

Running head: PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY  
RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL  
SURVEY OF CHILDREN'S HEALTH

Lois Abubakar  
University of Michigan-Flint  
Winter 2021

**Readers:**

Gergana D. Kodjebacheva Ph.D.

-----  
Signature



Date 5/7/2021

Harold Dalton, DNP

-----  
Signature



Date 5/7/2021

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

**Table of content**

Acknowledgement	4
Abstract	5
Introduction	6
Literature Review	8
Communication and Patient Satisfaction	9
Patient Trust and Communication	10
Communication and Health Outcomes	12
Family Communication Pattern	18
Race/Ethnicity and Patient-Provider Communication	19
Physician-Patient Communication in Pediatric Care and Health Outcomes	24
Limitations of prior studies on doctor-patient communication in pediatric	31
Gap	32
Research Questions	33
Hypothesis	34
Competencies	34
Method	35
Independent Variables	36
Dependent Variables	36
Analysis	37
Socio-Demographic Factors	38
Purpose of study	39
Results	40
Discussion	56
Study Strengths	63
Limitations	64
Future Study	65
Competencies Demonstrated	67

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

Conclusion	70
References	71
Appendix	77

# PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

## **Acknowledgements**

There are several people who have helped me in the process of conducting this Capstone project and facilitated the completion of the study. First, my Supervisor Professor Gergana D. Kodjebacheva has been immensely helpful in guiding me through the choice of topic, identifying and providing access to the data for the study as well as carefully reading the manuscript, making comments, suggestions and providing helpful insights that strengthened the quality of this study. I am deeply grateful. I also thank Dr. Harold Dalton for accepting the responsibility of being a second reader of the manuscript within a short notice. His comments and editorial work on the manuscript is deeply appreciated. I also thank Sambo Amaza for assisting me with data extraction and how to navigate the technical aspects of the computer. Hannatu Amaza has also been immensely helpful for taking time from her busy schedule with the children and their schoolwork to edit and make valuable suggestions. My husband has also been helpful in assisting with helpful comments and suggestions as I wrote the project. I also thank my family for the moral support and encouragement they gave me throughout the duration of my study and as I worked on this project.

# PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

## **Abstract**

### ***Background***

Effective communication in the health care setting is very vital because it determines, not only patient satisfaction but, most importantly, health outcomes. The study compared the perception of participants across racial/ethnic and socio-economic status groups about communication with their health care providers.

### ***Method***

Participants in this study are from available data from the 2016 National Survey of Children's Health (NSCH). The NSCH has been used to collect data since 2003. The NSCH data has several advantages. First, it has a broad national representation. Second, it includes information about the various ways that patients perceive how physicians communicate with them during visits. For example, it includes questions that relate to communication experiences such as: "physician's ability to carefully listen and give attention to the patient", "patient in decisions concerning care management", "provide necessary information for patient care", making it "easy for parents to raise concern and not be afraid to disagree with physician", "patients spending enough time with physician" etc. The variables were compared by race/ethnicity and socio-economic status.

### ***Results and Conclusion***

The results shows that there are differences in perception of communication between doctors and patients across racial/ethnic and socio-economic status (SES) groups. Another important finding of the study is that Hispanics rate communication with their physician even more positively than non-Hispanic Whites. Third, this study shows that non-Hispanic Blacks rated their communication with physicians more negatively compared to non-Hispanic Whites. The data also show that out of the three racial groups, non-Hispanic Blacks by far rated their communication with physicians in a more negative light than the other groups. The study also found that in terms of socio-economic status, participants who received welfare/assistance from the government rated their communication with physicians negatively than those who did not receive any assistance. Finally, this study found that households that use English as their primary language rated their communication with physicians more positively than households who spoke other languages. Interventions at the patient/parent and provider levels are needed to improve patient-physician communication.

# PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

## **Introduction**

Effective physician-patient communication is very crucial in the delivery of quality health care (Street, 1991; Epstein et al. 2005; Institute of Medicine). However, what constitutes an effective communication may have a variety of components. Communication in the health care setting is more than just an exchange of information regarding the health condition of the patient, such as taking information, physical examination, prescription, and care management. For communication to be effective, patients must not only be satisfied with the encounter but also have better health outcomes. Perceptions, both of patient and physician, therefore, become very crucial.

For example, the patient's objective view of the friendliness of the physician and feeling of involvement in interactions that take place during medical visits including the decision-making regarding management of the care of the patient is vital for effective communication. Another critical aspect is the level of trust gained towards the physician, by the patient. If the patient does not have confidence and trust in the physician, crucial information that could potentially lead to an accurate diagnosis might not be brought up, thus making the work of the physician even harder as they try to work alone, figuring out what could be plaguing their patient.

On the other hand, what is the physician's perception of the patient? The physician should be willing to consider the patient capable of relaying their symptoms enough to reach a diagnosis, even if it means through a translator. For only the patient knows what s/he is feeling. The perception of the physician towards his/her patient on the level of intelligence is vital in the process of reaching a level of mutual trust thus making both

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

sides satisfied with the outcome. While understanding disease and its management might not be easy for the average patient, there should be a level of understanding between patient and physician, enough to forge a team that will achieve the desired outcome of better health. This could mean the physician providing a break-down of the same information in an individualized way to each patient, depending on their level of comprehension. The goal is to communicate accurately and adequately the care and management of the patient.

All of these factors, and more, influence the patient's satisfaction, adherence to treatment and, ultimately, health outcome. In their study, Kodjebacheva et al. report that effective communication between physician and patient/parent promotes truthful disclosure of the reason for the visit, greater discussion of psychological issues, development of successful treatment plan and parental satisfaction (Kodjebacheva et al. 2017). The study by Kodjebacheva" et al found that children who were non-Hispanic Black or Hispanic, had unemployed parents, and received public coverage tended to have healthcare providers who did not communicate effectively."

### **Literature Review**

Central to patient satisfaction and better health outcomes is effective physician-patient communication. (Epstein et al. 2006, Zolnierek & DiMatteo 2009, Stewart et al. 1979; Stewart 1995,). While there are studies that have addressed the issue, it is pertinent to note that physician-patient communication has centered mainly on adults (Street Jr et al.2009, Stewart et al. 1979, Stewart et al 2000, Matusitz& Spear, 2014). The few studies that examine pediatric patients did not focus so much on communication and its

# PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

effect on health outcomes (Pantell, Stewart, Dias, Wells & Ross 1982, Kodjebacheva et al. 2017; Weeger & Farin, 2017).

In this literature review, I will first examine what the literature has to say about communication and patient satisfaction. Then I will review how issues of trust affect physician patient communication. Although my focus is not necessarily on the issue of satisfaction or trust, the literature will reveal that these factors influence patient adherence to physician recommendations of care plan and management. Third, I will review the literature on communication and health care outcomes in adults. Here, I will explore whether patients have responsibility in making communication effective. Then, I will review the existing literature on communication in pediatric care, which will be the focus of my study. Finally, I will discuss the limitations of the studies and the gap in the literature. I will then specify how my study attempts to fill that gap in the literature.

## **Communication and Patient Satisfaction**

Studies have shown that there is a strong association between effective communication and patient satisfaction; and, that adherence to treatment plans lead to better health outcomes (Zolnierek et al. 2009, Stewart, et al. 1979, Stewart, 1995, Stewart et al 2000, Epstein et al. 2005; Korsch & Gzzi. 1968). Effective patient-physician communication produces a therapeutic effect for patients as can be attested by the volume of studies available (Travaline et al. 2005; Adler et al, 2005). This is because the manner in which a physician communicates is as important as the information being communicated. Effective communication makes it easier for a patient, not only to understand treatment options but also to be able to modify their behavior accordingly, and to adhere to their



## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

medication schedule. According to Travaline et al. (2005), studies suggest that effective communication has the capacity to improve the health of a patient as much as many drugs, which could explain for the powerful placebo effect seen in clinical trials (Travaline et al, 2005).

In a study of 299 chronically ill patients, Stewart et. al describe the doctor/patient relationship with regards to the doctor's knowledge of the patients problems, including psychological, as well as physical challenges. They observed that "the doctor's knowledge of the patient's complaints was positively associated with their alleviation". Furthermore, they found that doctors tend to be aware of only one problem regardless of how many numbers of problems the patients have reported. The study also found that it was easy for patients to reveal complaints, discomforts, worries and disturbances that are common every day. However, personal social issues took longer time and mutual involvement of doctor and patient. The result of this study found that neither age nor education affected the communication between doctor and patient. A major limitation of the study is the fact that it cannot be generalized because it is based on information from a few rural doctors. The method through which the information was solicited from patients and doctors was another limitation. Prior interview with the investigator, before seeing the physician, may have affected the result which showed high patient satisfaction.

### **Patient Trust and Communication**

Another aspect of the literature on patient-doctor communication is the issue of trust. Trust is crucial in the doctor-patient relationship because it affects patient response to

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

provider recommendations concerning management of care. Studies have found a positive relationship between physician affect and trust. A correlation is also found between interpersonal relationships and trust (Safran et al 1998). Earning the trust of patients leads to honest dialogue between physician and patient. When patients trust their physician, they open up about their health conditions and this leads to accurate diagnosis. In the context of this study, accurate diagnosis simply means that prescriptions and treatment regimen plans will be the right ones. When there is effective communication, patients adhere to treatment plans not only because they trust their physician, but they also feel being part of the decision-making process concerning these plans. Patients with higher trust in their physician usually have more beneficial health behavior, less symptoms and higher quality of life and they are also usually more satisfied with their treatment (Chandra et al., 2018). Studies suggest that trust is closely related to and influenced by the healthcare provider's communication skills (McKinstry B, et al.; Goold S. D, 2002; Meyer S. et al, 2008; Ong L. M et al,1995). When patients perceive that physicians care about them and are interested in them personally, they are more likely to volunteer information and be more active in the encounter. Such patients are likely to be more satisfied and more adherent with their medical regimens. (Ben-Sira, 1976, 1998; DiMatteo and Freedman, 1980; Hall and Dornan, 1998; Ross and Duff, 1982; Hall et al 1993 Chandra et al 2018). As Fong et al. (2010) report, good doctor-patient communication has the potential to help regulate a patient's emotions, facilitate understanding of medical information and allow better identification of patient's needs, perceptions, and expectations. In healthcare settings, trust and communication

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

are labeled as tools for better patient care and patient satisfaction. Honest communication can flourish only when some degree of trust has been established between the physician and patient. As Chandra et al. put it, to trust means “to believe that someone is honest, nice and good and will not harm you” (Chandra et al 2018). Some of the patient’s expectations of the doctor which helps to build trust include doctor competence, compassion, empathy, dependability, and the perception that the doctor is interested in their goodwill, and the expectation of good outcome of their medical visit (Pearson S. D et al.2000). It is possible that the perception of trust can also be influenced by other factors. A study by White and his colleagues observed higher levels of medical mistrust among low-income diabetes patients seeking care in a public health setting than their counterparts from high income groups (White et al 2016). Race/ethnicity is also associated with level of trust. Studies have found that African Americans have reported lower levels of trust than their white counterparts (Martin et al.2013, Boulware et al., Doescher et al 2000., Gordon et al 2006, Armstrong et al., 2007, Durant et al. 2010). Furthermore, the study observed that higher medical mistrust was significantly associated with lower odds of reporting better communication quality with providers. Apart from trust, several other factors also influence the interaction between physician and patient. These factors include the “skill level of the provider, complexity and length of encounter, the clinic environment, level of health literacy of the patient and language proficiency” (White et al, 2016).

# PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

## **Communication and Health Outcomes**

Effective physician-patient communication during medical visits has been linked empirically to outcomes of care, including patient satisfaction, knowledge, health status, recall information and adherence to therapeutic regimen (Zolnierek, 2009; Robin Catherine C. Lewis, Robert H. Pantell and Lee Sharp, 1982). Also, conclusions from a meta-analysis of 127 studies supports the prediction that patient adherence is significantly related to the communication of physician; and that adherence can be improved when physicians are trained to be better communicators (Zolnierek 2009 et al.). Furthermore, Zolnierek et al. argue that communication skills displayed by a physician during the medical visit may be one of the most important factors in achieving adherence, because it improves the transmission and retrieval of important clinical and psycho-social information.

Effective communication skills by a physician also facilitates patient involvement in decision making and also allows open discussion regarding benefits, risks, and barriers to adherence. It also helps to build rapport and trust (Travaline et al. 2005); and, in the process offer patients verbal and non-verbal support and encouragement. The study found that patients with physicians who communicate effectively have a 19% higher rate of adherence; and secondly, that training physicians in communication skill improves adherence by 12% (Zolnierek et al. 2009). This suggests that when physicians improve their communication skills, it may lead to better health outcomes. Kodjebacheva et al. (2016) also found that the “important factor for successfully preventing, treating, and managing conditions of children is effective communication between medical providers

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

and children and/or their parents during medical visits" (Kodjebacheva et al. 2016). On the other hand, lack of clear communication between healthcare professionals and parents about their hospitalized child's disease, prognosis and treatment has been identified as the most important cause of stress (Ladak et al. 2012).

In a response to an open-ended question in a parental satisfaction questionnaire, Ladak et al (2012) found that including parents in rounds gave the parents opportunity to communicate with the medical team about any concerns they may have; and offer additional information where needed, which results in less stress for the parents. For example, parents were able to fill in some gaps about the information on the patient's history by telling the health care professional that the child received a blood transfusion in another hospital. In another instance, a parent was able to correct an information about the child's approximate weight which is used to calculate medication dose. Another parent corrected the information about immunization history and the signs and symptoms that led to the child being admitted. While parents' response to family centered rounds was positive, the reverse was the case among health workers. They feel asking questions in between rounds will waste time, family anxiety will increase, parents will interfere and are not able to understand round discussion due to terminology etc.

