“Can Organization and Word Choice Affect You?”

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Introduction

Over the summer, I had to see the doctor multiple times due to a cyst that I had to get surgically removed. Since I am over the age of 18 and we are in a pandemic, my mother was unable to go inside for most of the appointments with me. With this, I went and had to try to make sense of the directions that the doctor was telling me to do by myself. There were many times that I wanted my mother in there with me to help me understand what the directions were that the doctor gave me, to ask the questions that I did not think of, or just to have another set of ears in case I forgot something important. When I did not understand what the doctor was trying to explain to me, I had to figure out what he was trying to tell me. Once I understood what he was saying, I was then able to ask the questions that I had. This experience led me to my research question: How does the organization and choice of words affect how medical patients respond to the directions of a doctor?

Methods

I used both secondary and primary research methods to answer my research question. My secondary research helped me further the larger conversation of patient/physician communication which was most useful for fully answering my research question. My first secondary research article, “*Patient-Physician Communication*” discusses how communication among the physician and patient can affect how the patient reacts to the directions of the doctor. My second article, “Does training general practitioners (GP) to elicit patients’ illness representations and action plans influence their communication as a whole?” talks about how the communication between the GP and patient is essential, and how a GP communicates to the patient to understand what the GP is telling them, and how communication has a positive effect on the patient. The third article, “Presenting quantitative information about decision outcomes: a risk communication primer for patient decision aid developers” discusses the different ways that will be helpful for most patients to understand the directions and the conversation that is occurring with the doctor and how different formats with numbers help patients understand better, but also how doctors need to be aware and use an evidence-based approach to present the information in simple and clear ways. The fourth essay that I looked upon, “The role and relationship of cultural competence and patient-centeredness in health quality care” focuses mainly on patient-centeredness and cultural competence. Patient-centeredness is “a way in characterizing how physicians should interact and communicate with patients on a more personal level” and cultural competence is when a physician is able to understand, communicate, and effectively

interact with people across many cultures. The fifth and final essay that I read is, “Doctors’ insights into the patient perspective: a qualitative study in the field of chronic pain.” Although this essay does not sound too specific towards my research question, the essay talks about how doctors explain their directions to the patients and what their plan is for recovery.

For primary research, I distributed surveys. You can find an example of my survey in the Appendix. I surveyed college students or traditional college-age people because we are at the point in life that we no longer have our parents to go along with us to doctor appointments. We go by ourselves and do not have them to help us understand the things that the doctors say or the family history chart that needs to be completed every now and then. Without the helpful knowledge of our parents, we are truly on our own when it comes to trying to understand what the doctor is saying.

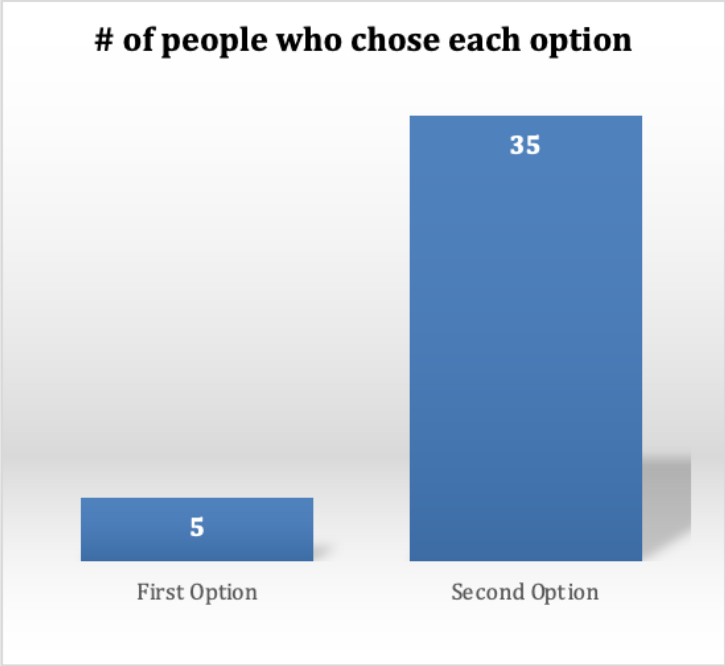
Having college students/traditional college-age people participate, I can see how the terminology a doctor uses affects us. Over the course of a week, I distributed the surveys to anyone that I saw that was passing by my room. I created forty surveys, so I have a variety of answers. I sustained confidentiality through the process by not collecting names. After survey completion, they put it among the other surveys so I do not know who marked what. Each of my surveys had two different wordings on directions that the surveyor would receive at the doctors’ office.

