Cleveland Clinic

Center for Value-Based Care Research

Value Added

CVCR Newsletter 2020

October 2020

Welcome to this quarter's issue of *Value Added.*

The Center for Value-Based Care Research (CVCR) conducts novel research on interventions that improve value in healthcare. With a mission of making quality healthcare possible for all Americans by conducting research to identify value in healthcare, CVCR seeks to deliver the right care, at the right time, to the right patients, at lower costs.

In this issue, we report on two of our recent research initiatives. Dr. Katie Martinez discusses her work on evaluating the satisfaction of patients based on physician race/ethnicity and how she is using what is already known to understand physician ratings. Following this, Dr. Ardeshir Hashmi discusses the ongoing primary care initiative, *Patient Priorities Care* (PPC). Launched within Cleveland Clinic Community Care in August of this year, Dr. Hashmi's initiative identifies a patient's unique health priorities and goals, and uses them to maximize the benefit from primary care while minimizing the burden of treatment. This is a collaborative project with Yale School of Medicine and is following a successful pilot study conducted by their Department of Medicine between 2017 and 2018. We hope you enjoy this quarter's newsletter.

Featured Publication

Impact of the COVID-19 Pandemic on Healthcare Workers' Risk of Infection and Outcomes in a Large, Integrated Health System.

Misra-Hebert AD, Jehi L, Ji X, Nowacki AS, Gordon S, Terpeluk P, Chung MK, Mehra R, Dell KM, Pennell N, Hamilton A, Milinovich A, Kattan MW, Young JB.

Journal of General Internal Medicine

CVCR CELEBRATIONS

Agency for Healthcare Research and Quality Grant Awarded

Congratulations to Drs. Michael Rothberg and Arthur McCullough, who recently received an R01 grant from AHRQ for their project "Modeling the Disease Burden and Cost-Effectiveness of Screening and Treatment for Non-Alcoholic Fatty Liver Disease in Type 2 Diabetes Patients." This project was awarded $1.9 million in funding over a five-year period. CVCR's Dr. Phuc Le will perform the modeling. Congratulations on receiving this award!

Student receives G.E.R.M. Award

Congratulations to CVCR's medical student, Zheyi Han ('21), for receiving a Grants for Emerging Researcher/Clinician Mentorship Program (G.E.R.M.) award from the Infectious Diseases Society of America Foundation and HIV Medicine Association for his thesis project, entitled "Impact of Clostridioides difficile Infection on Patient Quality of Life." Congratulations also to Zheyi's thesis mentor, Dr. Abhishek Deshpande. This award includes a complimentary IDSA/HIVMA one-year membership along with a cash prize. CVCR looks forward to Zheyi's future achievements in medicine!

Featured Study: Association Between Physician Race/Ethnicity and Patient Satisfaction

What led you to investigate patient satisfaction based on physician race/ethnicity?

There have been some recent studies suggesting non-white physicians are subjected to racist behavior by patients, so that was the genesis of my interest in this area. But measuring racially biased behavior by patients is difficult, because these interactions are often subtle and not systematically recorded. In thinking about how we could possibly measure this, we thought patient satisfaction ratings might be one way we could pick up racial bias from patients. There have been a couple prior studies on this that found no difference in patient satisfaction ratings by physician race/ethnicity, but these studies had some important limitations that left this question unanswered.

How did you define patient-perceived physician race/ethnicity?

It's understood that the most accurate measure of anyone's race/ethnicity is self-report, which is how prior studies on patient satisfaction have measured it. But we weren't interested in what was accurate, we were interested in what patients perceived physicians' race/ethnicity to be, because that is what their biases are based on. To do this, we assigned four independent reviewers of varying race/ethnicities to assign a perceived race/ethnicity to each physician based on their name and publicly available photo. In the end we were able to classify most physicians into the following categories: White American, Black American, East Asian, South Asian, Middle Eastern, and Hispanic. These categorizations are much more specific than prior studies, and allowed us to tease out how patients feel about specific groups of non-white physicians, which had not been done previously.