A study by Kodjebacheva et al. suggests that ineffective communication is related to poor health and activity limitation among children. The study also found that the simple act of carefully listening to the patient by the physician can affect the child positively, thereby promoting health in children (Kodjebacheva et al., 2017). While the study by

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

Kodjebacheva is comprehensive: N= 87,133 and also nationally represented, because the data used is derived from the National Survey of Children's Health, they acknowledged the fact that causal relationship could not be established since the opposite association of poor health leading to poor communication could also be true. Another limitation of the study is that parental perception could not be verified through clinical observation. Effective patient-physician communication produces a therapeutic effect for patient as can be attested by the volume of studies available (Travaline et al. 2005; Adler et Hibbard and Greene 2013, Stewart et al 1979)

Studies also show that patient perception of involvement in care can have several positive health outcomes. For example, in their analysis of the electronic health record and survey data, Hibbard and Greene (2013) found that knowledge, skill and involvement in care is strongly related to health-related outcomes, such as engaging in screening behaviors, less likelihood to smoke or have high BMI and fewer hospitalizations. Furthermore, studies (Fong et al 2010, Stewart M.A et al. 1979; Zolnierek et al. 2009) also suggest that communication contributes to a patient's understanding of illness, risks, and benefits of treatment. Such understanding motivates adherence to treatment which, in turn, leads to better health outcomes. This is especially important in situations where patients perceive themselves to be more involved, not only in being able to effectively communicate with the health care provider, but also in decision making with regards to treatment-which is referred to, in the literature, as shared decision making. (Rauscher et al. 2020).

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

Patient perception of providers is also associated with health outcomes as the study by Stewart et al (2000) reveals. The study titled: *"The Impact of Patient-Centered Care on Outcomes"* found that positive perceptions of a healthcare provider is associated with "better recovery from patient discomfort and concerns, better emotional health two months later; and fewer diagnostic tests and referrals". Fong et al. also found that patient agreement with their doctor about the nature of treatment is strongly associated with their recovery (Fong 2010). Effective communication means it is not just the physician providing information for the patient to follow. Rather, it involves both parties sharing information freely, understanding each other's point of view and deciding on what is the best course of action in the provision of care. Doctor-patient visits should be more patient centered than physician centered. Simply put, medical visits should be marked by active patient participation in the medical diagnosis and treatment, rather than physician dominance (Roter et al.1997, Roter et al 1992). As Stephen C. Adler et al (2005) found in their study on *"Reducing Parental Demand for Antibiotics by Promoting Communication Skills"*, helping patients/parents to communicate in the clinic setting could lead to a substantial improvement in the provision of medical care as well as reduce the unnecessary prescription of antibiotics (Adler et al, 2005). They also argue that for communication to be effective, parents must feel that they can successfully manage their children's symptoms.

In the study, three different types of interventions and a control group were used to determine which approach led to the reduction in demand for antibiotics for children. There was a communication approach where parents were asked to review four

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

questions to be answered during the clinic visit. Parents also engaged in role plays with the researcher acting as a parent asking the questions and then as the physician answering them. The other group is an information-only group. This group received written information concerning the appropriate use of antibiotics. The third group is a combination of both communication intervention and information; while the final group is a controlled group which uses only child nutrition as a focus of intervention. The study found that satisfaction with clinical visit was associated with a parent's ability to communicate with the child's physician and not necessarily that antibiotics are prescribed. When patients are able to obtain correct health information regarding their situation, and feel they can communicate easily with their health provider, they are able, not only to possess the ability to maintain control during consultation but, to participate in discussions concerning their treatment (Annandale, 1987)

Most discussion about doctor-patient communication relationship has been patient centered; and has been defined mainly from the perspective of physician behaviors to achieve patient-centered care (Stewart et al. 2003; McCormick et al., 2011). As a result, physicians are always asked to modify their orientation in order to achieve patient-centered care. The assumption here is that patients are the vulnerable ones in the patient-physician communication during medical visits, therefore, they need to be protected. However, in order for effective communication to thrive between patient and physician, both must make a "concerted effort in that direction" (Hirono et al. 2013). Most studies conducted in the past paid very little attention to the responsibility of the patient in contributing to effective patient-physician communication (Clayman et al.



## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

2010). Attention has been shifting towards what is referred to as Patient-Centered communication. In this model, the patient is given greater power not only to access information but also to know the roles and responsibilities they have in decision making. That is why patients need to realize the enormous responsibility they have in ensuring that communication flows, especially in the area of health literacy. As Selden et al (2000) observed, "the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions is very critical." For patients to increase control over their health, they need to develop their competencies for making decisions and engage in behaviors that can lead to desired and attainable health outcomes.

### **Family Communication Pattern and its Effect on Physician-Patient Communication.**

Patterns of family communication can also have an impact on the way that patients interact with their healthcare provider. This is usually determined by conformity orientation. According to Fitzpatrick (2014), conformity orientation refers to "the degree to which families create a climate that stresses homogeneity of attitudes, values and beliefs." Families that have a high level of conformity, also emphasize strict adherence to rules; and, absolute submission to authority will tend to produce patients that are less likely to be involved with their care, as well as less satisfied with their interactions with providers. This is what is referred to, in the Family Communication Pattern Theory (FCPT), as cold conformity. Conversely, families that are relaxed and allow members to freely express their views as well as engage each other in decision making are likely to

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

be more communicative as well as more satisfied in their interaction with providers. This is referred to as warm conformity.

An experimental study shows that an opportunity to have some communication prior to surgery can reduce the surgical morbidity and improve physiological and behavioral outcomes in children (Emily A. Rauscher, Colin Hesse, and Gemme Campbell Salome, 2020). The result from the study by Rauscher et al. also shows a strong relationship between family communication pattern and patient involvement in care; thereby, indicating the role of the family in shaping communication behavior in healthcare. A number of studies (Nam, Chesla Stotts Kroon, and Johnson, 2011; Pantell et al., 2014, Sakar et al. 2008) suggest that there are several factors that affect the perception as well as actual quality of patient-provider interaction in adults. Such factors include the skill level of the provider, the complexity and length of encounter, the clinic environment; as well as patient-level factors such as health literacy and language proficiency.

### **Race/Ethnicity and Patient- Provider Communication**

Central to the delivery of equitable and high-quality care is the interpersonal communication between patients and their health care providers/clinicians. Studies suggest an association between communication to not only satisfaction (Griffin et al. 2004); adherence to treatment and recommendations (Stewart et al.1999); and health outcomes (Kaplan et al.1989) but studies emerging also suggest there is an association between communication and racial/ethnic disparities in health care. African Americans and other minority group patients experience poorer interpersonal communication,

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

including lower levels of affective behaviors such as rapport building and overall affective tone and greater physician dominance, less patient centeredness and shorter visits compared to white patients, Kimberly et al. (2013).

According to Ryn and Burke (2000) "Physicians tended to perceive African Americans and members of the low and middle socio-economic status (SES) groups more negatively on a number of dimensions than they did whites and upper SES patients."

The study found associations between a patient's race and physician's assessment of intelligence, feelings of affection towards the patients as well as his/her beliefs about risk behavior such as smoking, unhealthy choices in eating habits, risky social behavior, and adherence to medical advice. This means that if physicians feel that their medical advice will not be adhered to, or their patients are not intelligent enough to understand the nature of their disease or illness, they will decide not to offer it. Ryn et al. concluded that negative attitudes and assumptions about patients have implications for healthcare outcomes.

In fact, studies have found that physician attitudes, perceptions and beliefs about a patient affects physician's behavior in medical care encounters (Sheehan et al., 1985, Roter et al., 1988., Hall et al., 1988; 1993., Kaplan et al., 1995) and treatment decisions (Tishler, 1966, Sudnow, 1967, Gerbert, 1984; Stern et al. 1991; Schulman et al., 1999). For example, Gerbert found that physicians varied their treatment decisions based on their perceptions of the likability or competence of simulated patients.

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

Sudnow and Tishler report that persons that are considered deviants in society (Sudnow, 1967) or less likable (Tishler 1966) have been found to receive less medical attention and follow-up care (Ryn and Burke, 2000.) A physician's perception of patients from low SES and minority groups on intelligence, education and rationality may explain the reason why physicians deliver less information to such patients; and are less likely to listen or even respect them ( Hooper et al., 1982; Epstein et al 1985; Waizkin, 1985; Roter et al. 1988, Ryn and Burke 2000).

A study by Cooper and Roter found that, even after adjustment for patient age, race, frailty/sickness, depression, mastery, social assertiveness and physical characteristics, physicians tend to perceive African Americans and members of the low and middle Socio Economic Status (SES) groups more negatively on a number of dimensions than they did whites. For example, African American patients were perceived to be less intelligent, more likely to be engaged in high risk behavior and less likely to adhere to treatment (Cooper and Roter, 2013).

However, even more than race, patients of low SES have a broader effect on physician perception. They are perceived as having negative personality attributes such as "lack of self-control" and "irrationality". Not only are people of lower SES perceived to have less intelligence, they are also deemed to have negative behavioral tendencies and fewer role demands (Ryn and Burke. 2000). Some studies suggest that in the same settings, physicians not only provide less information, but also engage in less supportive conversation and less proficient clinical performance to Blacks and Hispanic patients; and patients of lower economic class; than they do the more advantaged patients

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

(Bartlett, Grayson, Levine, Golden and Libber, 1984). White et al. (2016) reports that Patients who frequently report low quality of communication from their physicians tend to be those at the bottom of the socio-economic ladder, with little or no significant education, and mostly transient workers (White et al 2016). However, the lack of continuity of care which arises because patients are migrant workers, with no permanent address, could also be the reason why such patients are unable to establish a long-lasting relationship with physicians that can lead to the development of physician-patient trust.

A study by Johnson et al. (2000) revealed that physicians were verbally more dominant and tended to be less patient centered in their approach with African American patients than with whites. Gordon et al. (2006) argues that when physicians don't provide enough information and dominate the conversation, patients are less likely to gain adequate understanding of their health condition and treatment options. Thus, patients are often less satisfied with care and are less likely to adhere to physician recommendations which leads to poorer health. A study by Gordon et al. (2006) titled "*Racial Differences in Trust and Lung Cancer Patients' Perception of Physician Communication*" found "that perceptions that communication was less supportive, less partnering and less informative accounted for Black patients lower trust in physicians."

When patients do not participate fully in the patient-physician interaction process, physicians may not get sufficient information for making appropriate treatment decisions. Patients may be less committed and less satisfied with those recommendations. Even when the time spent with a physician is the same between

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

African Americans and whites, the perception of physician communication differs between the two groups. This is because it is not the overall time spent, but patient engagement and participation during a medical visit that may contribute to health disparities (Johnson et al. 2000). African American patients rate their visits with physicians as less participatory than whites (Cooper-Patrick et al. 1999). The implication of lack of effective communication includes the fact that correct information about patient condition may not be obtained. Thus, making the right diagnosis becomes difficult, if not impossible. In such situations, trust cannot be built between the patient and his/her physician; and where there is no trust, there is less likely to be adherence to recommendations on care management or patient satisfaction. All of these factors contribute to health outcomes becoming less than optimum for patients from minority race/ethnicity and people of lower SES. This is particularly worrisome when it concerns children. Health conditions that would have been easily and successfully treated become chronic, because it is overlooked due to communication gap or physician perception and biases. All of these ultimately result in poorer health outcomes for the patients of minority race/ethnicity and people of lower SES, compared to white patients.

In order for physicians to effectively communicate with their patients, they need to understand the social and economic conditions from which their less advantaged patients come from. The conditions in places where people live, learn, work, and play that affect a wide range of health risks and outcomes are what is referred to as Social determinants of health (Healthy People 2020). It is estimated that in the U.S, the median wealth for White households is 10 times the wealth of African American households.

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

According to Cilluffo (2017), even before the Covid-19 pandemic, the poverty rate in the U.S. has been disproportionate along racial and ethnic lines: 24% for Native Americans, 22% for African Americans and 19% for Hispanics, compared to 9% for Whites. (Kaiser Foundation, 2018). One only has to look at the ongoing Covid 19 pandemic to see the disproportionate impact it has and is having on ethnic and racial minorities in the United States. Within the first quarter of the pandemic outbreak (June 2020) African Americans accounted for 21.8% of Covid-19 cases even though they constitute only 13% of the total population. LatinX accounted for 33.8% of cases and constituted 18% of the US population (Tai et al. 2020). When this is confounded by poor communication the result will be poorer outcomes for patients, and negative reviews for physicians.

### **Physician-Patient Communication in Pediatric Care and Health Outcomes**

Effective communication is especially important in pediatric care because children, being young, may not be able to express themselves clearly nor, for the most part, understand issues concerning their health or how the process of growth and maturity affect their health. It is, therefore, hard for them to effectively communicate the health issues and challenges affecting them. A doctor who is trained in the art of communication may be able to help the child clearly express the health challenges affecting them, thereby leading to proper diagnosis and treatment. Even though there are very few studies that center on physician/patient communication in pediatric care and its effect on health outcomes, the few that exist suggest there is an association between the two. A study by Kodjebacheva et al (2017) reported a “higher percentage

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

of children whose provider reportedly did not communicate effectively had poor/fair health and activity limitations compared to excellent/good/very good health or no activity limitations, correspondingly” Not only is poor listening associated with poor/fair health and activity limitations. They also found that just the act of listening carefully by the provider may help promote the health of the child.