The first direction had more complicated and technological words like BID, which means two times a day, and SID, which means once a day. Amoxicillin is a type of antibiotic. The second option had simpler and more basic terminology and used 24 hours and 12 hours instead of BID and SID and the surveyed described what Amoxicillin was in the directions. However, both directions said the exact same thing, just in different ways.

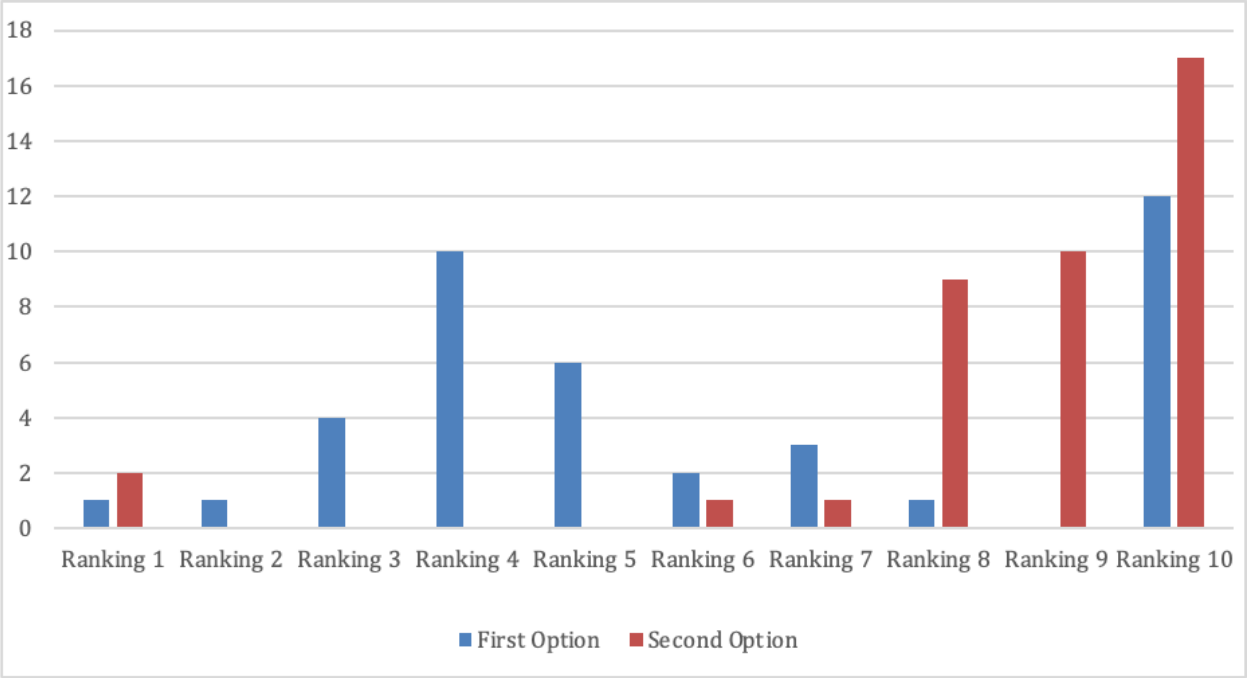
Those who were surveyed had to choose which option they better understood. At the bottom of the survey was a scale numbered one through ten. Each person surveyed had to circle the number of how well they would have followed each direction that they received. One being the least likely to listen and ten being the most likely to listen. To reduce bias, I did not help the surveyors out with the terminology if they did not know what some of the words meant. I wanted to keep the experience as close to what would be going through their minds if they were given the directions at a doctor’s office. When I went to the doctor this summer, the doctor said some bigger words, so I asked him to “break the words down into my kind of language”. Once the doctor broke down the words and explained his directions into simpler terms, I was able to understand more fully. I then felt more comfortable following his directions and completing them correctly.

Results

The below table shows how many people chose which option that they understood more clearly. As you can see, more people chose the second option as the set of directions that they better understood, that is why “second option” is taller than “first option”.



The below table shows the number of people who marked each number on the number line on how likely they would follow the directions given for each option. The blue columns represent the first option, and the red columns represent the second option. On the X-axis, it has Ranking1-Ranking 10; this means the number on the number line 1-10. The ranking shows how high each person said that they would listen to the directions given by their doctor. So, the higher ranking (ranking 10), the more likely it that they would listen to the directions perfectly. On the opposite end, the lower ranking (ranking 1) means that they would not listen to the directions given to them by their doctor. The y-axis shows how many people put each ranking as their answer on the number line on the survey.



