Exploring the Difference Between the Perception of the Effectiveness of Provider Communication Across Ethnicity Categories and Education Level

by

Javier Francisco Muñoz

Master of Public Health, California Baptist University, 2018

Thesis Submitted in Partial Fulfillment

of the Requirements for the Degree of

Master of Public Health

California Baptist University

December 2018

The College of Health Science

California Baptist University

Riverside, California

This is to certify that the Master's Thesis of

Javier Francisco Muñoz

has met the thesis requirements
for the degree of
Master of Public Health

Approved by:

Ashley Parks, DrPH
Assistant Professor
Committee Chair

Marshare Penny, DrPH
Associate Professor
Committee Member

Sanggon Nam, Ph.D
Associate Professor
Committee Member

Abstract

Patient experience has the ability to alter an individual's perception on the effectiveness of provider communication. Patient experience measures the quality of patient-centered care rather than the general satisfaction of a patient's doctor visit. The aim of this study was to explore the differences between patient experience and the perception of the effectiveness of provider communication for individuals who are of Hispanic or Latino ethnicity compared to non-Hispanic or Latino Medicaid enrollees. In addition, the study explored the differences between patient experience and the perception of the effectiveness of provider communication for individuals at different levels of educational attainment. The Consumer Assessments of Healthcare Providers and Systems (CAHPS) Adult Medicaid survey data was used to determine if there are differences. The CAHPS is a national standard for collecting and reporting information about patient care experience. A Mann-Whitney U test was used to answer the first research question. A Kruskal-Wallis test was used to answer the second research question. The findings of this study determined a difference between Hispanic and Latinos and non-Hispanic and non-Latinos patient experience and perception of the effectiveness of provider communication. In addition, no difference of patient experience and effectiveness of provider communication was found across different levels of educational attainment.

Key words: patient experience, Consumer Assessments of Healthcare Providers and Systems (CAHPS), Hispanic or Latino, educational attainment, provider communication

Acknowledgments

I would like to thank Dr. Marshare Penny and Dr. Sanggon Nam for their involvement in and knowledge throughout my thesis process. I would also like to thank my thesis advisor Dr. Ashley Parks for her guidance and patience. I have been blessed to work along side Dr. Parks throughout my thesis journey.

I would like to express my graditude to my friends and mentors for all their support. I will forever be grateful to Dr. Bonjun Koo for being a vital person in my decision to pursue a Masters degree.

I would like to thank my loved ones for their unconditional support and encouragement throughout my journey. Mom and Dad, I will never have the words to express how thankful I am. This journey was possible because of your unconditional love and support.

Table of Contents

List of Tables

Review of Literature

Introduction

In recent years, patient experience has become a primary concern in major hospitals, among medical associations, consumer groups, government entities, accrediting bodies, and health related organizations (Mazurenko, Collum, Ferdinand, Menachemi, & Fairbanks, 2017). Health care organizations have incorporated pay-for-performance programs that include measures based on patient care experience (Price et al., 2014). In 2010, the Centers for Medicare and Medicaid Services (CMS) was mandated to establish several public reporting and payment programs that incorporate information collected using the Consumer Assessments of Healthcare Providers and Systems (CAHPS) survey (Price et al., 2014). The CAHPS survey is a CMS program that sets the national standard for collecting and reporting information about patient care experience for both Medicaid and Medicare patients (Elliott et al., 2010). The CAHPS survey was designed to evaluate and improve specific patient needs (Clearly, 2016).

Patient Experience

Patient experience is not only specific to a patient's satisfaction with his/her care but also includes if proper care did or did not occur during a patient's visit. Patient experience is a measurement of the quality of patient-centered care rather than general satisfaction of a patient's visit (Clearly, 2016). Measuring patient experience has the ability to identify communication issues between medical personnel and patients (Sequist et al., 2008). Higher quality patient experience is a great indicator that a patient received a better quality of care (Price et al., 2014). Prior research

shows that better quality patient experience improves patient adherence, safety, and outcomes (Price et al., 2014). The results of patient experience surveys allow organizations to receive feedback and improve on important behaviors that patients believe need improvement (Golda, Beeson, Kohli, & Merrill, 2018). In California, a better patient experience is visible when patients attend hospitals with physicians that speak the same language as the patients (Elliott et al., 2009).

