispanics in the US Fast Facts - CNN, 2019*). Major growth in the Latino population has been among young adults. For example, in 2014, 35% of Latinos ages 18 to 24 years were enrolled in a two- or four-year college, up from 22% in 1993 – a 13-percentage-point increase. (*Hispanic/Latino - The Office of Minority Health, 2019; Jynnah Radford, 2019*). Latinos are becoming more educated and are a growing population in campus communities. Given the continued growth of the Latino population, especially young adults, understanding health outcomes and associated factors are critical.

Current empirical evidence shows that health outcomes in the Latino population are often shaped by a plethora of factors, including, but not limited to, language, culture, access to preventive care, insurance, among others. (*Hispanic/Latino - The Office of Minority Health, 2019*). It is very important to understand all these factors and what can be done to provide Latinos with better

health care. For instance, the health of the Latino population is impacted by diseases such as alcohol liver disease, HIV/AIDS, obesity, and mental health, diabetes more than any other ethnic group in the U.S (Shellypollard, 2018). Often times, health disparities among the Latino population are heightened due to the lack of access to healthcare and insurance. This is especially true among Latino immigrants.

People without health insurance are more than four times as likely as others are to delay or defer obtaining needed medical care because of cost (Anderson et al., 2012). The lack of insurance prevents many people from getting the necessary medical care because they cannot afford the out of pocket expense of the medical services. Historically, people in their early twenties generally had the lowest rate of insurance coverage of any age group (Sommers, 2013). Young adults do not only have a hard time finding affordable care but often times have difficulty finding a primary doctor. The transition into adulthood often means a change in primary care physicians and the independence to make decisions by themselves. Achieving this independence requires an organized transition process to gain independent health care skills, prepare for an adult model of care, and transfer to a new provider (GotTransition.org, 2019). The transition can also be stressful and intimidating, therefore, some young adults do not find a primary care provider until absolutely necessary. Some health problems that college students encounter are sexually transmitted disease, dermatologic conditions, musculoskeletal problems, and minor trauma, seizure disorders,

migraine headaches, bronchial asthma, and other atopic disorders, type I insulin dependent diabetes, arthritis, inflammatory bowel disease, and peptic ulcer disease (Patrick et al., 1992). Although young adults can be seen as one of the healthiest age groups there is still a lot of health problems that they can encounter, that is why is very important to help college students find adequate health care utilization and access, and there is also a need to address whether alternative methods are more prevalent in the population.

Complementary and alternative medicine (CAM) refers to health care approaches that are not typically part of conventional Western medical care or that may have origins outside of usual Western practice (*Complementary, Alternative, or Integrative Health*, 2011). Some of these approaches include traditional alternative medicine, natural products, as well as mind and body practices. Traditional alternative medicine may include acupuncture, Ayurveda, homeopathy, naturopathy, Chinese or Oriental medicine. Examples of body therapies include massage, yoga, tai chi, and Chiropractic and osteopathic medicine. Some mind practices include meditation, biofeedback, and hypnosis. (*Types of Complementary and Alternative Medicine*, n.d.) Although people use the term as one or interchangeably, complementary and alternative refer to two different concepts. If a non-mainstream practice is used together with conventional medicine, it's considered "complementary." If a non-mainstream practice is used in place of conventional medicine, it's considered "alternative (*Complementary, Alternative, or Integrative Health*,

2011).

In recent years, CAM approaches are becoming more prevalent in the U.S. The National Health Interview Survey showed a general nationwide increase in CAM use, from 36.0% in 2002 to 38.3% in 2007 (*The Use of Complementary and Alternative Medicine in the United States*, 2017). “Analyses of these nationwide surveys indicate that health care access delayed because of cost is closely associated with the rise in CAM use and that patients who lack access to health care are more likely to use CAM than those who do have access to health care” (Ho & Nguyen, 2015). As previously stated many college students lack access to health care and therefore have shown interest in CAM use in order to better their health.

Healing philosophy and alternate health beliefs shared by the Latino population is attributed to a fusion of cultures. For many Latinos, “CAM practices are both a part of their cultural roots and an integral part of their lives” (Blanca Ortiz, Kelly Shields, 2007). Because of these beliefs Latino young adults continue their cultural beliefs and traditions and use at least one type of alternative medicine. Previous studies have shown that 51.90% of college students are willing to use CAM for their current medical condition (Nguyen et al., 2016). Although there is research done on CAM use among college students, and CAM use among different ethnicities, not a lot of studies have focused on CAM use among Latino college students.