As I look over the results of my survey, it turns out that most of the people chose the second option of directions to be most clear for them. Then when you move onto the second chart, how closely they follow the directions, that many of the people chose to follow those set of directions to a tee. You can see in the two charts above that when the doctor breaks down the directions into words that are more easily understood, more people prefer and will increase their following of the directions. Even with the second chart, when given the second set of directions, almost all, chose eight, nine, or ten. This data answers my research question; through this survey, it is seen that how doctors' word their directions do affect how the patients understand and follow them.
Moving back to the secondary research, all the articles that I have found have been very helpful to answer my research question. Three out of the five articles deal with communication, which is an important answer to my question.

> *These skills are, Assess what the patient already knows, Assess what the patient wants to know, Be empathic, Slow down, Keep it simple, Tell the truth, Be hopeful, Watch the patient's body and face and Be prepared for a reaction.*

The first article, "Patient-Physician Communication", has a certain quote that I found very persuasive in answering my question. The quote is, "Patients who understand their doctors are more likely to acknowledge health problems, understand their treatment options, modify their behavior accordingly, and follow their medication schedules" (D'Alonzo 1). In simpler terms, it states that if a patient understands what the doctor says then they will have a better

chance of following the directions, which is very helpful since my question asks if choice of words that a doctor uses affects how the patient will respond to the directions. D'Alonzo talks about nine different communication skills. These skills are:

> *Assess what the patient already knows, Assess what the patient wants to know, Be empathic, Slow down, Keep it simple, Tell the truth, Be hopeful, Watch the patient's body and face and Be prepared for a reaction.*

These nine skills are extremely important because it allows the doctor to understand more on how to communicate effectively to the patient. With these skills, the doctor has a better idea of what organization to use and the words that they need to use when giving directions to a patient. When the organization and words best fit the patient, then the patient will respond positively to the directions.

The second article, "Doctors' insights into the patient perspective: a qualitative study in the field of chronic pain" helps answer both parts of my question, how the organization and words affect the patient. This article also extends with the first article. They both agree that communication is key between the patient and the doctor. The two articles also answer both parts of my question.

This quote from the second article is a strong point with the answer, "We have to 'sell' our solution, give reasons, play our cards right. Patients have to embrace our suggestions because they are convinced that it is the right one and not because we want them to choose a particular option" (Zanini 1). With this quote, it shows that doctors must specify why they want their patient to use this certain medicine or do this certain activity. The patients need to know exactly what the doctor is thinking and why they are thinking that, so "selling" their solution is a main point in allowing this to happen.

There is also a part in the article that says that doctors need to provide clarity about the treatment and the side effects of the treatment. When this is done, a good patient-doctor interaction is occurring. Good patient-doctor interaction is also very important when it comes to the patients taking the directions from the doctors seriously and strictly. The findings from this article are able to answer my question by supporting that when doctors are organized in the room and use the correct choice of words that patients tend

to understand more and are more likely to have a better relationship with the doctor and will follow his directions more closely.

The next article, "*D*oes training general practitioners (GP) to elicit patients' illness representations and action plans influence their communication as a whole" extends onto the first article by saying that communication between the GP and patient is essential. Communication is essential because "better communication with patients results in increased patient satisfaction, greater medication adherence, and improved clinical outcomes" (Denise 1). This quote shows that communication does have a positive effect on the patient's understanding. The findings in this article are relevant to my topic because clear communication leads to clear directions, which will then allow the patient to perform the directions correctly. If the communication is poor, then the patient may not understand fully and do something wrong. The article also suggests that when talking about the illness representations, that communication among the patient and doctor may be stiffened because patients may be reluctant to express their views in the presence of a doctor and that the doctor may be unfamiliar talking about private issues like the patient's beliefs or the best medical treatment for the patient and the doctor may be uncomfortable telling the patient that their belief does not match up to the medical knowledge. With just a few hours of training on communication, the communication between the patient and doctor ended up being longer and more productive.

When the illness representation is considered in the conversation, it improves the doctor-patient communication by allowing the doctor to pay more attention to the concerns and lifestyle issues of the patient. This helps answer my question by proving that using the correct choice of words when communicating with the patient will positively affect the patient along with that illness representation between the doctor and patient are very important when it comes to the doctors explaining the directions.

The next article, "The role and relationship of cultural competence and patient-centeredness in health quality care" has its main point on patient-centeredness and cultural competence. The definition that the article gave patient-centeredness is "a way of characterizing how physicians should interact and communicate with patients on a more personal level" (Somnath 1). Basically, patient-centeredness is when the patient and the doctor bond on a more personal level. To get to this bond, doctors need to learn how to communicate in a specific way and become more personal. It is also important for the patient to be the so-called "center of attention". I think it is important to feel this relationship when trying to understand what the doctor is telling the patient when it comes to information and directions. If the patient does not trust the doctor, then they will be apt to not follow what the doctor said to do. The article states, "In essence,

patient-centeredness involves perceiving and evaluating health care from the patient's perspective and then adapting care to meet the needs and expectations of patients" (Somnath 1). This quote is extremely helpful towards my question because the quote claims that the doctor needs to put himself in his patient's shoes and make sure that he is able to understand what he is telling the patient from the patient's perspective. With this, the doctor may change the organization or use different word choices when giving his directions to the patient.