Hispanics Enrolled in Medicaid

Medicaid is an insurance program in the United States that provides health coverage to millions of people, including low-income individuals and a large number of racial minorities (Sohn, 2016). In 2013 and 2014, Hispanic adults age 19 to 64 years old were more likely to be insured by government health insurance than Caucasian adults (Austin, 2015). In 2013, people of color made up 58% of non-elderly enrollees in the Medicaid insurance program ("Health Coverage by Race," 2014). Out of the 58%, Hispanics accounted for half (29%) of all adult Medicaid enrollees ("Health Coverage by Race," 2014). Hispanics, one of the top racial minority groups in the United States (U.S.), are at a higher risk of experiencing lower quality of medical care than all other racial and ethnic groups in the country (Derose, Bahney, Lurie, & Escarce, 2009). The Agency for Healthcare Research and Quality (AHRQ) discovered racial minorities had more of negative perceptions of care than white non-English speakers (Weech-Maldonado et al., 2004). Hospitals that have a large percentage of Hispanic Medicaid enrollees tend to have lower patient experience ratings than other hospitals that treat Medicaid enrollees (Liu, Wen, Mohan, Bae, & Becker, 2016).

Hispanic Patients' Communication with Physicians

Hispanics patients often overestimate their ability to understand and communicate with their providers, which may lead providers to assume that patients understand all the recommendations they give their patients (Zun, Sadoun, & Downey, 2006). The inability to communicate with or understand providers has shown a decrease with treatment and adherence to their care (Eskes, Salisbury, Johannsson, & Chene, 2013). Minorities, including Hispanics, have reported worse patient experience in hospitals with a high concentration of Medicaid enrollees (Liu, Wen, Mohan, Bae, & Becker, 2016). Language barriers are a health disparity that affects the communication ability between Hispanics and physicians in health care (Cheng, Chen, & Cunningham, 2007). The communication inconsistency between Hispanics and their providers is not always evident in the early stages of a patient-physician relationship. However, Hispanics who are strictly Spanish speakers have a negative perception related to provider communication, timeliness of care, and staff helpfulness (Weech-Maldonado et al., 2004).

Not understanding cultural differences between the Hispanic and Latino community is a barrier to effective communication (Schyve, 2007). Hispanics who receive care from physicians who are of the same culture report that they are less likely to experience communication difficulties (Abraído-Lanza, Céspedes, Daya, Flores, & White, 2011). Hispanic and Latino patients have been found to have a preference of having a provider of the same ethnicity due to language difficulties (Chen, Fryer, Phillips, Wilson, & Pathman, 2005).

Educational Attainment Influence on Physician-Patient Communication

Research studies have explored the possibility that educational attainment is a greater predictor than health literacy in understanding healthcare information (Matsuyama et al., 2011). During physician consultations, patients with lower educational attainment are less involved in treatment decisions and are not held as accountable for their own care compared to patients with a higher education level (Verlinde, Laender, Maesschalck, Deveugele, & Willems, 2012). Patients with a lower education level are assumed to be less interested and less capable of understanding information provided by their physicians (Williams, Mohammed, Leavell, & Collins, 2010). A physician's ability to effectively communicate with patients includes taking the time to listen to patients' concerns and being able to clearly explain health problems and treatment (Quigley, Martino, Brown, & Hays, 2013). Educational attainment has the ability to influence communication styles between physicians and patients (Aelbrecht et al., 2014).

Physician-Patient Communication Among Different Educational Levels

Various patient characteristics are explored in patient experience. One characteristic used to distinguish overall patient experience is patient educational attainment (Zaslavsky, Zaborski, & Cleary, 2000). A study of 300 participants showed a difference in patient experience between patients with a post-bachelor's degree and patients who did not attend high school (Elliott, 2009). Patients with a post-bachelor's degree had a better patient experience than those who did not attain a post-bachelor's degree. It was also noted that patients with a high school degree had a better patient experience than those who did not attend high school (Elliott, 2009).