Purpose of Study

The purpose of the study is to evaluate the prevalence of complementary and alternative medicine use among college students, with emphasis on Latino students.

Research Questions

1. What is the prevalence of CAM use among primarily Latino college students?
2. What are the types of CAM use among the target population?
3. What is the source of CAM knowledge among such target population?

Significance to Public Health

This thesis provides insight on CAM use among college students. It helps evaluate how common and important the use of complementary and alternative medicine has become in recent years. As well, showing the relevance of the different types of alternative medicine among the population. Assists to see how CAM can be incorporated in order to aid in the treatment of certain diseases. CAM can be used as a public health resource to increase the population's preventive care.

The following competencies will be met in the present thesis: Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software, as appropriate. Results of quantitative data analysis

using SPSS software will be interpreted to address the use of complementary and alternative medicine among college students. Evaluate interdisciplinary health behavior theories to promote health equity among the vulnerable populations. During this thesis, health behavior theories will be analyzed in order to see how CAM can help promote health equity among Latino college students.

CHAPTER TWO

LITERATURE REVIEW

Complementary and Alternative Medicine

Complementary and alternative medicine (CAM) refers to health care approaches that are not typically part of conventional Western medical care (*Complementary, Alternative, or Integrative Health*, 2011). CAM approaches are becoming more prevalent in the U.S. nationwide surveys indicate that health care access delayed because of cost is closely associated with the rise in CAM use and that patients who lack access to health care are more likely to use CAM than those who do have access to health care. (Ho & Nguyen, 2015). For many Latinos, CAM practices are both a part of their cultural roots and an integral part of their lives (Blanca Ortiz, Kelly Shields, 2007). Previous studies have shown that 51.90% of college students are willing to use CAM for their current medical condition (Nguyen et al., 2016).

Latino Population

Currently, the United States is 60.4% white. While whites will remain the single largest racial group in the US, they will no longer be the majority. By 2055, the breakdown is estimated to be 48% White, 24% Hispanic/Latino, 14% Asian, and 13% Black. (*United States Population 2020 (Demographics, Maps, Graphs)*, 2020) In 1980, with a population of 14.8 million, Latinos made up just 6.5% of the total U.S. population. (NW et al., 2017). Based on these statistical projections

the Latino population percentage would increase almost 20% in 75 years. Studies show education is becoming a priority among Latinos. In 2013, Forty-nine percent of Latino high school graduates immediately enrolled in college for the fall semester. Surveys have also shown that students feel “that in order to get ahead in life these days, it’s important to get a college education” (*Surprising Stats About Latino Students*, 2014). Some of the factors that determine the success of Latinos in the United States are; the length of time in the U.S., educational attainment, income and language ability. These factors influence Latinos more so than does ethnicity and language use alone. Nevertheless, “despite strong indicators of progress in economic and educational issues, Hispanics still lag behind the other major racial and ethnic groups in many key areas” (Hernández-Nieto & Gutiérrez, 2017). Latinos are less likely than other racial and ethnic groups to have health insurance. This is an especially pronounced problem among immigrants, because they are less likely to be eligible for public insurance (Vega et al., 2009). According to different surveys Latinos spend more on groceries and clothing but spend less in health care and personal insurance (Weeks, 2017). Despite the growth of the Latino population, it still faces a lot of health disparities.

Latino Population's Health Issues

Health Disparities

The World Health Organization defines disparities as: “differences in health which are not only unnecessary and avoidable but, in addition, are considered unfair and unjust” (Whitehead, 1992) The term *disparities* is often interpreted to mean racial or ethnic disparities. If a health outcome is seen to a greater or lesser extent between populations, there is disparity (Mayer et al., 2008).

For Hispanics in the United States, health disparities can mean “decreased quality of life, loss of economic opportunities, and perceptions of injustice” (*Health Disparities Experienced by Hispanics --- United States*, n.d.). Given Latinos' low rates of health insurance, there needs to be more policies that address the needs of uninsured Latinos (Vega et al., 2009). Many researchers and healthcare professionals agree that “the key to decreasing health disparities is to improve the quality of and access to healthcare, particularly for older patients” (Rogers, 2010). In order to help Latinos increase awareness and early disease detection there needs to be more educational programs that will allow them to better their health (Vega et al., 2009).

Chronic Diseases

Heart disease and cancer in Latinos are the two leading causes of death, accounting for about 2 out of every 5 deaths, which is about the same for whites.