Medical communication for adult patients is quite different from pediatric patients (Lambert et al;2011) for the obvious reasons that they are not able to articulate their concerns very well. In pediatric care, pediatricians are faced with the difficult task of effectively communicating with both parents and children concerning issues such as psycho-social and developmental concerns, in addition to medical conditions of the child (Nobile and Drotar. 2003). Earlier studies (Korsch et al 1968; Francis et al. 1969 and Freeman et. al. 1971) found a strong relationship between patient-provider communication and adherence to treatment recommendations. Their study found that the more effective the communication between parent and provider, the more likely parents were satisfied, and adhere to follow-up phone calls and appointments. However, advances in both medicine and technology have created discrepancies between families' and physician's understanding of disease and perspectives on illness (Roter D. 2000; Shorter E. 1985). A physician's interpretation of disease will be guided by what the physical examination shows while parents may see it differently, depending on their cultural norms and beliefs. Thus, effective communication in pediatric care between parents, child and the physician become necessary.



## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

In children and adolescents, communication cannot be effective if it is not developmentally based (Treadwell, 2015). While it is not possible for children to engage in communication as infants or even as toddlers, there comes a time when a child is capable of expressing him/herself. Physicians can engage such patients in discussion concerning their health by explaining the biological/physiological changes taking place in children. In addition to having the best outcome for patients, successful communication allows a provider the privilege of knowing and connecting with their patients at a much deeper level (Treadwell, 2015). It is such connections that help to build trust which, in turn, leads to adherence to physician recommendation that ultimately results in better health outcomes. In addition to the child's inability to understand medical terms clearly, parents tend to interrupt the participation of the child (Tates and Meeuwesen, 2000). In response to one of the questions asked during an intervention test, a child responded thus: "Kids aren't supposed to talk to the doctor. That's your mom's job. If I talked, I might get grounded" (Lewis et al; 1991). While this may not be the typical way children view their participation or lack thereof, the perception of children with regards to their contribution in discussing their care, appears to be that: they can give their inputs when asked, but cannot contribute on how they can receive treatment. However, Pantell et al. (1982) reports that physicians who talked more extensively with children generated better parental satisfaction as well as adherence to therapeutic regimens in the patient's parents.

Difficulties exist in pediatric medical visits because of a number of reasons. First, both parents and children may fail to clearly express major health conditions or concerns to

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

physicians. That is why there is a need for physicians to be trained in the art of communication because as Fong et al. 2010 report, doctors with better communication and interpersonal skills are, not only, able to detect problems earlier, but can prevent medical crises and expensive intervention as well as provide support for their patients. Secondly, while children are involved in the process of information gathering concerning their health issues, they are generally excluded from discussing how the course of treatment should proceed.

According to Pantell et al (1982),” there is inequity in the way that information flows. Physicians rely on children for obtaining information yet provide feedback primarily to parents; parents receive nearly three times as much information as children about diagnosis and management” (Pantell et. al. 1982). Also, Pantell et al. found that physician-child interaction accounted for 54.6% of information gathered but when giving information, the interaction between physician and parent is at 72.8%. Inadvertently, children may perceive that although they are competent enough to give information, they are not as competent to receive or participate in health information that concerns them or even get involved in care.

Observational studies show that children are interested in clinical information and are able to retain some information better than adults. A case in point is an example where an 8-year-old is able to provide a physician with the name, dosage, and schedule of her prescription medication because her father was unable to answer the questions. However, throughout the communication process, the physician never broke eye contact with the father, even though he was getting information from the child (Pantell et

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

al.1982). If that child is competent enough to give accurate information about prescribed medication, the child should be involved in how her health is managed. Promotion of knowledge, health habits and sense of control over health in children cannot be effective if the children are not involved in decisions concerning their care.

While the result of the study provided insight into the nature of doctor-patient communication in pediatric care, the fact that the number of participants in the study is too small, means that findings cannot be generalized. Gardiner and Dvorkin, 2006, suggest that having a child contribute to the development of their treatment plan may improve adherence to treatment. There are, of course, other studies which suggest that pediatricians give more attention to their child patients than parents. For example, Freemon, Negrete, David and Korsch (1971), in their study on "Gaps in Doctor-Patient communication..." found that very little time is given to mothers and that discussion centers mainly on medical issues at the expense of psychosocial issues. Their study is based on data and analysis of 285 visits to the walk-in clinic in Children's Hospital of Los Angeles - University of Southern California. Considering that parents are the ones expected to follow through with care, inability to effectively communicate with mothers is bound to affect not only satisfaction but more importantly adherence to treatment regimen.

Physicians should ensure that there is a balance between the time given to both parent and child in such a way that both feel relevant and, therefore, eager to participate in decision-making concerning care for the child. Thirdly, children may not understand information communicated by the physician. A child's concept of health, illness and

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

bodily change that comes with maturity in age, varies a great deal with what the physician knows. In addition, judging or drawing conclusions on what can be understood by the child may present a challenge for the physician (Catherine C. Lewis, Robert H Pantell and Lee Sharp, 1991). That is why the literature emphasizes the importance of physicians gaining the necessary training that will improve their communication skills. Acquiring the right communication skills will help physicians to ask the right questions that will elicit the correct answers, thereby helping them to make the right diagnosis; and prescribe the right treatment. Physicians will also be able to ensure that information communicated across to patients is understood clearly.

For pediatric patients, caregivers/families must be able to understand clearly the messages communicated by health providers in order to effectively adhere to treatment. Where pediatric patients are old enough to express themselves, health providers should try, as much as possible, to engage such patients in trying to understand the problem as well as the type of care that could produce the best outcome. Older children should be involved regarding their own care (Tate K.; et al. 2001.; Lewis C. et al. 1991; Pantell RH et al 1982). Meta studies (106 studies; Zolnierek et al, 2009) show that the relationship between respondent's adherence and their physicians' communication is strongly positive and significant ( $P < 0.001$ ) with both fixed and random-effects tests.

Research findings also suggest that effective communication might even be more important in achieving adherence in pediatric care than in adults. This may be because pediatricians must communicate at the level of both child and parent. Thus, the physician must ensure information presented to both parent and child about the

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

recommended regimen is clearly understood (Zolnierek et al. 2009). Some studies (Lewis et al 1991; Pantell et al 1982) also suggest that although physicians engage children in social exchanges, they tend to be excluded from substantive discussion. For example, a study conducted by Lewis et al (1991) on increasing patient knowledge, satisfaction, and involvement, suggests that with a brief intervention, it is possible to increase children's participation in substantive aspects of medical visit. The study also shows that an increase in patient knowledge influences children's acquisition of information, their sense of rapport with physicians and their preference for an active role in healthcare.

Since health and lifestyle behavior often begin at childhood, it logically implies that if physicians are to have significant success in inculcating healthy lifestyle behavior and choices; they should engage children in substantive discussions through effective communication. Such communication should begin as soon as children are able to engage in dialogue with healthcare providers.

The literature reviewed above has clearly revealed the significance of effective physician-patient communication not only in enhancing satisfaction but in some cases, better health outcomes. The few literature reviewed here on the influence of communication on health outcomes in children, indicate that when there is effective physician-patient communication, there is better adherence to treatment and greater compliance to management plan (Korsch et al 1968, Francis et al 1969, Freeman et al 1971). Effective treatment and positive health outcomes are enhanced when patients perceive that they are involved in the decision-making concerning the nature of their

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

diagnosis as well as the plan to manage treatment. As the literature indicates, when there is physician-patient consensus, patients easily comply with treatments and that leads to better health outcomes. Although physician-patient communication is often difficult, the literature seems to suggest that communication can be effective once there is training/intervention (Kodjebacheva et al 2017, Lewis et al 1991) for both patients and physicians. Patients can enhance their communication skills by educating themselves in health matters and physicians can engage in continuous training in order to keep up with rapid social and technological changes that are taking place in the health care sector.

### **Prior Limitations of Studies on Doctor-Patient Communication in Pediatric Population**

A lot of the studies reviewed in the literature above have small sample size and are localized; therefore, the findings from such studies cannot be generalized. However, they do provide a starting point for further research. For example, Stewart et al., in the study *"The Doctor-Patient Relationship and its effect on Outcome"* has a sample size of only N= 299. The main source of information was from 5 doctors serving rural populations. Although the response rate was good at 72%, the findings cannot be generalized.

Furthermore, the study by Pantell et al. have only N=115 as sample size and also localized at Family Medical Center at University of South Carolina. In Ladak et al., study N=82, and focused at a private hospital in Karachi, Pakistan. Also, the study by Adler et al. has N=80 in 2 clinics in Salt Lake City, Utah. In contrast, the study by

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

Kodjebacheva et al. N=87,133 has a much broader national representation because the authors analyzed a national survey data. Thus, unlike the other studies, Kodjebacheva conclusions and findings may have some general application. Areas of limitation, however, include the fact that causal relationship could not be assessed through the study. They suggested that the opposite could also be true i.e. poor health could also lead to poor communication. That area needs to be explored in future studies. Another area of limitation, as stated by the authors, is that parental perceptions were not verified through clinical observation.

Disparities in healthcare and on the socio-economic level have long plagued minorities and continues to be a source of concern for this group. While not all disparities could be blamed on communication or the lack of it, or on the income level of the individual, it could be inferred that the lack of resources can be the cause of illiteracy. Poverty could directly affect the ability of an individual to get a good education or an education at all, that could set one up for a more stable future on a financial level. The inability to get a job due to lower educational attainment could subsequently lead to a lower income job where health insurance might not be offered or too expensive to handle, thus though the health of the individual suffers, they would rather wait until things get bad before going to see a physician.

It is important that disparities in minorities be a focus of discussion on a public health perspective so that the gaps that exist among this group can be bridged through effort on both the part of the individual and government. While disparities might seem like a burden on only a group of people, it truly is a burden on the country at large. Consider

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

an individual who is unable to fend for themselves financially; it is the taxpayer money that goes to pay medical bills, food stamps, section 8 housing and much more. These individuals are not generating revenue for the economy due to the existing disparities, but instead, they drain the economy of its resources.

### **Gaps**

The literature on Physician-patient communication and its effect on health outcomes has not always shown a clear causal relationship between physician style of communication and health outcomes. Although some studies have tried to make that connection, such studies have mainly centered on adults and typically on the effect of communication on patient satisfaction. There is very little studies in the literature that focus on the effects of communication on health outcomes in pediatric care. The few studies that have been conducted on communication in pediatric care had small sample sizes and are generally localized; hence, generalizations could not be made from the findings. Furthermore, the studies have not closely examined the issue of the effects of communication on health outcomes in children. The primary purpose of this study, therefore, is to explore the effect of physician/patient communication on health outcomes in children and adolescents (0-17 yrs.) in the United States. The study will analyze data from The National Survey for Children (NSCH) database. Since the NSCH data is generated through a broad national survey, it makes my study more comprehensive and the findings more generalizable. The study will explore the physician/patient communication pattern across racial/ethnicity lines and the Socio-economic Status of patients, to see if there are differences as the literature suggests.



# PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

Although this study will not explore the relationship between communication and health outcomes, it is anticipated that this study will generate interest towards the on-going research on the effects of communication on health outcomes across racial and economic class, and especially in pediatric care.

## **Research Questions**

The following are the key research questions in this study:

1. Is physician/patient/parent communication different across racial groups?
2. Is physician/patient/parent communication different between children from families of lower SES and children from higher SES?

## **Hypotheses**

In this study what I expect to find is that communication between physician/health providers will be different across both race/ethnicity and SES because of a number of reasons. Language and cultural barriers have always caused problems of understanding. Very few physicians are of minority groups so patients from minority groups, who do not share the same culture and sometimes language, have to seek health care from White physicians. People of lower SES generally have little or no formal education and have little or nothing in common with their physician.

Communication becomes a challenge because of these cultural barriers. Whether intended or not, patients may feel looked down upon while physicians may interpret the timidity of some of these patients as lacking in intelligence. I therefore expect that people from minority groups and people of lower SES will report a more negative

# PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

perception of their interaction with their physician/health providers than whites and people from upper SES.

## **The competencies I wish to demonstrate include:**

1. Apply epidemiological methods to the breadth of settings in situations in a public health practice.
2. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software as appropriate.
3. Develop strategies for improving performance.
4. Develop healthcare management and policy solutions using varying perspectives.

## Analysis

Using the SPSS programming, I will first run a simple crosstab in order to see the relationship between the variables and whether or not those relationships are significant. I will test the hypotheses above by conducting a Chi square test to determine whether there is some form of variation in the way physicians communicate with their patients from different race/ethnicities, as well as children from different Socio-economic backgrounds.

## **Method**

Participants used in this study are derived from available data from the 2016 National Survey of Children's Health (NSCH). The NSCH has been used to collect data since 2003. The NSCH data has several advantages for my study. First, it has a broad

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

national representation. Second, it includes information about the various ways that patients perceive how physicians communicate with them during visits. For example, it includes questions that relate to communication experiences such as: “physician’s ability to carefully listen and give attention to the patient”, “patient in decisions concerning care management”, “provide necessary information for patient care”, making it “easy for parents to raise concern and not be afraid to disagree with physician” , “patients spending enough time with physician” etc. For this study all the missing values are removed and for each of the items operationalized, the valid cases are indicated since not every participant responded to every question.