The variance in educational attainment has created a larger gap in health status between Americans (Goldman & Smith, 2011). Research has shown that less educated patients focus more on the emotional level of communication, while patients with a higher education level focus on task-oriented and problem-focused communication (Aelbrecht et al., 2014).

Conclusion

Patient experience has recently become a primary concern in hospitals and health care organizations as a way to improve the quality of patient-centered care (Clearly, 2016). Good physician-patient communication has become a great indicator of a positive patient experience. Previous research has shown that good communication is associated with better compliance with treatment recommendations that result in better health outcomes (DiMatteo, 1994).

This study will examine if Hispanic or Latino Medicaid enrollees have a different perception of patient experience than other ethnicities. Additionally, the perception of patient experience and provider communication for patients of different educational levels will be explored to evaluate if there is a different perception of patient experience across levels of educational attainment. Understanding the differences in perceived provider communication across ethnic and educational attainment categories is especially important given how research has shown that effective communication increases quality of care, disease prevention, health maintenance, and adherence to physician treatment recommendations (Travaline, Ruchinskas, & D'Alonzo, 2005).

Purpose of the Study

The purpose of this study was to determine if individuals who are of Hispanic or Latino ethnicity or who have low levels of education report experiencing lower levels of perceived patient experience with regard to provider communication. The Consumer Assessments of Healthcare Providers and Systems (CAHPS) survey, which evaluates patient experiences with health plans, providers, and health care facilities ("CAHPS: Assessing Health Care Quality," 2016), was used for data collection. The first goal of this study was to explore patient experience in the perception of provider communication between individuals who self-identify as Hispanic or Latino and those who do not identify as Hispanic or Latino. The second goal of this study was to explore patient experiences through the perception of provider communication across education levels. Understanding how patient experience differs across ethnicity and education level could lead to important insights needed to increase patients' hospital experiences for the Hispanic population and people with different educational levels.

Research Questions

This study aimed to answer the following research questions:

1) Do Medicaid enrolless who identify as Hispanic or Latino have a different patient experience with perception of effectiveness of provider commication than Medicaid enrollees who do not identify as Hispanic or Latino?
2) Do Medicaid enrollees with lower educational attainment have a different patient experience with perception of effectiveness of provider communication than Medicaid enrollees with higher educational attainment?

Hypotheses

It was hypothesized that patients of Hispanic or Latino descent have a different perception of patient experience in regard to physician communication. It was also hypothesized that patients of lower education levels have a different perception of patient experience in regard to physician communication.

Method

Design

This study utilized data from the 2016 Consumer Assessment of Healthcare Providers and Systems (CAHPS): Adult Medicaid Survey Database. The CAHPS is overseen by the Agency for Healthcare Research and Quality (AHRQ), which was established in 1998 to progress the understanding of patient experience and health care quality. This study employed a cross-sectional study design.

Procedures

No specific distribution method for the CAHPS survey administration is required by AHRQ. Surveys are administered at voluntary health care organizations. The variety of organizations range from providers to public agencies and multi-stakeholder organizations that seek to assess patient experience among patients, communities, and different geographic regions. The data collection methods are mail, telephone, in-person, and on the web. In special circumstances, the use of interactive voice response (IVR) and in-office distribution of surveys are offered.

Participation in the CAHPS survey is voluntary, and it takes approximately 15 minutes to complete. In every medium the survey begins with information regarding the confidentiality of the survey responses. In the first section, articipants are informed that their privacy is protected, their participation is voluntary, and given instructions to follow upon completion of the survey.

The CAHPS survey provides an explicit timeframe, or event reference, for when the survey was taken. Surveys are available in English and Spanish. If a translation is needed, the Centers for Medicare and Medicaid Services will provide

one. The survey is completely voluntary and confidential. The CAHPS data is disseminated annually to Medicaid enrollees.