Latino have more deaths from diabetes and chronic liver disease than whites (CDC, 2015). About ten percent of Hispanic and Latino Americans are diagnosed with diabetes. Latinos also are more likely to have undiagnosed diabetes than non-Hispanic whites and non-Latin blacks (*Diabetes - Are Hispanics at Greater Risk?*, n.d.). In 2017, Hispanics were 1.4 times more likely than non-Hispanic whites to die from diabetes (*Diabetes and Hispanic Americans - The Office of Minority Health*, 2019). People with multiple chronic conditions are more likely to have to deal with health care burdens because of the difficulty of coordinating disease management for different disease. Some studies show that people with chronic conditions often use complementary and alternative medicine (CAM) therapies as part of disease management (Falci, 2016). “The use of Latino traditional medicine may be crucial to the adjustment of Latino immigrants to life in the U.S.”. Other low-income populations may also turn to CAM therapies when it becomes too difficult and expensive to access conventional medical care (Ransford et al., 2010).

Complementary and Alternative Medicine

“Complementary and alternative medicine (CAM) is the term for medical products and practices that are not part of standard medical care. Standard medical care is medicine that is practiced by health professionals who hold an M.D. (medical doctor) or D.O. (doctor of osteopathy) degree. Complementary medicine is treatments that are used along with standard medical treatments whereas alternative medicine is treatments that are used instead of standard

medical treatments” (*Complementary and Alternative Medicine (CAM)*, 2019). Examples of CAM include: Traditional alternative medicine, healing by touch, diets and herbs, external energy, therapies using the mind, and therapies incorporating the sense (*Types of Complementary and Alternative Medicine*, n.d.). Type of Complementary and Alternative medicine are also divided between provider based and Alternative medicine and non-provider based. Provider-based CAM types, includes acupuncture, ayurveda, biofeedback, chelation, chiropractic, energy healing therapies, folk medicine, homeopathy, hypnosis, massage, and naturopathy. Non-provider-based CAM types includes deep breathing, guided imagery, meditation, relaxation, types of herbs, and types of vitamins (Ayers & Kronenfeld, 2012).

Latino cultures have had alternative health beliefs and healing practices as part of their traditions for centuries. These practices fall under the rubric of complementary alternative medicine (CAM). Alternative health belief practices are viewed as affordable and are highly revered components of culture. (Ransford et al., 2010)

Research has shown that patients with chronic conditions such as cancer, arthritis, asthma, hypertension, and diabetes are more likely to use CAM than the general public (Egede et al., 2002). Other studies have shown that patients who did not get or delayed getting needed medical care due to cost in the 12 months prior to the survey (2007) were also more likely than other adults to use CAM (Su & Li, 2011).

Some studies indicate that when conventional medical care is inaccessible both provider-based and non-provider-based CAM therapies are more likely to be used. Some CAM therapies have flexible hours and tend to operate outside of normal business hours and on weekends, which permits for individuals to utilize CAM therapies as their schedule permits (Ayers & Kronenfeld, 2012).

Cumulatively, the literature highlights that various modes of CAM, uses of CAM, as well as the populations that have used it; often as a supplement to Western medicine. Understanding how young adults, especially of minority status, is also of importance, though such literature is lacking.

CHAPTER THREE

METHODS

Study Design

This study was a secondary analysis of an anonymous cross-sectional survey collected in the academic year 2018-2019. Cross-sectional studies provide prevalence data in order to assess existence of behavioral and health outcomes (“Chapter 2: Research Strategies and Design,” 1992). This study utilized the survey to analyze prevalence of CAM use among college students and the reasons for such use.

Data Source and Collection

The original data was collected from a variety of general education courses at a medium-sized four-year public university. All students aged 18 years or above in such courses were given an opportunity to earn extra credit by completing the anonymous survey (names were not linked to survey). No exclusion criteria beyond age was implemented. All data were collected in hard copy. All data were entered in excel and transferred to SPSS. Hard copies were shredded to ensure protection of participants. Consent form was given to all participants and only those providing consent filled out the survey. Alternate extra credits were given to those not consenting for the study.

Measures

The variables in this study were related to CAM. The following questions were utilized in this study. Have you ever seen a traditional healer? Select all that apply? In which participants had to selected all that applied from the following; Shaman, Sobador, Curandero/Cura Yerbero, Native American Healer/Medicine Man or other. Of the therapies you believe are effective, how did you discover it? In which participants had to select one of the following; It was part of my upbringing, family, or culture, recommended by a medical professional, recommended by a trusted individual, found it myself or None of these apply. Which of the following reasons did you choose an alternative medicine? In which participants could select one or more from the following; General Wellness or general disease prevention, General Wellness or general disease prevention, to improve energy, to improve your immune function, to improve athletic or sports performance, to improve memory or concentration, to eat healthier, to eat more organic foods, to cut back or stop drinking alcohol, to cut back or stop smoking cigarettes, to exercise more regularly, to give you a sense of control over health, to reduce stress level or to relax, to help sleep better, to make you feel better emotionally , to make it easier to cope with health problems, to Improve overall health and make you feel better, to improve relationships with others, to improve attendance to a job or school, for a specific disease, condition, ailment and none of the above.