### **Independent Variables**

In order to operationalize the perceived physician-parent communication, the survey items/questions for the independent variables will be: “physician spend enough time with child”, “physician listens carefully to you”, “physician provide specific information you needed concerning this child”, “physician help you feel like a partner in the child’s care”, “physician make it easy for you to raise concerns or disagree with recommendations for the child’s health care”, “physician discuss with you the range of options to consider for his or her health”, “physician work with you to decide together which health care and treatment choices would be best for this child” “Physician show sensitivity to family customs and values”. All these items have a Likert scale response. “No decision needed”, “Always”; “Usually”; “Sometimes or Never.”

Race/ethnicity is used to measure the perception of race regarding communication with their healthcare providers, and to determine if there is an association between

# PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

race/ethnicity and physician-patient communication. The Federal poverty level was used to determine the income level that was operationalized in order to measure the association between communication pattern and the Socioeconomic Status (SES) of the participants. In addition, participants that have received some form of cash assistance or welfare from government over the course of the study were analyzed as a measure of poverty status.

## **Dependent Variables**

The dependent variable gets the information about the effectiveness of communication as perceived by the patients/parents across the different racial/ethnic groups as well as across SES groups in the study. It has to do with the degree to which providers are able to connect with patients through listening, spending enough time, allowing patients/parents to participate in decision making regarding various options available and being able to select the best possible option for child's treatment and management of care. Survey responses range from "Always"; "Usually", "Sometimes or never" Communication is deemed effective if responses show that responses show that doctors "Always" or "Usually" do those things.

## **Analysis**

I did a simple cross tabulation for communication by race/ethnicity and poverty status to determine if there is a variation in the way that the different groups perceive their communication with doctors and health care providers.

# PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

## **Socio-Demographic Factors**

The Socio-demographic factors considered in this study include gender, race/ethnicity, and the poverty status of the household. The primary language of the household is classified as English or a language other than English. A variable on whether the child was living in a working poor household was used to obtain information on status. A household with a parent or parents employed full-time with income of less than 100% the Federal poverty level (FPL) was defined as a working poor household.

The literature on Physician-patient communication and its effect on health outcomes has not always shown a clear causal relationship between physician style of communication and health outcomes. Although some studies have tried to make that connection, such studies have mainly centered on adults and typically on the effect of communication on patient satisfaction. There is very little studies in the literature that focus on the effects of communication on health outcomes in pediatric care. The few studies that have been conducted on communication in pediatric care had small sample sizes and are generally localized; hence, generalizations could not be made from the findings. Furthermore, the studies have not closely examined the issue of the effects of communication on health outcomes in children. The primary purpose of this study, therefore, is to explore the effect of physician/patient communication on health outcomes in children and adolescents (0-17 yrs.) in the United States. The study will analyze data from The National Survey for Children (NSCH) database. Since the NSCH data is generated through a broad national survey, it makes my study more comprehensive and the findings more generalizable. The study will explore the

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

physician/patient communication pattern across racial/ethnicity line and the Socio-economic Status of patients, to see if there are differences as the literature suggests. Although this study will not explore the relationship between communication and health outcomes, it is anticipated that this study will generate interest towards the on-going research on the effects of communication on health outcomes across racial and economic class, and especially in pediatric care.

The purpose of this study is to explore the physician/patient communication pattern in children and adolescents (0-17) across both racial/ethnicity and Socio-economic Status (SES). In other words, how the physician engages the patient across racial and economic groups through being attentive to them. How the physician/health provider allows the patient to participate in discussions on options regarding treatment and management of care, thereby making them feel like partners in the process. It also has to do with whether patients across racial and economic groups feel about whether the course of treatment is best for their child. The way patients perceive the physician's response determines their perception of the physician's attitude and their response. It could also lead to trust, open communication and consequently a favorable outcome.

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN’S HEALTH

**Results**

	Frequency	Percent %
<b>Hispanic</b>	38961	77.6
<b>White non-Hispanic</b>	3075	6.1
<b>Black non-Hispanic</b>	374	.7
<b>Asian</b>	2769	5.5
<b>Other/Multiracial/non-Hispanic</b>	148	.3
<b>6</b>	1255	2.5
<b>7</b>	3630	7.2
<b>Total</b>	50212	100.0

**Table 1: Race/ethnicity of participants, n=50212**

While the study has N=50212 participants, not everyone answered all of the questions because either some did not have health care visit within the period of the study, or the questions did not apply to their situation. For each of the items operationalized, the valid cases would be lower. Also, about 77.6% (38961) participants indicated they are Hispanic, 6.1% (3075) are non-Hispanic white and only about .7% (374) are non-Hispanic Black. The remaining 15.61% (5033) are comprised of Asian and other Multiracial groups. This study will limit itself to Hispanic, non-Hispanic White and non-Hispanic Black.

Participants in the study include patients that had a doctor or healthcare visit within the past 12 months. The dependent variable in this study is “Doctor communication” while the independent variables are “Race/ethnicity and Socioeconomic status (SES)”. A simple cross tabulation was made to determine how patients/parents perceive communication with their doctor/health care provider using a variety of survey items. The dependent variable was operationalized using the following items: “Doctor spend

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

enough time with child/parent", "Doctor listen carefully to child", "Doctor show sensitivity to family customs and values" "Doctor provide specific information you needed concerning child's health", "Doctor helped child understand health changes that occur at age 18", "Doctor made it easy for you to raise concerns or disagree with recommendations for this child's treatment", "Doctor worked with you to decide which healthcare treatment choices would be best for this child", "Doctor discussed with you the range of options for this child's healthcare treatment". For each participant answered 0. "No healthcare visit within the past 12 Months"; 1. "Always" 2. "Usually" 3. "Sometimes or never" Other items that required a 1. "Yes" and 2. "No" answer includes: "Doctor helped you know how this child will be insured as an adult", "Doctor helped you create a plan to this child's health goals".

In addition to using FPL as income level and therefore, Socio-economic status (SES), an analysis is made of the association between Food insufficiency and communication; as well as between participants that indicated whether or not they are on some form of welfare; or have received assistance from government during the past 12 months for which the study covered.

For the variables on Race/ethnicity and "Doctor listens carefully, (N= 43817), 75.3% (25935) of all Hispanics indicated that doctor always listens carefully while 21.4% (7364) said he "Usually listens carefully". Among Whites the figures are 74.4% (1933) and 20.0% (519) for "Always" and "Usually" respectively. Among non-Hispanic Blacks it is 63.3% (195) and 28.6% (88) while it is 70.8% (1542) and 25.1% (547) for Asians. 68.8% (23764) and 25.8% (8919) of Hispanic said, "Doctor spends enough time"



## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

(N=43292), “always” and “Usually” respectively. For non-Hispanic White, non-Hispanic Black, and Asian the figures are 61.9%; (1613) 25.3% (660), 54.0% (167), 31.7% (98); and 59.1% (1292), 30,7% (672) respectively. 79.7% (27416) and 17.2% (5908) of Hispanic responded that, “Doctor shows sensitivity” (N=43764) “Always” and “Usually” respectively. For non- Hispanic White, non-Hispanic Black, and Asian the figures are 73.1% (1897),20.3 527); 64.8% (199),27.7% (85) and 69.1% (1511),24.9% (545) respectively. “Provide specific information” (N=43684). Hispanic “Always” 77.8% (26727), “Usually” 19.2%. For White Black and Asian the response was 74.8% (1935), 17.7% (509); 62.0% (189), 31.1% (95); 68.7% (1494) and 26.4% (575) respectively. “Makes you feel partner” (N= 43593) Hispanic 77,8% (26682) and 18.3% (6267) for “Always” and “Usually”. For White, Black, and Asian it is 75.4% (1950), 18.3% (474); 66.4% (204), 23.9 (73); 68.6% (1484), 25.4% (549) respectively. “Discuss Options” (N=10933) Hispanic 74.1% (6600), 18.8% (1678) for “Always “and “Usually respectively. For White, Black, and Asian the figures were 71.7% (387), 18.7 (101); 67.1 (55), 19.5 (16) and 70.1 (251), 20.4 (73) respectively. “Make it easy to raise concern” (N=10934) Hispanic 73.0% (6507), 19.6% (1748) said “Always” and “Usually” respectively. For White, Black, -. Hispanic and Asian it is 71.1% (379), 16.0% (93); 66.7% (54), 24.7% (30) and 67.0% (238), 23.7% (84) respectively. “Best for child” (N=10965) Hispanic 75.3% (6728)/18.6% (1663) responded with “Always” and “Usually” respectively. For White, Black, and Asian it is 72.3% (388)/18.0% (96); 64.6% (53)/23.2% (19); 69.1% (248)/24.2% (87) respectively “Worked with child to gain skills” (N-20089) Hispanic 48.8% (7752) met the criteria/34.7% (5504) did not meet criteria. For White, Black, and

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

Asian, it is 56.5% (707)/27.4% (355); 51.3% (78)/32.9% (50); %0.0% (539)/31.5% (340) respectively. "Worked to make Child understand health changes" (20194) Hispanic 23.6% (3757)/ "Yes" 55.9% (8901) "No". For White, Black, and Asian it is 36.7% (461)/45.5% (572); 28.8% (44)/49.0% (75) and 29.6% (321)/47.1% (511) respectively' "Worked hard to create a written plan" Hispanic 6.9% (1099)/93.1% (14874) responded "Yes" and "No" respectively. For White, Black, and Asian it is 13.5% (169)/73.5% (1082); 11.2% (17)/88,2% (135) and 6.1% (66)/93.9% (1023) respectively. "Identify health goals and plan how to meet needs. (Hispanic, 91.4% (993)/8.6% (94) responded "Yes" and "No" respectively. For White, Black, and Asian it is 92.4% (157).7.6% (13); 94.1% (16)/5.9% (1); 89.4% (59)/10.6% (7) respectively. "Doctor discussed how to be insured as he becomes an adult" Hispanic 61.0 % (9733)/39.0% (6222) responded "Yes" and "No" respectively. For White, Black, and Asian it is: 59.1% (738)/40.9% (511); 53.3% (81)/46.7% (71); 62.2% (712)/34.8% (380) respectively. "Discussed how to obtain and keep insurance coverage" Hispanic 6.4% (389)/93.6% (5715) responded "Yes" and "No" respectively. For White, Black, and Asian it is 8.7% (44)/91.3% (460); 8.7% (5)/92.8% (64); 8.3% (20)/91.7% (220) respectively.

The result of the analysis above seems to suggest that overall physician interaction with patients both across racial and economic status is not too bad. To the question doctor listens carefully for example, over 60% of all races/ethnicity responded that doctor: "Always carefully listens" to them during medical visits with over 75% of saying they are always listened to. Doctors/health care providers did not spend did not spend enough time with patients as they listened to them according to the responses. 68.8% of

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

Hispanics, 61.9% of non-Hispanic White and 54.0% of non-Hispanic Blacks said doctors always spend enough time with them. Hispanics rated their providers more positively in all areas except only 48.8% said doctor worked with children to gain skills compared to 56.5% of non-Hispanic Whites and 51.3% of non-Hispanic Blacks. In 23.6% of Hispanics, doctors worked with child to understand health changes that occur at age 18 compared to 36.7% and 28.8% of non-Hispanic Whites and non-Hispanic Blacks Also, only 6.9% of Hispanics said doctor created written plan to meet his/her health goals compared to 13.5% for non-Hispanic Whites and 11.2% of non-Hispanic Black.

What the result shows really is that there are disparities in the way patients/parents perceive communication with the healthcare providers across both racial/ethnic and SES groups. Black patients and those who receive some form of welfare from the government rated their physicians more negatively than Whites or Hispanics. Hispanics rated their physicians better than whites. The overall result shows that Hispanics gave slightly higher ratings than non-Hispanic Whites and non—Hispanic Blacks for all of the items operationalized. Families that spoke English as their primary language have a more favorable response than participants from families that spoke languages other than English. However, even more than race and language, socio-economic status (SES) seem to be a factor that is most associated with ineffective physician-patient communication.

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN’S HEALTH

**Cross Tabulation of Race and “Listen Carefully”**

Race			Always	Usually	Sometimes or never	4	Total
Hispanics		Count	25935	7364	1040	120	34459
		% within what is the child’s race?	75.3%	21.4%	3.0%	0.3%	100.0%
		% within Listen carefully to you	79.4%	77.3%	72.8%	59.1%	78.6%
		% of Total	59.2%	16.8%	2.4%	0.3%	78.6%
White Non-Hispanics		Count	1933	519	113	32	2597
		% within what is the child’s race?	74.4%	20.0%	4.4%	1.2%	100.0%
		% within Listen carefully to you	5.9%	5.4%	7.9%	15.8%	5.9%
		% of Total	4.4%	1.2%	0.3%	0.1%	5.9%
Black Non-Hispanics		Count	195	88	21	4	308
		% within what is the child’s race?	63.3%	28.6%	6.8%	1.3%	100.0%
		% within Listen carefully to you	0.6%	0.9%	1.5%	2.0%	0.7%
		% of Total	0.4%	0.2%	0.0%	0.0%	0.7%
Asian		Count	1542	547	74	16	2179
		% within what is the child’s race?	70.8%	25.1%	3.4%	0.7%	100.0%
		% within Listen carefully to you	4.7%	5.7%	5.2%	7.9%	5.0%
		% of Total	3.5%	1.2%	0.2%	0.0%	5.0%
Other/Multiracial/Non-Hispanic		Count	87	30	1	2	120
		% within what is the child’s race?	72.5%	25.0%	0.8%	1.7%	100.0%
		% within Listen carefully to you	0.3%	0.3%	0.1%	1.0%	0.3%
		% of Total	0.2%	0.1%	0.0%	0.0%	0.3%
6		Count	647	237	49	15	948
		% within what is the child’s race?	68.2%	25.0%	5.2%	1.6%	100.0%
		% within Listen carefully to you	2.0%	2.5%	3.4%	7.4%	2.2%
		% of Total	1.5%	0.5%	0.1%	0.0%	2.2%
7		Count	2314	747	131	14	3206
		% within what is the child’s race?	72.2%	23.3%	4.1%	0.4%	100.0%
		% within Listen carefully to you	7.1%	7.8%	9.2%	6.9%	7.3%
		% of Total	5.3%	1.7%	0.3%	0.0%	7.3%
Total		Count	32653	9532	1429	203	43817
		% within what is the child’s race?	74.5%	21.8%	3.3%	0.5%	100.0%
		% within Listen carefully to you	100.0%	100.0%	100.0%	100.0%	100.0%

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

	<b>% of Total</b>	74.5%	21.8%	3.3%	0.5%	100.0%
--	-------------------	-------	-------	------	------	--------

Table 2 n= 43817

73.3% and 21.4% of Hispanics reported that doctors “always” and “Usually “listens to them and only 3.0% said “Sometimes or never” listens to them. 74.4% of Whites said “Always” and 4.4 said “Sometimes or never” For Blacks, the percentages are 63.3% for “always and 6.8% said “Sometimes or never” listens to them.