The Association Between Physician Race/Ethnicity and Patient Satisfaction: an Exploration in Direct to Consumer Telemedicine

Kathryn Martinez PhD, Kaitlyn Keenan MD, Radhika Rastogi MD, Joud Roufael MPH, Adrianne Fletcher PhD, MSSA, LCSW, Mark Rood MD, Michael Rothberg, MD

Journal of General Internal Medicine

Since patient satisfaction ratings are usually not a normal distribution, clustering at higher ratings, how did you account for the significance of a lower rating?

In general, people like to rate things highly – be it a hotel stay, an Uber trip, or a medical encounter. As a result, patient satisfaction ratings generally skew high. Indeed, the overwhelming majority of physicians in our study had an overall patient satisfaction rating between 4 and 5, with 5 being the highest. This is why most studies of patient satisfaction split this measure to look at encounters that resulted in a 5 star versus less than 5 star rating. We also did this. However, we were interested in another construct, which is almost never measured: patient dissatisfaction. Given that most people rate their care highly, giving a physician something like a 2 star rating doesn't just reflect low satisfaction, but active dissatisfaction. To capture these differences by physician race/ethnicity, we included a second measure of dissatisfaction, where we split the satisfaction scale at 2 or fewer stars versus 3 or higher.

How did you account for potential differences in quality of care, which may have influenced patient satisfaction ratings?

Our prior work in telemedicine has consistently demonstrated that the number one driver of patient satisfaction is whether they receive a prescription. This appears to be what patients are using to assess the quality of their telemedicine visit. In order to account for patient-perceived quality of the visit, we controlled for whether patients received a prescription or not. This helped us tease out what part of the satisfaction score was based on physician race/ethnicity versus getting a prescription.

What did you find?

Overall, patients rated physicians highly. This was not surprising based on our understanding of patient satisfaction scores more generally, as well as our prior work in the area. For the patient satisfaction measure, we found patients were less likely to say they were satisfied with care provided by South Asian or East Asian physicians compared to White American physicians. For the dissatisfaction measure, we found patients were more likely to report being dissatisfied with encounters with Black American, South Asian, and East Asian physicians compared to White American physicians. As we accounted for the number one predictor of satisfaction – prescription receipt – these differences in satisfaction and dissatisfaction appear to be motivated, at least partially, by physician race/ethnicity.

Overall, what is the biggest impact from your results and how could the results impact patient care on a long-term scale?

We know from our prior work that patient satisfaction as a measure has some problems – patients will rate care highly as long as they get what they want, even if it's not medically necessary (or, in some cases even harmful). This adds to those findings to show that some groups of non-White American physicians are being penalized by patient satisfaction measures that not reflect the quality of the care they provide but rather the color of their skin. The takeaway message here is twofold. First, patient satisfaction measures need to be de-emphasized with respect to their influence on physician compensation or any other work-related outcome. Second, when we only concentrate on satisfaction, we fail to understand how patient dissatisfaction may harm non-White American physicians. Even a handful of 1 or 2 star ratings can pull a physician's overall rating down. Moreover, it may be the dissatisfied patients are the ones who most contribute to physician loss of job satisfaction and burnout. In order to maintain and grow a diverse and thriving workforce, we need to be cognizant of the many sources of patient racial and ethnic bias. Satisfaction measures appear to be one.

Look for future publications from Dr. Martinez related to measures of satisfaction in medicine and telemedicine.

Ongoing Work: Patient Priorities Care

What problem is the *Patient Priorities Care (PPC)* study trying to address?

Older adults face multiple health conditions that require a great deal of time, money, and energy. There is rarely a "one size fits all" regimen when implementing health care in the older population. This study, which focuses on the older primary care population, will analyze physician-patient conversations and observe how much more effective treatment is, and is perceived to be, when the patient's priorities are identified before treatment.

How does the *Patient Priorities Care* approach identify what matters most to a patient?