Data Analysis

All statistical analyses were done using SPSS software version 24. Descriptive analysis was used in order to obtain the frequencies of each of the variables of interest, followed by cross-tabulation. Chi Square showed no association with demographic characteristics.

Ethics

The original survey was approved by the institutional review board. The IRB approval number is IRB-FY2018-136.

CHAPTER FOUR

RESULTS

Study Characteristics

Demographics	Percent
Age	
18-20 years	17.6%
21-23 years	44.3%
24 or more years	38.0%
Race/Ethnicity	
Hispanic/Latino	73.3%
Non-Hispanic/Latino	26.7%
Self-rated general physical health status	
Excellent/good	52.8%
Average to very poor	47.2%
Self-rated general mental health status	
Excellent/good	52.5%
Average to very poor	47.5%
Ever used CAM	
Yes	96.9%
No	3.1%
Ever used traditional healer	
Yes	84.1%
No	15.9%

BMI (kg/m2)	
Overweight or obese	54.2%
Not overweight or obese	45.8%

All respondents were female college students 18 years or older. The biggest age group was between 21-23 years of age, which accounted for 44.3% of the population. The population was mostly Latina students with 73.3 % and the other 26.7 % being of different ethnicities. 52.5 % of respondents self-rated their mental health to be good or excellent. Out of the 584 female students that answered the survey, 96.9 % (566) reported that they had used CAM. 84.1% reported to have used a traditional healer.

Table 2. Prevalence of use of healers.	
	Percent
Shaman	2.4%
Sobador, Curandero/Cura, Yerbero	37.3%
Native American Healer/Medicine Man	9.9%
Other	39.2%

The highest prevalence of type of CAM reported in our study population was Other (39.2%), followed by Sobador, Curandero/Cura, Yerbero (37.3%), and the least used healer was a shaman at 2.4%.

Table 3. Source of information for CAM	
	Percent
It was part of my upbringing, family, or culture	48.1%
Recommended by a medical professional	12.5%
Recommended by a trusted individual	27.4%
Found it myself	17%
None of these apply	20.2%

The main source of information about CAM was because it was part of upbringing, family or culture (48.1%), followed by recommendation by a trusted individual (27.4%). 20.2 % stated that none of the options applied as to how they obtained their information for CAM.

Table 4. Reasons cited for choosing to use CAM	
	Percent
Overall health	61.50%
To reduce stress level or to relax	50.90%
To help sleep better	42.10%
To improve energy	37.20%
To make you feel better emotionally	30.50%
Disease management	28.80%
Diet	26.70%
Exercise	19.30%
To improve memory or concentration	13.90%
To improve relationships with others	12.70%
To improve attendance to a job or school	6%
Reduce or stop alcohol or tobacco use	3.30%

Overall there were several reasons why students choose CAM, the most prevailing reason to improve overall health (61.5 %), followed by to reduce stress or to relax (42.10%). 26.70% use CAM to improve their diet and 19.30% use it as a form of exercise. Almost one third of respondents choose CAM to feel better emotionally (30.50%). Less students seem to choose CAM to help them reduce or stop alcohol or tobacco use with only 3.30%.

CHAPTER FIVE

DISCUSSION

All respondents were female college students 18 years or older. The biggest age group was between 21-23 years of age, which accounted for 44.3% of the population. The population was mostly Latina students with 73.3 % and the other 26.7 % being of different ethnicities. The study population showed to be mostly Latino. The demographics exhibited a correlation with the overall statistics of California State University San Bernardino(CSUSB). CSUSB is a predominantly Latino campus, 63% of the student body is Latino (*Facts and Stats / CSUSB*, n.d.).

52.5 % of respondents self-rated their mental health to be good or excellent. Although a little over half of the respondents rated their mental health as good or excellent, 47.5% still a very high number to show below-average mental health. This shows how mental health is a growing concern among college students. According to mental health guide for college students, college students feel overwhelmed by their responsibilities as a student. 50 % of students rated their mental health below average or poor which correlates with the results obtained from the survey conducted in this study (*Mental Health Guide - CollegeStats.Org* -, 2020). This also shows how more research needs to be done in order to understand mental health among college students.