Advancing onto cultural competence, this is when a doctor can understand, communicate, and effectively interact with people across many cultures. The doctor will base their communication on the patient's culture to a certain extent. It is important for the doctor to be able to speak to people with different cultures because that boundary could lead to miscommunication between the two. I think that cultural competence does not play a big role in answering my question besides just making sure that the communication between the patient and doctor can be understood by both parties if there is a language or cultural barrier. If there is one, there are many solutions to solve this barrier like having an interpreter, which the doctor can then follow the normal steps to using the correct organization and word choices to make sure the patient understands their directions. Based on what Somnath is saying, this article agrees with the first article in the thinking that when a patient understands the doctor, then the next steps will go more smoothly.

Finally, my last article, "Presenting quantitative information about decision outcomes: a risk communication primer for patient decision and develops" deals with presenting the information. In this article, Lyndal talks about the eleven risk communication factors. These factors could affect the communication between the doctor and patient which could lead to the ineffectiveness of the patient following the directions given by the doctor. Another main topic of this article was using numbers when explaining the reasoning and directions to the patients.

The factors are Presenting the chance an event will occur; Presenting changes in numeric outcomes; Outcome estimates for test and Screening decisions' numeric estimates in context and with evaluative labels; Conveying uncertainty; Visual formats; Tailoring estimates; Formats for understanding outcomes over time; Narrative methods for conveying the chance of an event; Important skills for understanding numerical estimates; and Interactive web-based formats.

Lyndal claims that if numbers are used then the denominator needs to stay constant, use smaller numbers instead of big ones, and based on each situation is how the numbers need to be used. This quote from the article supports this thinking, "For both written and verbal information, patients have a more accurate understanding of risk if probabilistic

information is presented as numbers rather than words” (Lyndal). This also answers my question based on that organization does affect how a patient understands what the doctor is saying and with the choice of words, it is sometimes easier to show the risk through numbers than through verbal communication.

Finally, during the conversation of the article, it is said that some people understand visual information better than verbal information. The article also states that visual formats can also aid in the comprehension of more complicated concepts. A study showed that vertical bars, horizontal bars, and pictographs were perceived most accurately. Visual aids are important because it is often recommended as an aid to interpretation for numerical data. All in all, the article talks about how different formats with numbers help with patients' understanding better, but doctors also need to be aware and use an evidence-based approach to present information in a simple and clear way.

This article does not directly agree or extend onto the other articles but it still agrees to the point that people learn and obtain information in different ways and so the doctor needs to understand how to tell the information in multiple ways. So overall, this article helps answer my research question based on how the doctor communicates the information to the patient will affect how well the patient understands the information.

From my personal experience and through my primary research, I have found that when the patient understands what the doctor is saying then things will go more smoothly. The patient will ask more questions and follow the directions more carefully. When the patient does not understand something, it is harder to ask questions or follow the directions. This is shown through my personal story in the introduction and through my survey.

With my overall experience of researching and creating my own study, I have found that the organization and choice of words that a doctor uses do affect how the patient views and understands the directions that they are given by the doctor. Through my research, I have found that communication, patient-centeredness, and different ways of presenting information play a huge role in the effectiveness of the understanding of the patient. With my own personal experience, I have found all of this to be true. If a patient does not understand the doctor, then they will be less likely to follow the directions correctly and completely. However, with all the needs of the patients and all the different ways to give information, doctors do not have it easy. It takes the doctors a lot of learning and preparation to give the information that they have to the patients, to the point where the patients understand the information. So, we patients also have to give

the doctors credit for all the work that they do and for all the things they go through to help us out.

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Appendix

Scenario: Sammy goes into the doctor's office with excruciating pain in his ears. The doctor diagnosed him with a really bad ear infection. The doctor gives him the following directions on how to heal the infection…

(choose which option you better understand and would prefer)

- ❏ You will take Amoxicillin BID for 7 days and then SID for the remaining of the pills.
- ❏ You will be taking the antibiotic, Amoxicillin, every 12 hours for 7 days, then every 24 hours until all the pills are gone. You may take the antibiotic before or after food.

If you were given the first option by the doctor, how strictly would you follow the directions?

Not follow Completely follow

1 2 3 4 5 6 7 8 9 10

If you were given the second option by the doctor, how strictly would you follow the directions?

Not follow Completely follow

1 2 3 4 5 6 7 8 9 10