The PPC approach helps physician identify the patient's values in four key areas:

1. **Connection to others: the patient's relationships with family and friends, as well as their spiritual connection.**
2. **Enjoyment of life: the activities (recreation, productivity, personal growth) that bring pleasure to the patient.**
3. **Ability to function: the patient's feelings regarding dignity and independence.**
4. **Management of their own health: the patient's expectations for symptom management and quality of life.**

How does this process work?

The process includes three parts. First, identify the patient's care preferences. Second, use those preferences to decide if a treatment is harmful or burdensome, or is not taking the patient's goals into account. Lastly, ensure that the care is aligned with the patient's values and priorities.

Is there research that supports this as a useful method of creating treatment plans?

What is known so far is that clinicians and patients appreciate facilitation of care prior to appointments. Clinicians prefer focused visits, consensus between the primary care provider and specialists, and improved relationships. According to a JAMA Internal Medicine article by Dr. Mary Tinneti, collaborator with CCF's PPC initiative and primary investigator of Yale Department of Medicine's PPC Initiative conducted between 2017-2018, PPC participants reported a five point decrease on the Treatment Burden Questionnaire (TBQ), were less likely have self-management tasks, and were less likely to receive diagnostic tests than those who received usual care (UC) [1]. Patients who received PPC facilitation were also more likely to be taken off medications. Based on these results, PPC facilitation appears to reduce treatment burden and unwanted care[1]. Patients enjoyed enhanced communication, a more personalized facilitation process, increased understanding of their health and healthcare tasks, and an increased ability to identify goals and to change them as needed. .

How can this study be incorporated into an older adult's primary care regimen?

Finding goals that are realistic and specific is the most important aspect of identifying and implementing the patient's priorities. For example, a patient's general goal may be to live a healthier life, with a more specific goal of being able to watch their grandchildren after school two to three times per week. In order to clarify which of a patent's goals are realistic, the doctor and patient must first identify which aspects of care facilitate or inhibit patients from doing what they value most.

[1] *Association of Patient Priorities–Aligned Decision-Making With Patient Outcomes and Ambulatory Health Care Burden Among Older Adults With Multiple Chronic Conditions: A Nonrandomized Clinical Trial*

Mary Tinneti MD, Aanand Naik MD, Lilian Dindo PhD, et al.

JAMA Internal Medicine

Look for publications related to the current PPC initiative being incorporated CCF's Primary Care.

RECENT PUBLICATIONS

Le P, Zhang L, Misra-Hebert AD, Taksler GB, Herman WH, Rothberg MB. Trends in Age at Diagnosis of Type 2 Diabetes Among US Adults from 2001 to 2016. J Gen Intern Med. 2020 Mar 19.

Zhang JJ, Rothberg MB, Misra-Hebert AD, Gupta NM, Taksler GB. Assessment of Physician Priorities in Delivery of Preventive Care. JAMA Netw Open. 2020 Jul 1;3 (7):e2011677.

Deshpande A, Dunn AN, Fox J, Cadnum JL, Mana TSC, Jencson A, Fraser TG, Donskey CJ, Gordon SM. Monitoring the effectiveness of daily cleaning practices in an intensive care unit (ICU) setting using an adenosine triphosphate (ATP) bioluminescence assay. Am J Infect Control. 2020 Jul;48(7):757-760.

Pantalone KM, Misra-Hebert AD, Hobbs TM, et al. The Probability of A1C Goal Attainment in Patients With Uncontrolled Type 2 Diabetes in a Large Integrated Delivery System: A Prediction Model. Diabetes Care. 2020 Aug;43(8):1910-1919.

Misra-Hebert AD, Milinovich A, Zajichek A, et al. Natural Language Processing Improves Detection of Nonsevere Hypoglycemia in Medical Records Versus Coding Alone in Patients With Type 2 Diabetes but Does Not Improve Prediction of Severe Hypoglycemia Events: An Analysis Using the Electronic Medical Record in a Large Health System. Diabetes Care. 2020 Aug;43(8):1937-1940.