Out of the 584 female students that answered the survey, 96.9 % (566) reported that they had used CAM. 84.1% reported having used a traditional

healer. The highest prevalence of the type of CAM reported in our study population was Other (39.2%), followed by Sobador, Curandero/Cura, Yerbero (37.3%), and the least used healer was a shaman at 2.4%. Almost all respondents stated that they have used a form of CAM. This shows how important CAM has become and how people still utilize it in different forms and for different reasons.

The main source of information about CAM was because of it was part of upbringing, family or culture (48.1%), followed by a recommendation by a trusted individual (27.4%). 20.2 % stated that none of the options applied as to how they obtained their information for CAM. CAM knowledge was shown to mostly come from upbringing. CAM has shown to be part of certain cultural traditions which means it usually passed between generations. For many Hispanics, CAM practices are both a part of their cultural roots and an integral part of their lives (Blanca Ortiz, Kelly Shields, 2007).

20.2% shows that people are willing to go out of their way and learn about CAM uses on their own. This demonstrates that more research needs to be done to understand how college students learn about CAM and how they find it beneficial. Overall there were several reasons why students choose CAM, the most prevailing reason to improve overall health (61.5 %), followed by to reduce stress or to relax (42.10%). Most people use CAM to improve their overall health. CAM has a very range of treatments in which people use in order to improve their overall health.

Stress is the number one use of CAM after overall health which shows how important mental health is for most individual. Reduction of stress helps with mental well-being. Stress is commonly experienced by college students and can negatively affect their overall health and wellness through a number of ways (Baghurst & Kelley, 2014). Stress is very common among college students therefore is very important to understand how to help students out and what type of CAM uses can help reduce their stress.

26.70% use CAM to improve their diet and 19.30% use it as a form of exercise. Almost one-third of respondents choose CAM to feel better emotionally (30.50%). Fewer students seem to choose CAM to help them reduce or stop alcohol or tobacco use with only 3.30%. Many students use CAM in order to better their diet and to use it as an exercise. CAM offers a range of alternatives such as dietary supplements and herbal medicine. Many dietary and herbal approaches attempt to balance the body's nutritional well-being (Types of Complementary and Alternative Medicine, n.d.)

Conclusion

This study shows how important CAM uses have become among college students. It emphasizes how Latino population still uses many traditional practices to obtain a whole person treatment when dealing with different issues. College students are at high risk of mental health and CAM has shown to help them cope with different aspects that will allow them to better their mental health.

More research needs to be done to emphasize the issues college students deal with in a day to day basis and how CAM can be introduced to everyone as complementary and alternative to better their overall health.

APPENDIX A

IRB FORM

7/21/20, 10:40 AM

IRB-FY2018-136 - Initial: IRB Admin./Exempt Review Approval Letter

mgillesp@csusb.edu <mgillesp@csusb.edu>

Wed 7/18/2018 7:56 AM

To: Christina Hassija <CHassija@csusb.edu>; Monideepa Becerra <mbecerra@csusb.edu>



July 17, 2018

CSUSB INSTITUTIONAL REVIEW BOARD

Administrative/Exempt Review Determination

Status: Determined Exempt

FY2018-136

Prof. Monideepa Becerra and Prof. Christina Hassija

Department of Health Science and Human Ecology
and Department of Psychology
California State University, San Bernardino
5500 University Parkway
San Bernardino, California 92407

Dear Prof. Becerra and Prof. Hassija:

Your application to use human subjects, titled "Student health survey-baseline data collection" has been reviewed and approved by the Chair of the Institutional Review Board (IRB) of California State University, San Bernardino has determined that your application meets the requirements for exemption from IRB review Federal requirements under 45 CFR 46. As the researcher under the exempt category you do not have to follow the requirements under 45 CFR 46 which requires annual renewal and documentation of written informed consent which are not required for the exempt category. However, exempt status still requires you to attain consent from participants before conducting your research as needed. Please ensure your CITI Human Subjects Training is kept up-to-date and current throughout the study.

The CSUSB IRB has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval notice does not replace any departmental or additional approvals which may be required.

Your responsibilities as the researcher/investigator reporting to the IRB Committee include the

<https://outlook.office.com/mail/search/id/AAQkADMzM2FkNTA3LT...I6OS1iZTUxLWQ5NGM3MDDiMTdmZQAQAMITZ15wX4tFuiUq%2B%3D> Page 1 of 2

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