The rest of the variables with respect to Race/ethnicity followed a similar pattern.

Participants generally portrayed positive responses with regard to doctor communication. The response in regard to Socioeconomic Status is not very much different. Although the percentage for positive rating in Blacks is a little lower than others, nevertheless, the combined percentages of “always” and “Usually” usually add up to above 80%.

When income level is cross tabulated with “Doctors make it easy to raise concern”, 68.8% (570) of participants on 0-99% FPL responded with “Always “ while 22.1% (194) said “Usually” Those on 100-199%FPL have 67.1% (1062) and 21.1% (334) respectively. Those on 200-399%FPL have 70.6% (2252) and 21.0% (669) said always and usually respectively. Those 400% and Greater have 76.1% (4017) and 18.3% (969) said “Always” and “Usually” respectively. It appears here that the lower the income level the greater the positive response in terms of Doctor communication.

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

**Cross Tabulation of Household Income Level and “Listen Carefully”**

<b>Income Level</b>		<b>Always</b>	<b>Usually</b>	<b>Sometimes or never</b>	<b>4</b>	<b>Total</b>
<b>0-99%FPL</b>	<b>Count</b>	2711	907	222	47	3887
	<b>% within Income level of child's household</b>	69.7%	23.3%	5.7%	1.2%	100.0%
	<b>% within Listen carefully to you</b>	8.3%	9.5%	15.5%	23.2%	8.9%
	<b>% of Total</b>	6.2%	2.1%	0.5%	0.1%	8.9%
<b>100-199% FPL</b>	<b>Count</b>	4703	1570	330	53	6656
	<b>% within Income level of child's household</b>	70.7%	23.6%	5.0%	0.8%	100.0%
	<b>% within Listen carefully to you</b>	14.4%	16.5%	23.1%	26.1%	15.2%
	<b>% of Total</b>	10.7%	3.6%	0.8%	0.1%	15.2%
<b>200-399% FPL</b>	<b>Count</b>	9986	2980	468	63	13497
	<b>% within Income level of child's household</b>	74.0%	22.1%	3.5%	0.5%	100.0%
	<b>% within Listen carefully to you</b>	30.6%	31.3%	32.8%	31.0%	30.8%
	<b>% of Total</b>	22.8%	6.8%	1.1%	0.1%	30.8%
<b>400% FPL or greater</b>	<b>Count</b>	15253	4075	409	40	19777
	<b>% within Income level of child's household</b>	77.1%	20.6%	2.1%	0.2%	100.0%
	<b>% within Listen carefully to you</b>	46.7%	42.8%	28.6%	19.7%	45.1%
	<b>% of Total</b>	34.8%	9.3%	0.9%	0.1%	45.1%
<b>Total</b>	<b>Count</b>	32653	9532	1429	203	43817
	<b>% within Income level of child's household</b>	74.5%	21.8%	3.3%	0.5%	100.0%
	<b>% within Listen carefully to you</b>	100.0%	100.0%	100.0%	100.0%	100.0%
	<b>% of Total</b>	74.5%	21.8%	3.3%	0.5%	100.0%

Table 3 n=43817

In the table above, 69.7% and 5.7% of those on 0\_99%FPL said the Doctor listens to them “Always” and” Sometimes or never”, respectively.

For 100-199FPL, it is 70.7% and 5.0% respectively. 200-399%FPL is 74.0% and 3.5% and those on 400% FPL and greater 77.1% and 2.1% respectively.

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

**Cross Tabulation of Income Level and "Spend Enough Time"**

Income		Always	Usually	Sometimes or never	4	Total
0-99%FPL	Count	2361	1040	391	102	3894
	% within Income level of child's household	60.6%	26.7%	10.0%	2.6%	100.0%
	% within Spend enough time with this child?	8.0%	9.0%	16.6%	20.3%	8.9%
	% of Total	5.4%	2.4%	0.9%	0.2%	8.9%
100-199% FPL	Count	4134	1861	547	133	6675
	% within Income level of child's household	61.9%	27.9%	8.2%	2.0%	100.0%
	% within Spend enough time with this child?	14.0%	16.1%	23.2%	26.5%	15.2%
	% of Total	9.4%	4.2%	1.2%	0.3%	15.2%
200-399% FPL	Count	8976	3642	739	173	13530
	% within Income level of child's household	66.3%	26.9%	5.5%	1.3%	100.0%
	% within Spend enough time with this child?	30.4%	31.5%	31.4%	34.5%	30.8%
	% of Total	20.4%	8.3%	1.7%	0.4%	30.8%
400% FPL or greater	Count	14030	5029	677	94	19830
	% within Income level of child's household	70.8%	25.4%	3.4%	0.5%	100.0%
	% within Spend enough time with this child?	47.6%	43.5%	28.8%	18.7%	45.1%
	% of Total	31.9%	11.4%	1.5%	0.2%	45.1%
Total	Count	29501	11572	2354	502	43929
	% within Income level of child's household	67.2%	26.3%	5.4%	1.1%	100.0%
	% within Spend enough time with this child?	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	67.2%	26.3%	5.4%	1.1%	100.0%

Table 4 n=43929

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

Doctors spend enough time with always, 60.6% of the time and 10.0% sometimes or never for those on 0-99%FPL. Those on 100-199%FPL reported 61.9% for always and 8.2%. From those on 200-399, it is 63.3% and 5.5.% respectively. FPL 400% and greater have 70.8% and 3.4% respectively.

However, when a cross tabulation is made for those who receive some form of cash assistance or welfare from the government, the responses were reversed. Among those who receive cash assistance, 66.0% (593) said doctor always listens carefully to them as opposed to 74.8% (31422) of those who do not receive such assistance; 63.5% (162) of those who receive assistance said doctor discuss options with them always as opposed to 73.8% (7748) for those who do not. In the same pattern whether it is spending enough time or raising concern about doctor recommendations or any other item that is operationalized, those that are on some form of welfare always had a little lower positive response.



PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

**Cross Tabulation of Welfare Assistance and "Spend Enough Time"**

		Always	Usually	Sometimes or never	4	Total
During the past 12 months, even for month did anyone in your family receive cash assistance from a government welfare program?	"Yes" Count	520	256	104	24	904
	% within During the past 12 months, even for month did anyone in your family receive cash assistance from a government welfare program?	57.5%	28.3%	11.5%	2.7%	100.0%
	% within Spend enough time with this child?	1.8%	2.3%	4.5%	5.0%	2.1%
	% of Total	1.2%	0.6%	0.2%	0.1%	2.1%
	"No" Count	28427	11067	2185	453	42132
	% within During the past 12 months, even for month did anyone in your family receive cash assistance from a government welfare program?	67.5%	26.3%	5.2%	1.1%	100.0%
	% within Spend enough time with this child?	98.2%	97.7%	95.5%	95.0%	97.9%
	% of Total	66.1%	25.7%	5.1%	1.1%	97.9%
Total	Count	28947	11323	2289	477	43036
	% within During the past 12 months, even for month did anyone in your family receive cash assistance from a government welfare program?	67.3%	26.3%	5.3%	1.1%	100.0%
	% within Spend enough time with this child?	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	67.3%	26.3%	5.3%	1.1%	100.0%

Table 5 n=43036

As can be seen from the table, those who received any form of welfare from the government reported that 57.5% of the, doctor spends enough time with them but 11.5% of them said he sometimes or never spend enough time with them. 67.5% of those who did not receive help said doctor spends enough time with them while 5.2% said doctor spend time with them sometimes or never.

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

**Cross Tabulation of Welfare Assistance and “Listen Carefully**

		Always	Usually	Sometimes or never	4	Total
During the past 12 months, even for month did anyone in your family receive cash assistance from a government welfare program?	“Yes” Count	593	232	69	5	899
	% within During the past 12 months, even for month did anyone in your family receive cash assistance from a government welfare program?	66.0%	25.8%	7.7%	0.6%	100.0%
	% within Listen carefully to you	1.9%	2.5%	4.9%	2.6%	2.1%
	% of Total	1.4%	0.5%	0.2%	0.0%	2.1%
	“No” Count	31422	9100	1328	185	42035
	% within During the past 12 months, even for month did anyone in your family receive cash assistance from a government welfare program?	74.8%	21.6%	3.2%	0.4%	100.0%
	% within Listen carefully to you	98.1%	97.5%	95.1%	97.4%	97.9%
	% of Total	73.2%	21.2%	3.1%	0.4%	97.9%
Total	Count	32015	9332	1397	190	42934
	% within During the past 12 months, even for month did anyone in your family receive cash assistance from a government welfare program?	74.6%	21.7%	3.3%	0.4%	100.0%
	% within Listen carefully to you	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	74.6%	21.7%	3.3%	0.4%	100.0%

Table 6 n=42934

From the table above, 66.0% of those who received help from the government said the doctor always listens to them but 7.7% said the doctor sometimes or never listens to them compared 74.8% and 3.2% of those who did not.

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

**Cross Tabulation of Welfare Assistance and “Sensitivity”**

		Always	Usually	Sometimes or never	4	Total
During the past 12 months, even for month did anyone in your family receive cash assistance from a government welfare program?	“Yes” Count	610	192	76	18	896
	% within During the past 12 months, even for month did anyone in your family receive cash assistance from a government welfare program?	68.1%	21.4%	8.5%	2.0%	100.0%
	% within Show sensitivity to your families' values and customs	1.8%	2.5%	6.1%	5.6%	2.1%
	% of Total	1.4%	0.4%	0.2%	0.0%	2.1%
	“No” Count	32913	7617	1161	302	41993
	% within During the past 12 months, even for month did anyone in your family receive cash assistance from a government welfare program?	78.4%	18.1%	2.8%	0.7%	100.0%
	% within Show sensitivity to your families' values and customs	98.2%	97.5%	93.9%	94.4%	97.9%
	% of Total	76.7%	17.8%	2.7%	0.7%	97.9%
Total	Count	33523	7809	1237	320	42889
	% within During the past 12 months, even for month did anyone in your family receive cash assistance from a government welfare program?	78.2%	18.2%	2.9%	0.7%	100.0%
	% within Show sensitivity to your families' values and customs	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	78.2%	18.2%	2.9%	0.7%	100.0%

Table 7 n=42889

Regarding sensitivity and family values, 68.1% of those who received assistance said doctors always showed sensitivity while 8.5% said doctors sometimes or never showed sensitivity to culture and family values. It is 78.4% and 2.8% respectively for those that did not receive assistance from the government.

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN’S HEALTH

Communication is also associated with the primary language spoken in the household. 4.9 % (2036) of those who indicated English as their primary language said doctor sometimes or never spend enough time with them as opposed to 16.9% (69). 3.1% (1295) of patients whose primary household language is English said doctors sometimes or never listen to them as opposed to 6.9% (69) of those that do not have English as primary language. Similarly, 2.7% (1108) of those who have English as their primary language said doctor sometimes or never show sensitivity to family customs and values compared to 8.5% (85). This clearly shows that having English as spoken language enhances better doctor physician communication.

**Cross Tabulation of Primary Language and “Spend Enough Time”**

Race		Always	Usually	Sometimes or never	4	Total
English	Count	28070	10792	2036	414	41312
	% within What is the primary language spoken in the home?	67.9%	26.1%	4.9%	1.0%	100.0%
	% within Spend enough time with this child?	95.7%	94.0%	87.3%	82.8%	94.7%
	% of Total	64.3%	24.7%	4.7%	0.9%	94.7%
Other than English	Count	509	279	163	53	1004
	% within What is the primary language spoken in the home?	50.7%	27.8%	16.2%	5.3%	100.0%
	% within Spend enough time with this child?	1.7%	2.4%	7.0%	10.6%	2.3%
	% of Total	1.2%	0.6%	0.4%	0.1%	2.3%
3	Count	747	414	134	33	1328
	% within What is the primary language spoken in the home?	56.3%	31.2%	10.1%	2.5%	100.0%
	% within Spend enough time with this child?	2.5%	3.6%	5.7%	6.6%	3.0%

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

	<b>% of Total</b>	1.7%	0.9%	0.3%	0.1%	3.0%
<b>Total</b>	<b>Count</b>	29326	11485	2333	500	43644
	<b>% within What is the primary language spoken in the home?</b>	67.2%	26.3%	5.3%	1.1%	100.0%
	<b>% within Spend enough time with this child?</b>	100.0%	100.0%	100.0%	100.0%	100.0%
	<b>% of Total</b>	67.2%	26.3%	5.3%	1.1%	100.0%

Table 8 n=43644

68.1% of those who received assistance said doctor always showed sensitivity while 8.5% said doctor sometimes or never showed sensitivity to culture and family values. It is 78.4% and 2.8% respectively for those that did not receive assistance from the government.