Participants

This study includes secondary data collected by the AHRQ for the CAHPS database. The data collected includes Medicaid enrollees 18 years and older living in the U.S. who evaluated their experiences with health plans, providers, and health care facilities. A total of 41,964 Medicaid enrollees were initially available for the analysis. The minimum sample size for the research questions was determined by G*Power Software, version 3.1.9.2. A medium effect size, alpha level of 0.5, and power of 80% were used to determine a minimal sample size of 824 participants. A random 5% sample was taken from the total participants to determine the sample size used for this study. A random sample of 5% was used to avoid a Type II error. The sample size that was used after calculation was 2,097 participants.

Data Analysis

The first research question was answered using a Mann-Whitney U test. A Mann-Whitney U test was selected because the dependent variable was ordinal data. A Mann-Whitney U test compares two sample means to determine if they are equal or not. The second research question was answered using a Kruskal-Wallis test. A Kruskal-Wallis test is a rank-based test that determines if there is a statistically significant difference between two or more groups. Descriptive statistics were performed on communication score, educational levels, and ethnicity to ensure statistical assumptions were met.

Independent Variable

There were two research questions in this study. The independent variable for the first research question was ethnicity, measured by the variable, "Are you Hispanic?" with response options of "Yes, Hispanic or Latino" and "No, not Hispanic or Latino."

The independent variable for the second research question was the level of education completed by the Medicaid recipients. Initially this independent variable used the following options: "8th grade or less," "Some high school but did not graduate," "High school graduate or GED," "Some college or 2-year degree," "4-year college graduate," and "More than 4-year college degree." This independent variable was recoded to the following options: "No high school degree," "High school degree or GED," "Some college or 2-year degree," and "4-year degree or above." The independent variable was recoded to align with the National Center for Education Statistics (NCES) population characteristics (NCES, 2018).

Dependent Variables

There was one dependent variable in this study. The dependent variable in the study was the perception of effectiveness of provider communication. The perception of provider communication was determined by the question: "In the last 6 months, how often did your personal doctor explain things in a way that was easy to understand?" Response options included "Never," "Sometimes," "Usually," and "Always."

Results

To answer the research questions in this study, data was analyzed from the 2016 CAHPS Adult Medicaid database file using SPSS version 24.0. There were a total of 2,097 participants in this study. The demographic characteristics of the participants are shown in Table 1. The majority of the participants (29.1%) were between the ages of 55 to 65, followed by participants (22.9%) between the ages of 45 to 54. These age ranges accounted for more than half of the sample used for the analysis. Out of all the participants, 295 (14.1%) reported being Hispanic or Latino. A total of 1802 participants (85.9%) reported not being Hispanic or Latino.

Participants were from a range of different education levels. A total of 776 (37.0%) had a high school degree or General Education Development (GED), followed by 625 (29.8%) enrollees who have attended some college or have a 2-year degree, and 476 (22.7%) who did not have a high school degree. A 4-year degree or above was the least reported with only 220 (10.5%) Medicaid enrollees falling into this category.

The majority of participants were female (66.5%). One third of enrollees who participated were male (33.5%). Out of the 2,097 Medicaid enrollees who participated, 239 (11.4%) reported receiving help completing the survey. Only 1,063 participants (50.7%) reported not needing help, and a total of 795 participants (37.9%) did not report if they received help or not.

Perception of Effective Provider Communication Across Ethnicity Categories

To determine if Hispanic or Latino Medicaid enrollees have a different perception of patient experience with physician communication than enrollees who do

not identify as Hispanic or Latino, a Mann-Whitney U test was performed. The Mann-Whitney U test indicated that patient experience with physician communication was significantly greater for enrollees who do not identify as Hispanic or Latino (Mdn = 4) than for enrollees who identify as Hispanic or Latino (Mdn = 3) (U = 284,290, p = .01). As shown in Table 2, a statistically significant difference for perception of patient experience with physician communication was found between Hispanics and Latinos and enrollees who do not identify as Hispanic or Latino.

Perception of Effective Provider Communication by Level of Education

To determine if education level completed had a significant difference on perception of effective provider communication, a Kruskal-Wallis H test was performed. There was no significant difference between patient experience with physician communication between different educational attainment level ($H(3)= 6.61$, $p=0.08$), indicating that Medicaid enrollees with a lower level of education do not report experiencing a lower perception of effective provider communication. As shown in Table 3, the majority (74.8%) of participants believed that their doctor always explained health-related information clearly. The perception of effective provider communication does not appear to vary across education levels.

