Usage of Mongolian and Arabic Infographics to Improve Patient Health Literacy in an Outpatient Setting  

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Abstract

Approaches to improve patient health literacy and thereby empower patients and encourage the health outcomes are an area of ongoing research. This is especially relevant in the outpatient setting, where limited time, and potential lack of resources can lead to limited conversations and knowledge sharing. This project seeks to uncover whether patient health literacy can be improved through the creation and provision of infographics concerning common health concerns in Arabic and Mongolian in select Denver Health and University of Colorado primary care sites. Site staff members reported that these documents provided value to both providers and patients, and emphasized that further improvements could be made.

Introduction

Health literacy has repeatedly been found to be efficacious in improving health outcomes(1). But the optimal tool by which to share medical knowledge with patients, are still under investigation and undergoing constant changes. Improved patient relationships and improved medication adherence are just two examples of the usefulness of shared decision making techniques(2). For these reasons, medical interpreters have become a part of the standard of care for health care institutions working with non-English speaking populations, and the Affordable Care Act has mandated that “reasonable steps to provide meaningful access to limited English proficiency eligible to be served or likely to be encountered in its health programs and activities” be taken by any health program which receives funding from the Department of Health and Human Services(3). Further research has gone into effective approaches to patient communication, all aligned at emphasizing the importance of information sharing(5).

Materials and Methods

Topics for the created infographics were generated from physician reported reasons for visits documented in EPIC for patients with appointments at an outpatient primary care clinic in the neighborhood of Park Hill, Denver, Colorado from November 2019 to January 2021. In addition to the CDC Leading Causes of Death in 2017, and the 2020 Denver Health Report To The City. The topics selected were Heart Disease, Diabetes, Syphilis, Depression, and Diabetes.

The primary language spoken by the patient was evaluated similarly, with the documented primary language in EPIC for each encounter. During this period, a total of 6,711 patient encounters were logged, 4,711 of these encounters had a primary language listed in English, 1,292 of Spanish, and 174 listed Non-English, Non-Spanish Languages. Three patient encounters logged during this period were excluded from this study due to reporting their primary language as “Unknown,” and provider documentation not elucidating the patient’s primary language or whether there was a need for translation services.

The Mongolian and Arabic languages were specifically chosen due to contributing just short of 40% of the Non-English, Non-Spanish speaking patients who had appointments at this clinic over the three month period, making up the majority of impacted patients per site physicians. Arabic was excluded from infographics development due to the reporting that a large portion of these patients were functionally fluent in English, and not receiving translation services during their regular visits. As such, the development of infographics was deemed to be potentially less efficacious in this patient population. These results contrasted from expected language distribution based on census data in Coloradodeshineanomenes in the most common language in Colorado behind English and Spanish, however the potential benefits to the patients of this clinic were deemed to be sufficient to base infographic language on these values.

Results

Documents were then disseminated to two primary care clinics in the Arapahoe and Adams Counties, Clinic providers where encouraged to distribute infographics to patients the clinic believed they would benefit. Success of this intervention was evaluated by informal interviews with staff at the clinics, who detailed how regularly they gave out the infographics, and the perceived effects these documents had on patient knowledge, questions, and engagement in their care. Eleven staff members were asked to be interviewed regarding the value of the provided infographics, with 100% of those requested agreeing to be interviewed. These participants consisted of three primary care physicians affiliated with Denver Health, three primary care physicians affiliated with UCHealth, four medical assistants, and one physician assistant. Interview length ranged from 5 to 25 minutes, dependent on staff availability. These individuals were asked a series of questions briefly summarized as: 1) "What has been the impact on patients?" 2) "What has been the impact on providers?" 3) "What are ways you think this intervention can improve?"

Conclusions

As Colorado becomes increasingly diverse, it will become increasingly more important to encourage the health literacy of our medically underserved populations. This intervention and following interviews provide several valuable insights into approaches to improve patient health literacy and self-advocacy. Most notably, that when these patients were given resources regarding evidence based practices, and fundamental health information in accessible ways, patients were more willing to engage in a dialogue with providers, and agree with evidence based practices. Another notable insight from this intervention should be that on clinic needs assessed prior to infographic development, beyond the language needed, and another being that interventions such as this must be integrated into existing infrastructure in order to encourage usage and increase the time required to utilize. Another noteworthy discovery from the interviews is the perspectives regarding this intervention differed significantly based on profession. Providers broadly saw these infographics as a way of encouraging dialogue with patients and sharing knowledge, whereas clinic staff viewed these documents as a resource that could be later referred to when scheduling appointments and requesting care.

While acknowledging that continuously evolving the resources is common in this realm of study it would be advantageous when developing such interventions, to conduct a thorough assessment of the patient population baseline, and ensure that there is a significantly large patient population to study following the intervention. These findings support existing literature on the topic, encourage future attempts at interventions in the realm of health literacy in the primary care setting, and the subsequent interviews with providers and staff provided valuable specific recommendations for future directions for this work.

References


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