**Cross Tabulation of Primary Language and “Listen Carefully”**

<b>Spoken Language</b>		<b>Always</b>	<b>Usually</b>	<b>Sometimes or never</b>	<b>4</b>	<b>Total</b>
<b>English</b>	<b>Count</b>	30873	8870	1295	167	41205
	<b>% within What is the primary language spoken in the home?</b>	74.9%	21.5%	3.1%	0.4%	100.0%
	<b>% within Listen carefully to you</b>	95.1%	93.8%	91.5%	83.1%	94.7%
	<b>% of Total</b>	70.9%	20.4%	3.0%	0.4%	94.7%
<b>Other than English</b>	<b>Count</b>	656	259	69	19	1003
	<b>% within What is the primary language spoken in the home?</b>	65.4%	25.8%	6.9%	1.9%	100.0%
	<b>% within Listen carefully to you</b>	2.0%	2.7%	4.9%	9.5%	2.3%
	<b>% of Total</b>	1.5%	0.6%	0.2%	0.0%	2.3%
<b>3</b>	<b>Count</b>	927	332	52	15	1326
	<b>% within What is the primary language spoken in the home?</b>	69.9%	25.0%	3.9%	1.1%	100.0%
	<b>% within Listen carefully to you</b>	2.9%	3.5%	3.7%	7.5%	3.0%
	<b>% of Total</b>	2.1%	0.8%	0.1%	0.0%	3.0%
<b>Total</b>	<b>Count</b>	32456	9461	1416	201	43534

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

	<b>% within What is the primary language spoken in the home?</b>	74.6%	21.7%	3.3%	0.5%	100.0%
	<b>% within Listen carefully to you</b>	100.0%	100.0%	100.0%	100.0%	100.0%
	<b>% of Total</b>	74.6%	21.7%	3.3%	0.5%	100.0%

Table 9 n=43534

In response to “Doctor listens carefully”, 74.9% and 21.5% of those who have English as their primary language said “Always” and “Usually” respectively. Of those other than English, the percentages are 65.4% and 23.8% respectively.

**Cross Tabulation of Primary Language and  
and “Sensitivity”**

<b>Race</b>		<b>Always</b>	<b>Usually</b>	<b>Sometimes or never</b>	<b>4</b>	<b>Total</b>
<b>English</b>	<b>Count</b>	32452	7320	1108	268	41148
	<b>% within What is the primary language spoken in the home?</b>	78.9%	17.8%	2.7%	0.7%	100.0%
	<b>% within Show sensitivity to your families’ values and customs</b>	95.5%	92.4%	87.6%	81.5%	94.6%
	<b>% of Total</b>	74.6%	16.8%	2.5%	0.6%	94.6%
<b>Other than English</b>	<b>Count</b>	636	247	85	33	1001
	<b>% within What is the primary language spoken in the home?</b>	63.5%	24.7%	8.5%	3.3%	100.0%
	<b>% within Show sensitivity to your families’ values and customs</b>	1.9%	3.1%	6.7%	10.0%	2.3%
	<b>% of Total</b>	1.5%	0.6%	0.2%	0.1%	2.3%
<b>3</b>	<b>Count</b>	880	351	72	28	1331
	<b>% within What is the primary language spoken in the home?</b>	66.1%	26.4%	5.4%	2.1%	100.0%

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

	% within Show sensitivity to your families' values and customs	2.6%	4.4%	5.7%	8.5%	3.1%
	% of Total	2.0%	0.8%	0.2%	0.1%	3.1%
Total	Count	33968	7918	1265	329	43480
	% within What is the primary language spoken in the home?	78.1%	18.2%	2.9%	0.8%	100.0%
	% within Show sensitivity to your families' values and customs	100.0%	100.0%	100.0%	100.0%	100.0%
	% of Total	78.1%	18.2%	2.9%	0.8%	100.0%

Table 10 n=43480

Those from household with English as primary language spoken have 79.9% and 17.8% that said “Doctor show sensitivity to family values and customs” “Always and “Usually” respectively. 63.1% and 26.4% of those from families that do not have English as primary language said “Always and “Usually” respectively.

### Discussion

One of the hypotheses of the study is that differences exist in the way that Doctors and healthcare providers communicate with patients across racial/ethnic as well as across SES. The study suggests that such differences may exist. In this study Hispanic families did better than even non- Hispanic White families. In response to the question “Doctor listen carefully”, Hispanic reported 3.0% (1040) “Sometimes or never” as against 4.4% (113) for non-Hispanic White and 6.8% for non-Hispanic Black families. Similarly, 4.9% (437) of Hispanic reported that doctors sometimes or never decide with parents what treatment is best for the child. It is 7.3% (39) for non-Hispanic White and 9.8% (8) for Black. The pattern repeats itself throughout. For “Doctor make it easy to raise concern”, Hispanic 5.8% (521), White 7.5% (40) and Black 8.6% (7) “Doctors discuss range of options for child’s treatment; Hispanic 5.6% (501) White 6.7% (36) and Black 8.5% (7). For the question “Doctor makes you feel like a partner in the care of this child”, 3.3%

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

(1122) of Hispanic reported “sometimes or never”, compared to 4.4% (114) and 7.9% (24) of white and Black families, respectively.

A possible reason why Hispanics in this instance could have positive responses to communication with their physicians could be that their physicians are better equipped to communicate across and within racial groups. Another reason could be that Hispanics could approach their physicians with lower expectations, thus not surprised by poor communication delivered by their physician.

With regards to income level, the higher the level of poverty the better the communication with doctors. 2.1% (409) of those on 400% and greater PFL responded that doctor sometimes or never “listens carefully”. 3.4% said doctor sometimes or never “spend enough time” The percentage for those on 0-99%FPL is 5.7% (222) and 10% (391) respectively. This finding is hard to explain because earlier studies have consistently reported lack of effective communication between people of lower SES and their health providers. This has resulted in patients rating their physician in a more negative light. One possible reason a physician might be rated poorly could be because of patient's educational attainment and the ability to grasp medical concepts. The higher the level of poverty, the more likely the educational attainment of the population is low. If that is the case, then it is no wonder the survey results show an unexpected outcome. The inability to understand questions posed by surveyors could have led to responses that were unintended. They may have also responded in a manner which they assume they should respond as opposed to what is true for them.



## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

In addition to measuring income level by the FPL, an analysis is also made of those who have been on some form of welfare or have received assistance from the government during the period under study. For instance, to the question, "During the past 12 Months, did anyone in your family receive cash assistance from a government welfare program", 11.5% (104) of those who answered yes said they sometimes or never got to spend enough time with their doctor. 7.7% (69) of those who received assistance said they were sometimes or never carefully listened to compared to 3.2% (1328) of those who did not receive assistance. Also, 8.5% (76) of those who received assistance said they were sometimes or never shown sensitivity to family customs and values compared to 2.8% (1161) of those who did not. 7.0% (63) who received assistance said doctors sometimes or never provided specific information as opposed to 2.7% (1139). This agrees with earlier studies which suggest that physicians give less information, have less supportive conversations and less proficient clinical performance to Blacks, Hispanics, and patients of the lower economic class (Bartlett, Grayson, Levine, Golden and Libber, 1994) Similarly, Hooper et al. (1982); Epstein et al. 1985, Waitzkin, 1985; Roter et al. 1988. For example, in their study Ryn and Burke 2000 report that physicians deliver less information to patients from families of low Socio-economic Status (SES).

The pattern always showed that those who received government assistance reported higher negative ratings in physician-patient communication. This includes several areas such as: doctors discussing a range of options available for treating the child; making parents feel like partners in the care of the child; making it easy for parents to raise

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

concern or disagree with recommendations or what treatment option is best for the child. The result showed that those who received assistance saw their communication with their providers in a more negative light than those who did not. It is assumed here that those that did receive assistance were better off economically than those who did. What the result did not explain is why the analysis shows that the economically disadvantaged groups reported a more positive rating in communication when the poverty level is used as a measure; but showed the opposite when the items used were broken down to whether participants received some form of assistance from the government. People that are on some sort of welfare understand the negative perception that the society has of them. In their interaction with physicians, they may have gone in with minds made up about the physician's perception of them. They could, therefore, be more critical of the physician's interaction with them even if that was not the case.

Families that have English as their primary language have 4.9% (2036) responded that doctor sometimes or never spends enough time with them, 3.1% (1295) said he sometimes or never carefully listens to them and 2.7% (1108) said doctor sometimes or never shows sensitivity to family customs and values. Families that speak another language than English, have 16.2% (103) that reported doctor sometimes or never spend enough time with them, 6.7% (69) said sometimes or never carefully listen to them, while 8.5% (85) said sometimes or never show sensitivity to family customs and values. The glaring difference between the positive and negative ratings by those who have English as spoken language and others respectively could probably be explained

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

by the fact that speaking the same language helps both parties understand each other. Ways in which providers can help bridge this cultural barrier that hinders effective communication is by hiring people from diverse backgrounds and who can effectively relate to patients at a cultural level. Patients might be comfortable speaking English and be able to communicate with their provider. However, certain aspects of illness might only be revealed if there is enough trust and assurances that the provider cares about the overall well-being of the patient. Providing an interpreter as an option (regardless of the patient's comfort level speaking English) might open conversation that would otherwise not happen. Asking for feedback from patients is a possible way of finding out what improvements could be made in the practice.

The results suggest that 16.6% of those whose income was at the 0-99%FPL said doctors sometimes or never spend enough time with their children. This seems to agree with previous studies which report that racial and ethnic minorities report shorter visit time than Whites (Kimberly et al 2013). However, there are other studies that show no difference in the amount of time doctors spend with patients regardless of race or socioeconomic status, yet surveys produce different perceptions and satisfaction levels between races (Johnson et al. 2000; Cooper-Patrick et al. 1999).

This clearly suggests that the amount of time spent may not be the only reason patients perceive and rate their physicians differently. For the physician to understand family customs and values, there must be effective communication which is hindered by language barrier.

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

While overall, racial groups reported favorable responses, (none of the races reported a positive rating of less than 80% when both “Always” and “Usually” are combined) Hispanics seem to score better than non-Hispanic Whites, while non-Hispanic Black scored the lowest. This result seems to agree with a study by Beach et al. titled *“Differences in Patient-Provider Communication for Hispanic Compared to Non-Hispanic White Patients in HIV Care”* which reported that Hispanics rated their visits more positively than whites. However, the difference in negative rating is even more pronounced when the comparison is between patients from different SES backgrounds. Patients that have had some sort of dependence on welfare during the period of the study rated their experiences in a more negative way than those who did not. Previous studies have consistently reported ineffective doctor/patient communication and the negative consequences such as low satisfaction levels, with regard to racial/ethnic minorities compared to non-Hispanic White. Studies suggest that patients rate their providers in a more favorable light if they come from the same race. If this study could prove that Hispanic patients overwhelmingly saw Hispanic doctors, that could partly explain their response. Unfortunately, it cannot. However, studies also show that there are far fewer doctors that are from ethnic minority groups; hence, ethnic minority patients have to see White providers, if they need health care. Another explanation is that they may not really have understood the questions well to give the right response. Finally, it could just be that most Hispanics perceive their communication in a better way than it had been in the past. In this study, it is not known if the low number of participants that non-Hispanic White are (6.1%) and non-Hispanic-Black (.7%) is an

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

explanation for the outcome. The result is clearly skewed and, since the survey is a national one, I am not able to determine why the participants are mainly Hispanic. One explanation could be that many Hispanic saw their health providers more than other races because they had more health issues than the others. The survey included only people that saw their health providers within the "last 12 Months".

The literature reviewed revealed that communication has an effect on outcomes such as satisfaction, trust and sometimes even health outcomes in adults. This study did not make the connection between outcome and communication, but it has been able to establish that there are differences in the way that physicians communicate across racial/ethnic and SES. It can be inferred that whatever negative consequences such differences have on adults can be applied to children and adolescents. Health problems that might become chronic disease later in life could be arrested through better communication that produces better health outcomes.

There are a number of things providers could do to help bridge the gap. Providers could hire people of diverse backgrounds that could put their patients at ease during visits. Such people could be interpreters or people that may share some cultural values with the patient. Whether the patient is comfortable communicating in English or not, the option of having an interpreter should be provided. Health literacy is equally important, and patients should be educated in basic health literacy and be trained on how to ask questions and seek clarification from their health care providers. Doctors could assess the level of understanding of information they provide patients by asking follow-up questions to make sure that the information communicated is understood. That has the

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

potential for extending the time spent with the patient which will in turn assure patients of the interest that the doctor has concerning their well-being. Providers could also engage patients in discussions that might not necessarily be focused on medical conditions, but rather their overall social wellbeing. Such conversation may build trust between physicians and patients.

### **Study Strengths**

One of the strengths of this study is the large number of participants (50,212) in the survey. Since it is a national survey, it is expected that conclusions can be drawn from the results and applied nationally. Furthermore, unlike other studies, my study not only looked at the Federal Poverty Level (FPL) as a determinant of SES, but also a breakdown of those who needed welfare assistance as a result of that poverty. The result suggests that even among the poor, the perception of communication is different between those who accepted help/welfare from the government and those who didn't. Those who needed and received help rated their communication with health providers more poorly than those who didn't.