Discussion

The purpose of this study was to examine if there is a difference in the reported patient experience of effective provider communication between Hispanic or Latino Medicaid recipients as compared to non-Hispanic or Latino Medicaid recipients. In addition, the study examined if there is a difference in reported experience of effective provider communication across different levels of educational attainment.

Previous literature has discussed differences between Hispanic and Latinos and non-Hispanic and Latinos when measuring the perception of effective provider communication (Haviland, Morales, Dial, & Pincus, 2005). This study was in agreement with the previous literature as it found that individuals identifying as Hispanic or Latino do have lower scores when ranking their perceptions of patient experience with provider communication. The mean for Hispanic and Latino participants was significantly different in comparison to the group who did not classify themselves as Hispanic or Latino. The result for this research question showed that there is a difference between Hispanics or Latinos and non-Hispanics or Latinos, which is consistent with a previous study that suggested Hispanics and Latinos have a lower patient experiences with health care (Haviland, Morales, Dial, & Pincus, 2005).

It was hypothesized that individuals with lower educational attainment would experience a lower perception of effective provider communication. There was no significant difference in the result for perception of patient experience and provider communication across education levels among Medicaid enrollees. The result

suggests that enrollees who did not complete high school, received a high school degree or GED, attended some college or received a 2-year degree, and earned a bachelor's degree and above did not report a difference with their provider communication experience. This result is inconsistent with previous research. Previous literature suggests lower educational attainment affects enrollees' experiences with provider communication (Aelbrecht et al., 2014). Research by Fiscella and colleagues (2002) found that patients with a lower education level will report that their expectations were not met during a doctor visit. Further research needs to be conducted to investigate the inconsistency from this study on the effect of educational attainment on provider communication to prior literature.

Limitations of the Study

This research has various limitations. First, Medicaid programs are mandated to provide written materials at a fourth-grade reading level. The CAHPS Health Plan Adult Medicaid survey is a self-reported written survey that is written at a seventh-grade reading level (Morales, Weidmer-Ocampo, & Hays, 2001). Participants may have misinterpreted the questions and provided inaccurate responses due to the difficulty of the written material. Also, depending on the data collection methods, the Hispanic or Latino population may not have had access to an interpreter to help them understand the questions. Family and friends are permitted to assist for Medicaid enrollees who do not have the ability to answer the survey independently. Assistance from a family or friend may have biased the way a question was answered.

Secondly, there are a limited number of organizations that participate in the CAHPS database. The AHRQ clarifies that it is not possible to receive an accurate

representation of all U.S. health plans and enrollee populations through this database ("Data Source and Limitations," 2017). Organizations that participate in the CAHPS survey are located in different socioeconomic areas that include individuals at a variety of different income levels, educational levels, and medical needs. The location of the participating organization may have influenced the results of this study.

Public Health Implications

The findings of this study convey a difference of physician-patient communication experience between Medicaid enrollees of Hispanic or Latino ethnicity and other ethnicities. This study reinforces that Latinos in the U.S. are more likely to experience a lower quality of patient-centered care than other racial and ethnic groups (Derose, Bahney, Lurie, & Escarce, 2009). The results from this study can assist researchers in continuing to explore physician-patient communication among different ethnicities. Future studies exploring patient experience among Hispanics and Latinos could explore the different characteristics that cause the negative or positive experience of physician-patient communication. Future research can be further used to guide policymakers, health care organizations, and health care quality coordinators to implement interventions that focus on improving patient experience among different ethnicities.

It is important for hospitals and clinics to understand the demographics they are serving and try to eliminate barriers that decrease patient experience among Medicaid enrollees. The findings of this study support the use of patient experience surveys, such as the CAHPS, to help health care organizations stratify and analyze their data to assure their priority populations' communication needs are being met.

Additionally, these findings can be used to argue for the need to implement communication skills trainings in hospitals that have low patient experience in relation to physician-patient communication. The implementation of communication skills trainings could allow physicians to evaluate their own patient communication performance (Ammentorp, Sabroe, Kofoed, & Mainz, 2007). Providing education on communication tactics to future and present physicians can help increase patient experiences in hospitals. Physician-patient communication skills can be learned and attained from formal training and through direct patient contact.

References

Abraído-Lanza, A. F., Céspedes, A., Daya, S., Flórez, K. R., & White, K. (2011). Satisfaction with health care among Latinas. *Journal of Health Care for the Poor and Underserved, 22*(2), 491-505. doi:10.1353/hpu.2011.0042

Aelbrecht, K., Rimondini, M., Bensing, J., Moretti, F., Willems, S., Mazzi, M., . . . Deveugele, M. (2014). Quality of doctor-patient communication through the eyes of the patient: Variation according to the patient's educational level. *Advances in Health Sciences Education, 20*(4), 873-884. doi:10.1007/s10459-014-9569-6

Agency for Health Care Research and Quality. (2014, April 16). CAHPS: Assessing health care quality from the patient's perspective. Retrieved December 03, 2018, from https://www.ahrq.gov/cahps/about-cahps/cahps-program/cahps_brief.html

Agency for Healthcare Research and Quality. (2017, October 27). Data sources and limitations. Retrieved November 26, 2018, from https://www.ahrq.gov/cahps/cahps-database/comparative-data/2017-health-plan-chartbook/data-sources-limitations.html

Ammentorp, J., Sabroe, S., Kofoed, P., & Mainz, J. (2007). The effect of training in communication skills on medical doctors' and nurses' self-efficacy. *Patient Education and Counseling, 66*(3), 270-277. doi:10.1016/j.pec.2006.12.012

Austin, A. (2015). Obamacare reduces racial disparities in health coverage. Retrieved December 03, 2018, from

http://globalpolicysolutions.org/resources/obamacare-reduces-racial-disparities-in-health-coverage/

Chen, F. M., Fryer, G. E., Jr., Phillips, R. L., Jr., Wilson, E., & Pathman, D. E. (2005). Patients' beliefs about racism, preferences for physician race, and satisfaction with care. *The Annals of Family Medicine, 3*(2), 138-143. doi:10.1370/afm.282

Cheng, E. M., Chen, A., & Cunningham, W. (2007). Primary language and receipt of recommended health care among Hispanics in the United States. *Journal of General Internal Medicine, 22*(S2), 283-288. doi:10.1007/s11606-007-0346-6

Cleary, P. D. (2016). Evolving concepts of patient-centered care and the assessment of patient care experiences: Optimism and opposition. *Journal of Health Politics, Policy and Law, 41*(4), 675-696. doi:10.1215/03616878-3620881

Derose, K. P., Bahney, B. W., Lurie, N., & Escarce, J. J. (2009). Review: Immigrants and health care access, quality, and cost. *Medical Care Research and Review, 66*(4), 355-408. doi:10.1177/1077558708330425

Dimatteo, M. R. (1994). Enhancing patient adherence to medical recommendations. *JAMA: The Journal of the American Medical Association, 271*(1), 79-79. doi:10.1001/jama.271.1.79

Elliott, M. N., Lehrman, W. G., Goldstein, E., Hambarsoomian, K., Beckett, M. K., & Giordano, L. A. (2009). Do hospitals rank differently on HCAHPS for different patient subgroups? *Medical Care Research and Review,67*(1), 56-73. doi:10.1177/1077558709339066

Eskes, C., Salisbury, H., Johannsson, M., & Chene, Y. (2013). Patient satisfaction with language-concordant care. *The Journal of Physician Assistant Education, 24*(3), 14-22. doi:10.1097/01367895-201324030-00003

Fiscella, K., Goodwin, M., & Stange, K. C. (2002). Does patient educational level affect office visits to family physicians? *Journal of The National Medical Association, 94*(No. 3), 157-165.