### **Limitations**

Like many earlier studies, the result from this study is primarily based on patient perception of communication with health providers. There is no clinical observation to corroborate the findings. Just like the study by Beach et al., it is not possible to ascertain the reason why Hispanics rated their communication in a more positive way

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

than even non-Hispanic whites. Studies have shown that where patients and physicians are from the same ethnic group, communication seems to flow better, and patients report better satisfaction. If Hispanics saw only doctors from their ethnic group, that could be an explanation. However, studies show that there are only few doctors from racial/ethnic minority groups (especially for Hispanics). The implication of this is that most racial and ethnic minority patients visit White physicians for their healthcare needs. Could it be that participants filled in what they thought to be an appropriate answer? On the other hand, the responses could be that Hispanics perceive their encounters with health providers in a positive light.

This study, like others before it, shows that language, cultural and sometimes family values can cause serious barriers to effective communication. Responses from this study show that differences in language spoken between physician and patient, and lack of sensitivity to cultural and family values of patients could constitute barriers to effective communication that could affect physician rating by patients.

The study has N=50212, 77.7% (38961) of the participants that are Hispanics with only 6.1% (3075) and 7% (374) non-Hispanic Whites and non-Hispanic Blacks respectively. There is no way to make a reasonable comparison because the numbers are clearly skewed. Even though the rating for non-Hispanic Black agrees with most studies, making generalizations based on this result may not be possible because of the low population of participants in the other groups. 6.1% of non-Hispanic Whites and 7% of non-Hispanic blacks are not significantly large numbers to warrant reasonable generalizations.

# PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

## **Future Studies**

One of the findings of this study is the relative positive ratings of physicians by Hispanic population. I would recommend a replication of the study using data from a different year compare the result. If a similar result is found, it could indicate an improvement in physician/patient communication with regards to Hispanic population. If, however, such finding is not replicated, it could be that the result was as a result of a compounding effect of some sort.

What has not been addressed in this study is the relationship between communication and health outcomes in children and adolescents. As expected, study results show there are differences between the groups under study in their perception of communication with their physician. A future study could focus on whether these differences in perceptions also translate into health outcomes. One can assume, and the literature supports it (at least in adults) that the way patients perceive the nature of communication between them and health providers is very vital in outcomes such as patient satisfaction, trust, adherence to treatment/ and management of care and ultimately health outcomes.

Since chronic diseases tend to begin with choices made earlier in life, it is important that children are given opportunities to make the right choices. Children, especially from racial/ethnic minority groups, suffer the burden of disease just like adults in the same group. Effective communication between patients and health providers can play a role in ensuring that children and their parents understand health problems and are able cooperate with their health care providers to do what is best for the child. Studies



## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

suggest most chronic diseases begin early in life as a result of lifestyle choices. It is through effective communication that physicians are able to establish a good rapport that will enable them to proffer advice that will set their patients on the path of making great healthy choices in what they eat.

Another area of study is the level of health literacy of parents. A question could be included to determine the level of education of the patients to determine if educational level affects the quality of physician/patient communication. The literature reviewed emphasized the importance of health literacy on the part of patients. The more patients know what questions to ask and how to express themselves the better they will be able to engage physicians and get the most out of the medical visit. As a way of intervention, parents could be coached on how to ask questions through watching a simulation on video prior to the visit. Such interventions have yielded positive results in previous studies. This could be in addition to pamphlets that are provided in the doctor's waiting room. For patients that have not gone far in education and have problems reading, people could be employed to specifically sit down with patients and help them go through materials that will help with communication during the medical visit. Patients should be made to understand that their health is of high importance thus, they have the right to ask their physicians questions, and deserve a clear answer.

Another area of intervention is the provision of competent interpreters from diverse backgrounds who share cultural values with the patients. That will help patients feel they are being understood. They can seek clarification about things they don't understand as well as offer information in clearer terms to the physician.

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

The way patients perceive the nature of communication between them, and health providers is very vital in outcomes such as patient satisfaction, trust and ultimately health outcomes. Studies seem to suggest that these areas are affected either positively or negatively in adult patients. Since chronic diseases tend to begin with choices made earlier in life, it is important that children are given opportunities to make the right choices. Children, especially from racial/ethnic minority groups, suffer the burden of disease just like adults in the same group. If effective communication between patients and health providers can play a role in making sure that children are spared from making poor choices that have dire consequences in their adult life, then it is worth exploring. Early intervention could stop the present trend of children developing chronic diseases at a younger age.

### **Competences**

1. Apply epidemiological methods to the breaths of settings in situations in public health practice:

In this study I analyzed data from a National Survey on Children's Health for the year 2016. I did not collect the data and I was not concerned with disease or its spread, but with communication between patients and health providers. Studies suggest a relationship between communication and health outcomes, at least in adults. The study examined how communication is perceived across racial/ethnic groups and SES.

2. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming, and software as appropriate.

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

In order to see if there are differences in communication patterns across the racial and SES groups, simple cross tabulations were made using the SPSS statistical analysis. I then interpreted the output from the SPSS in order to determine if differences do exist in communication patterns across the various groups.

### 3. Develop strategies for improving performance

- Physician/health providers have to be aware of their own biases since there is a symmetry of information between patients and physicians. They should be sensitive to the fact patients are at a disadvantage because they do not possess the knowledge the physician/health providers have. Patients may come to the doctor's office with some degree of apprehension and what he/she wants is understanding and empathy. If patients do not find that in a physician/health provider, the encounter will be less than desirable. Patients dissatisfaction with the visit leads negative rating of physician/health provider
- Doctors should be able appreciate the fact their patients come from diverse backgrounds. This means that not every patient understands or even agrees with the way the physician communicates information because of differences in cultural norms and values. Keeping silent in the doctor's office may not necessarily be because the patient is dumb, but he or she might have come from a culture that defers to authority. They speak only when they are spoken to and even then, keep their answers short. Understanding that will help the physician in the way he/she asks questions of the patient.

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

- Language barrier not only in terms of language but the medical terminologies used during the encounter. Rather than use medical terminologies that make no sense to the patient, physicians/health [providers should use simple, day to day language that makes the follow of information smooth and understandable. For instance, in discussing the anatomy, a picture in the doctor's office can be referred to so as to enable patients know exactly where the problem is
- One major problem that contributes to patient dissatisfaction is the amount of time they spend with patients. Time is usually too short, and doctors appear to be in a hurry to get to the next patient. This may not be the doctor's fault entirely though, except where the doctor has his/her own practice. In general, physicians are required to see X number of patients within a stipulated period so the pressure on them is great. Administrators should give adequate time for physicians to get to the heart of their patient's problems. While that may mean seeing a lesser number of patients per day, it will enable physicians to provide quality care that could result in better health outcomes.

#### 4. Develop Healthcare Management and Policy Solutions Using Varying Perspective

- One area of policy change that I suggest is that providers need to ensure that there is diversity in the workplace in terms of employment. Patients who encounter people that they can relate with, are most likely to be more open and cooperative in their dialogue/conversation with the physician.

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

- I suggest that health care providers should improve personnel training in areas of communication and sensitivity to cultural values and norms. That could mean a mandatory class in cultural competence for health care workers.
- Where there is a physician-patient language barrier, health providers could enhance communication through the use of interpreters. Increasing the number of primary healthcare providers so that patients can have more time with their health care providers could also be an option to improve communication effectiveness.

### **Conclusion**

This study has been about physician-patient communication in pediatric care by race and socio-economic status. The data for the study was primarily from the 2016 National Survey of Children's Health (NSCH). The result shows that there are differences in perception of communication between doctors and patients across racial/ethnic and socio-economic status (SES) groups. Another important finding of the study is that Hispanics rate communication with their physician even more positively than non-Hispanic Whites. Third, this study shows that non-Hispanic Blacks rated their communication with physicians negatively. The data also show that out of the three racial groups, non-Hispanic Blacks by far rated their communication with physicians in a more negative light than the other groups. Fourth, the study also found that in terms of socio-economic status, participants that received welfare/assistance from the government rated their communication with physicians negatively than those who did

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

not receive any assistance. This suggests that socio-economic status affects physician-patient communication even more than race and ethnicity. Finally, this study found that households that use English as their primary language rated their communication with physicians more positively than households that spoke other languages.

# PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

## References

1. Adler, S. C., Trunnell, E.P., White Jr, G. L., Lyon, J. L., Reading, J. P., Samore, M. H., & Magill, M.K. (2005). Reducing parental demand for antibiotics by promoting communication skills. *American Journal of Health Education* 36(3), 132-139. doi: [10.1080/19325037.2005.10608174](https://doi.org/10.1080/19325037.2005.10608174)
2. Annandale E.C. (1987) Dimensions of patient control in a free-standing birth center. *Social Science Medicine*. 25 (11), 1235-1248. doi: [10.1016/0277-9536\(87\)90371-6](https://doi.org/10.1016/0277-9536(87)90371-6)
3. Beck, R. S., Dangbridge, R., & Sloane, P. D. (2002). Physician-patient communication in the primary care office: A systematic review. *The Journal of the American Board of Family Practice*. 15(1) 25-38.
4. Chandra, S., Mohammadnezhad, M., & Ward, P. (20018). Trust and Communication in a Doctor-Patient Relationship: A Literature Review. *Journal of Healthcare Communications*. 3 (36). doi: [https://.10.4172/2472.1654/100146](https://doi.org/10.4172/2472.1654/100146)
5. Clayman, M.L, Pandit, A.U., Bergeron, A.R., Cameron, K. A., Ross, E., & Wolf, M. S. (2010). Ask, understand, remember: a brief measure of patient communication self-efficacy within clinical encounters. *Journal of Health Communication*. 15(suppl. 2) 72-79. Doi: [10.1080/10810730.2010.500349](https://doi.org/10.1080/10810730.2010.500349)
6. Cooper-Patrick, L., Gallio, J. J., Gonzales, J.J., Vu, H.T., Powe, N.R., Nelson, C., & Ford, D.E. (1999). Race, gender, and partnership in the patient-physician relationship. *Journal of American Medical Association*. 282(6):583–589. doi: 10.1001/jama.282.6.583.
7. Cooper, L.A., & Roter, D. L. (2013). *Patient-provider communication: The effects of race and ethnicity on process and outcomes of Healthcare in Unequal Treatment: Confronting Racial and Ethnic Disparities*. Washington DC. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK2203541>
8. Martin, K.D., Roter, D.L., Beach, M C. Carson, K.A., & Cooper, L.A. (2013) Physician communication behavior and trust among black and white patients with hypertension. *Medical Care*, 51(2), 151-157. doi:10.1097/MLR.0b013e31827632a2
9. Treadwell-Deering, D. (2015). Communicating with pediatric patients and their families: the Texas children's hospital guide for physicians, nurses and other healthcare professionals. Houston, TX. Retrieved from <https://www.bcm.edu/sites/default/files/2015/13/pcg-v21.pdf>
10. Duffy, F.D., Gordon, G.H., Whelan, G., Cole-Kelly, K., & Frankel, R. (2004) Assessing Competence in Communication and Interpersonal

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

- Skills: The Kalamazoo II Report. *Journal of the Association of American Medical Colleges* 79(6), 495-507
11. Epstein, R. M., Franks P., Fiscella, K., Shields, C. G., Meldrum, S.C., Kravitz. R. L., & Duberstein, P.R. (2005) Measuring patient-centered communication in patient-physician consultations: Theoretical and practical issues. *Social Science & Medicine* 61(7), 1516-1528.
  12. Epstein, R. M., Franks, P., Shields, C. G., Meldrum, S. C., Miller, K. N., Campbell, T.L., & Fiscella, K. (2005) Patient-centered communication and diagnostic testing. *Annals of Family Medicine* 3(5), 415-421. Doi: <https://doi.org/10.1370/afm.348>
  13. Frances, V., Korsch, B. M., Morris, M. J. (1969) Gaps in doctor-patient interaction: Parents' response to medical advice. *New England Journal of Medicine* 280(10), 535—540. DOI: [10.1056/NEJM196903062801004](https://doi.org/10.1056/NEJM196903062801004)
  - Frankel, R., Beckman, H. Evaluating the Patients Primary Problems. In eds). Stewart M., Roter D, (Communicating with Medical Patients". Sage Publications. Newbury Park Calif 1989 86-98
  14. Freemon, B., Negrete, V.F., Davis, M., Korsch, B. M. (1971). Gaps in doctor-patient communication: doctor-patient interaction analysis. *Pediatrics Research* 5, 298-311. doi.org/10.1203/00006450-197107000-00003
  15. Hall, J.A., Roter, D.L., Katz, N.R. (1988). Meta-analysis of correlates of provider behavior in medical encounters. *Medical Care*, 26(7), 657-675.
  16. Haug, M., Lavin, B. (1983) Consumerism in Medicine: Challenging Physician Authority. Beverly Hills CA.: Sage Publications.
  17. Hibbard J.H., & Greene J. (2013). What the evidence shows about patient activation: Better health outcomes and care experiences, fewer data on costs. *Health Affairs*, 32(2), 207-214. doi: 10.1377/hlthaff.2012.1061.
  18. Ishikiwa, H., Hashimoto, H., & Kiuchi, T. (2013). The evolving concept of "patient-centeredness" in patient physician communication research. *Social Science and Medicine* 96, 147-153. [doi.org/10.1016/j.socscimed.2013.07.026](https://doi.org/10.1016/j.socscimed.2013.07.026)
  19. Ha, J.F., N., & Longenecker, N. (2010), Doctor-patient communication: A review. *Ochsner Journal* 10(1), 38-43. Retrieved from: <http://www.ochsnerjournal.org/content/ochjnl/10/1/38.full.pdf>.
  20. Johnson, R.L., Roter, D., Powe, N.R., & Cooper, L.A. (2004) Patient race/ethnicity and quality of patient-physician communication during medical visits. *American Journal of Public Health* 94(12), 2084-2090. Doi:10.2015/AJPH.94.12.2084
  21. Kaplan, S.H., Greenleaf, S., & Ware, J.E. (1989). Assessing the effect of physician-patient interaction on outcomes of chronic disease. *Medical Care* 27(3), 110-127. Retrieved from: <http://www.jstor.org/stable/3765658>



PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

22. Kemper, K. J., Foy, J. M., Wissow, L., & Shore, S. (2008). Enhancing communication skills for pediatric visits using video demonstrations. *BMC Medical Education*, 8(8). doi:10.1186/1472-6920-8-8
23. Kodjebacheva, G. D., Leobardo F. Estrada & Sham Parker (2017). Family-healthcare provider communication and reported health among children and adolescents in the United States: results from the national survey of children's health. *California Journal of Health Promotion* 15(1), 46-55).doi: <https://doi.org/10.32398/cjhp.v15j1.1888>
24. Kodjebacheva, G. D., Sabo, T., & Xiong, J. (2016). Interventions to improve child-parent-medical encounter: A systematic review. *Social Science & Medicine* 166 120-127. Doi: <https://doi.1016/j.socscimed.2016.08.003>
25. Korsch, B.M., Gozzi, E.K., & Francis, V. (1968). Gaps in doctor-patient communication. 1. Doctor- patient interaction and patient satisfaction. *Pediatrics* 42(5), 855-871.
26. Labrie, N., & Schultz, P.J., (2014). Does argumentation matter? A systematic literature review on the role of argumentation in a doctor-patient communication. *Health Communication* 29(10), 996-1008. DOI: [10.1080/10410236.2013.829018](https://doi.org/10.1080/10410236.2013.829018)
27. Lambert, V., Glacken, M., & McCarron, M. (2011). Communication between children and health professionals in a child hospital setting: a child transitional communication model. *Journal of Advanced Nursing* 67(3), 569-582. DOI: [10.1111/j.1365-2648.2010.05511.x](https://doi.org/10.1111/j.1365-2648.2010.05511.x)
28. Ladak, L.A., Premji, S.S., Amanullah, M.M., Haque, A., Ajani, K., & Siddiqui, F.J. (2013) Family-centered rounds in Pakistani pediatric intensive care settings: Non-randomized pre- and post-study design. *International Journal of Nursing Studies* 50(6). Doi: <https://dx.doi.org/10.1016/j.ijnurstu.2012.05.099>
29. Lewis, C.C., Pantell, R. H., & Sharp, L., (1991). Increasing patient knowledge, satisfaction and involvement: randomized trial of a communication intervention. *Pediatrics* 88(2), 351-358.
30. Levit, L., Balogh, E., Nass, S., Ganz, P. A. (2013). *Delivering High Quality Cancer Care: Charting a New Course for a System in Crisis*. Board on Health Care services; Institute of Medicine. Washington (DC). National Academies Press. Retrieved from [https://commed.vcu.edu/Chronic\\_Disease/Cancers/2014/CancerCare2013\\_IOM.pdf](https://commed.vcu.edu/Chronic_Disease/Cancers/2014/CancerCare2013_IOM.pdf)
31. Little P., Everitt, H., Williamson, I., Warner, G., Moore, M., Gould, C., Ferrier, K., & Payne, S. (2001) Observational Study of effect of Patient-centeredness and positive approach to outcomes of general practice consultations. *BMJ* 323(7318), 908-911. DOI: [10.1136/bmj.323.7318.908](https://doi.org/10.1136/bmj.323.7318.908)

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

32. Matusitz, J., & Spear, J. (2014). Effective doctor-patient communication: an updated examination. *Social Work in Public Health, 29*(3) 252-266. DOI: [10.1080/19371918.2013.776416](https://doi.org/10.1080/19371918.2013.776416)
33. Nordholm, L. A. (1980). Beautiful patients are good patients: evidence for physical attractiveness stereotype in first impressions of patients. *Social Science & Medicine. Part A: Medical Psychology & Medical Sociology 14*(1), 81-83. [https://doi.org/10.1016/S0271-7123\(80\)90822-6](https://doi.org/10.1016/S0271-7123(80)90822-6).
34. Nobile, C., & Drotar, D. (2003). Communication in Pediatric care: Implications and Recommendations. *Journal of Developmental & Behavioral Pediatrics 24*(4), 279-290.
35. Ong, L. M. L, De Haes, J.C.J., M., Hoos, A.M. & Lammes, F.B. (1995). Doctor- patient communication: a review of the literature. *Social Science and Medicine. 40*(7), 903-918. Retrieved from [https://doi.org/10.1016/0277-9536\(94\)00155-M](https://doi.org/10.1016/0277-9536(94)00155-M)
36. Price, J.H., Desmond, S.M., Krol, R. A., Snyder, F. F., O'Connell, J. K. (1987). Family practice physician's beliefs, attitudes, and practices regarding obesity. *American Journal of Preventive Medicine 3*(6), 33-45.
37. Ross, C.E., Mirowsky, J., & Duff, R.S. (1982). Physician characteristics and client satisfaction in two types of medical practice. *Journal of Health and Social Behavior 23*(4), 317-329. Retrieved from <https://www.jstor.org/stable/2136490>
38. Roter D. The enduring and evolving nature of the patient-physician relationship. *Patient Education and Counseling 39*(1), 5-15. DOI: [10.1016/s0738-3991\(99\)00086-5](https://doi.org/10.1016/s0738-3991(99)00086-5)
39. Roter, D. L., & Hall, J. A. (1992). *Doctors talking with patients/patients talking with doctors: Improving communication in medical visits*. Auburn House/Greenwood Publishing Group.
40. Selden, C. R., Zorn, M., Ratzan, S., & Parker, R. M. (2000). Health Literacy. In Current bibliographies in medicine. Bethesda, MD' National Library of Medicine.
41. Shorter, Edward. (1985) *Bedside Manners: the Troubled History of Doctors and Patients*. New York: Simon and Schuster.
42. Smedley, B.D., Stith, A.Y., Nelson, A.R. (2000) *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. Washington DC: National Academy Press.
43. Starfield, B., Wray, C., Hess, K., Gross, R., Birk, P.S., & D'Lugoff, B. C. (1981). The influence of patient- practitioner agreement on outcome of care. *American Journal of Public Health 71*(2), 127-131. doi: [10.2105/ajph.71.2.127](https://doi.org/10.2105/ajph.71.2.127).
44. Stewart, M.A. (1995) Effective physician-patient communication and health outcomes: a review. *Canadian Medical Association Journal 152*(9), 1423-1433.

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

45. Stewart, M., Brown, J. B., Donner, A., McWhinney, I. R., Oates, J., Weston, W. & Jordan, J. (2000). The Impact of patient -centered care on outcomes. *The Journal of Family Practice* 796-804 [PubMed] [Google Scholar]
46. Stewart, M. A., McWhinney, I. R., & Buck, C. W. (1979). The doctor/patient relationship and its effect upon outcome. *The Journal of the Royal College of General Practitioners*, 29(199), 77–81.
47. Stewart, M.B., Brown, J. B., Boon H., Galadja, J., Meredith, L., & Sangster M. (1999). Evidence on patient-doctor communication. *Cancer Prevention and Control*. <https://pubmed.ncbi.nlm.nih.gov/10474749>
48. Nam, S., Chesla, C., Stotts, N. A., Kroon, L., & Janson, S. L. (2012). Barriers to diabetic management: Patient and provider factors. *Diabetes Research and Clinical Practice* 93(1), 1-9. doi: 10.1016/j.diabetes.2011.02.002
49. Pandit, A.U., Bailey, S. C., Curtis, L.M., Seligman, H.K., Davies, T.C., Parker, R. M., Schillinger, D., DeWalt, D., Fleming, D., Mohr, D. C., & Wolf, M. F.(2014) Disease related distress, self-care and clinical outcomes among low-income patients with diabetes. *Journal of Epidemiology and Community Health* 68(6), 557-564. doi:10.111136/jech-2013-203063
50. Pantell, R.H., Stewart, T.J., Dias, J.K., Wells, P., & Ross AW. (1982) Physician Communication with Children and parents. *Pediatrics* 70(3), 396-402.
51. Pearson, S.D., Raeke, L.H. (2000). Patients trust in physicians: many theories, few measures and little data. *Journal of General Internal Medicine* 15(7), 509-513. doi:10.1046/j.1525-1497.2000.11002.x
52. Rauscher, E.A., Hesse, C., Campbell-Salome, G. (2020) Applying family communication patterns to patient-provider communication: examining perceptions of patient involvement, satisfaction, and medical adherence. *Journal of Health Communication* 25(2), 180-189. DOI: [10.1080/10810730.2020.1728596](https://doi.org/10.1080/10810730.2020.1728596)
53. Sarkar, U., Piette, J.D., Gonzales R., Lessler, D., Chew, L.D., Reilly, B., Johnson, J., Brunt, M., Huang, J., Regenstein, M., & Schillinger, D. (2008) Preferences for self-management support: findings from a survey of diabetes patients in safety-net health systems. *Patient Education and Counseling* 70(1), 102-110. doi: 10.1016/j.pec.2007.09.008.
54. Street, R.L. Jr. (1991). Physicians Communication and Parents evaluation of Pediatric Consultations. *Medical Care* 29(11), 1146-1152. Doi: 10.2307/3765744
55. Travaline, J. M., Ruchinskas, R., & D'Alonzo, G.E. (2005) Patient-Physician Communication: Why and How 2005 *The Journal of American Osteopathic Association* 105(1), 13-18

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

56. Tate K., Meeuwesen, L. (2001). Doctor-Parent-child communication. A review of the literature. *Social Science Medicine*. 52(6),839-851. doi.org/10.1016/S0277-9536(00)00193-3.
57. van Ryn, M., & Burke, J. K. (2000). The effect of race and socio-economic status on physicians' perception of patients. *Social Science & Medicine* 50(6), 813-828. https://doi.org/10.1016/S0277-9536(99)00338-X
58. White, R. O., Chakkalakal, R. J., Presley, C. A., Bian, A., Schildcrout J. S., Wallston, K. A., Barto, S., Kripalani, S., & Rothman, R. Perceptions of provider communication among vulnerable patients with diabetes: influences of medical mistrust and health literacy. *Journal of Health Communication* 21(2): 127-134. Doi:10.1080/10810730.2016.1207116
59. Zolnierek, K.B., Dimatteo, M.R. (2009) Physician communication and patient adherence to treatment: a meta-analysis. *Medical Care* 47(8) 826-834. doi:10.1097/MLR/ObO13e31819a5acc

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

**APPENDIX**

**DEMOGRAPHIC FACTORS**

What is this child's race?

1. Hispanic
2. White non-Hispanic
3. Black non-Hispanic
4. Asian
5. Other/Multiracial non-Hispanic

What is this child's sex?

1. Male
2. Female

What is the primary language spoken in the home?

1. English
2. Other than English

What is the income level Federal poverty level (FPL)?

1. 0-99% FPL
2. 100-199% FPL
3. 200-399% FPL
4. 400% FPL or greater

**COMMUNICATION PATTERN**

DURING THE PAST 12 MONTHS, how often did this child's doctor or other health care providers

- Spend enough time with the child?
  0. Did not have healthcare visit in the past 12 months
  1. Always
  2. Usually
  3. Sometimes or never
  
- Doctor listen carefully to you?
  0. Did not have health care visit in the past 12 months
  1. Always
  2. Usually
  3. Sometimes or never

## PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

- Doctor showed sensitivity to your families values and customs?
  - 0. Did not have health care visit in the past 12 months
  - 1. Always
  - 2. Usually
  - 3. Sometimes or never
  
- Doctor provide specific information you needed concerning this child.
  - 0. Did not have health care visit in the past 12 months
  - 1. Always
  - 2. Usually
  - 3. Sometimes or never
  
- Help you feel like a partner in this child's care
  - 0. Did not have health care visit in the last 12 months
  - 1. Always
  - 2. Usually
  - 3. Sometimes or never
  
- Discuss with you the range of options to consider for his or her health care or treatment
  - 0. No decision needed
  - 1. Always
  - 2. Usually
  - 3. Sometimes or never
  
- Doctor made it easy for you to raise concern or disagree with recommendations for this child's health care
  - 0. No decision needed
  - 1. Always
  - 2. Usually
  - 3. Sometimes or never
  
- Work with you to decide together which health care treatment choices would be best for child
  - 0. No decision needed
  - 1. Always
  - 2. Usually
  - 3. Sometimes or never

PHYSICIAN/PATIENT COMMUNICATION IN PEDIATRIC CARE BY RACE AND SOCIOECONOMIC STATUS: AN ANALYSIS OF THE 2016 NATIONAL SURVEY OF CHILDREN'S HEALTH

During the past 12 months, even for one month, did anyone in your family receive:

- Cash assistance from government welfare program
  1. Yes
  2. No
  
- Food stamps or supplemental Nutrition Assistance Program benefits (SNAP)?
  1. Yes
  2. No
  
- Free or reduced-cost breakfast or lunches at school?
  1. Yes
  2. No
  - 3.
  
- Benefits from Women, Infants and Children's (WIC) program?
  1. Yes
  2. No