Golda, N., Beeson, S., Kohli, N., & Merrill, B. (2018). Analysis of the patient experience measure. *Journal of the American Academy of Dermatology, 78*(4), 645-651. doi:10.1016/j.jaad.2017.03.051

Goldman, D., & Smith, J. P. (2011). The increasing value of education to health. *Social Science & Medicine, 72*(10), 1728-1737. doi:10.1016/j.socscimed.2011.02.047

Govere, L., & Govere, E. M. (2016). How effective is cultural competence training of healthcare providers on improving patient satisfaction of minority groups? A systematic review of literature. *Worldviews on Evidence-Based Nursing, 13*(6), 402-410. doi:10.1111/wvn.12176

Haviland, M. G., Morales, L. S., Dial, T. H., & Pincus, H. A. (2005). Race/ethnicity, socioeconomic status, and satisfaction with health care. *American Journal of Medical Quality, 20*(4), 195-203. doi:10.1177/1062860605275754

Kaiser Family Foundation. (2014, July 29). Health coverage by race and ethnicity: The potential impact of the Affordable Care Act. Retrieved from https://www.kff.org/disparities-policy/issue-brief/health-coverage-by-race-and-ethnicity-the-potential-impact-of-the-affordable-care-act

Liu, S. S., Wen, Y., Mohan, S., Bae, J., & Becker, E. R. (2016). Addressing Medicaid expansion from the perspective of patient experience in hospitals. *The Patient - Patient-Centered Outcomes Research, 9*(5), 445-455. doi:10.1007/s40271-016-0167-y

Matsuyama, R. K., Wilson-Genderson, M., Kuhn, L., Moghanaki, D., Vachhani, H., & Paasche-Orlow, M. (2011). Education level, not health literacy, associated with information needs for patients with cancer. *Patient Education and Counseling, 85*(3). doi:10.1016/j.pec.2011.03.022

Mazurenko, O., Collum, T., Ferdinand, A., Menachemi, N., & Fairbanks, R. M. (2017). Predictors of hospital patient satisfaction as measured by HCAHPS. *Journal of Healthcare Management, 62*(4), 272-283. doi:10.1097/jhm-d-15-00050

Moira, S. A. (1995). Effective physician-patient communication and health outcomes: A review. *CMAJ, 152*(9), 1423-1433.

Morales, S.Weidmer-Ocampo, L., Hays, & D., R. (2000, December 31). Readability of CAHPS 2.0 child and adult core surveys. Retrieved November 26, 2018, from https://www.rand.org/pubs/external_publications/EP20010029.html#related

Price, R. A., Elliott, M. N., Zaslavsky, A. M., Hays, R. D., Lehrman, W. G., Rybowski, L., . . . Cleary, P. D. (2014). Examining the role of patient experience surveys in measuring health care quality. *Medical Care Research and Review, 71*(5), 522-554. doi:10.1177/1077558714541480

Quigley, D. D., Martino, S. C., Brown, J. A., & Hays, R. D. (2013). Evaluating the content of the communication items in the CAHPS® Clinician and Group Survey and Supplemental Items with what high-performing physicians say they do. *The Patient - Patient-Centered Outcomes Research, 6*(3), 169-177. doi:10.1007/s40271-013-0016-1

Schyve, P. M. (2007). Language differences as a barrier to quality and safety in health care: The joint commission perspective. *Journal of General Internal Medicine, 22*(S2), 360-361. doi:10.1007/s11606-007-0365-3

Sequist, T. D., Schneider, E. C., Anastario, M., Odigie, E. G., Marshall, R., Rogers, W. H., & Safran, D. G. (2008). Quality monitoring of physicians: Linking patients' experiences of care to clinical quality and outcomes. *Journal of General Internal Medicine, 23*(11), 1784-1790. doi:10.1007/s11606-008-0760-4

Sohn, H. (2016). Racial and ethnic disparities in health insurance coverage: Dynamics of gaining and losing coverage over the life-course. *Population Research and Policy Review, 36*(2), 181-201. doi:10.1007/s11113-016-9416-y

Travaline, J. M., Ruchinskas, R., & D'Alonzo, G. E. (2005). Patient physician communication: Why and how. *JAOA Clinical Practice, 105*(1), 13-18.

Verlinde, E., Laender, N. D., Maesschalck, S. D., Deveugele, M., & Willems, S. (2012). The social gradient in doctor-patient communication. *International Journal for Equity in Health, 11*(1), 12. doi:10.1186/1475-9276-11-12

Weech-Maldonado, R., Elliott, M. N., Morales, L. S., Spritzer, K., Marshall, G. N., & Hays, R. D. (2004). Health plan effects on patient assessments of medicaid

managed care among racial/ethnic minorities. *Journal of General Internal Medicine, 19*(2), 136-145. doi:10.1111/j.1525-1497.2004.30235.x

Williams, D. R., Mohammed, S. A., Leavell, J., & Collins, C. (2010). Race, socioeconomic status, and health: Complexities, ongoing challenges, and research opportunities. *Annals of the New York Academy of Sciences, 1186*(1), 69-101. doi:10.1111/j.1749-6632.2009.05339.x

Zaslavsky, A. M., Zaborski, L., & Cleary, P. D. (2000). Does the effect of respondent characteristics on consumer assessments vary across health plans? *Medical Care Research and Review, 57*(3), 379-394. doi:10.1177/107755870005700307

Zun, L., Sadoun, T., & Downey, L. (2004). English language competency of self-declared English-speaking Hispanic patients. *Annals of Emergency Medicine, 44*(4). doi:10.1016/j.annemergmed.2004.07.139

Tables

Table 1
Demographic Details for Medicaid Enrollees in CAHPS Database (n = 2,097)

		n	%
Gender			
	Male	703	33.5
	Female	1394	66.5
Hispanic or Latino			
	Yes	295	14.1
	No	1802	85.9
Age			
	18 to 24	203	9.7
	25 to 34	296	14.1
	35 to 44	334	15.9
	45 to 54	480	22.9
	55 to 64	611	29.1
	65 to 74	107	5.1
	75 and up	63	3.0
Education			
	No High School Degree	476	22.7
	High School Degree or GED	776	37.0
	Some College or 2 Year Degree	625	29.8
	4-year degree or Above	220	10.5
Race			
	White	1177	56.1
	African American	404	19.3
	Asian	116	5.5
	Native Hawaiian/Pacific Islander	14	.70
	American Indian/Native Alaskan	21	1.0
	Other	111	5.3
	Multi-Racial	164	7.8

Table 1 (continued)

		n	*%*
Not Hispanic or Latino			
	No high school degree	356	19.7
	High school degree or GED	707	39.2
	Some college or 2-year degree	572	31.7
	4-year degree or above	167	9.40
Hispanic or Latino			
	No high school degree	107	36.3
	High school degree or GED	101	34.2
	Some college or 2-year degree	64	21.7
	4-year degree or above	23	7.80

Note: n = sample size; % = percentage. Data Source: 2016 Consumer Assessment of Healthcare Providers and System Adult Medicaid.

Table 2

Results from Mann-Whitney U Test Analyses

	N	U-Value	Sig.
Medicaid enrollees experience of provider communication	2,097	284,289.50	.01

Note: Significant level = .01 (P<.05)

Table 3

Results from Kruskal-Wallis H Test Analyses

	N	*df*	Sig.
Medicaid enrollees experience provider communication	2,097	3	0.08

Note: Significant level= 0.08 (P>.05)

Appendix A

IRB Approval

IRB No.: 093-1718-EXM

Project: Measuring the Impact of Hispanic Ethnicity and Lower Education Level Perception of Effectiveness Provider Communication

Date Complete Application Received: 4/13/18

Principle Investigator: Javier Munoz
Faculty Advisor: Ashley Parks

College/Department: CHS

IRB Determination: Exempt Application Approved – Student research using publically available, de-identified data set. Data analysis may begin, in accordance with the final submitted documents and approved protocol.

Future Correspondence: All future correspondence about this project must include all PIs, Co-PIs, and Faculty Advisors (as relevant) and reference the assigned IRB number.

Approval Information: At the completion of the project, you are to submit a Research Closure Form.

Researcher Responsibilities: The researcher is responsible for ensuring that the research is conducted in the manner outlined in the IRB application and that all reporting requirements are met. Please refer to this approval and to the IRB handbook for more information.

Date: April 13, 2018