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In the Eye of the Beholder: Detecting and Correcting Implicit Bias in Medicine

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An Oath To Do No Harm

One would assume that the Hippocratic oath, first do no harm, would apply to any and all patients, regardless of race, gender, ethnicity or sexual orientation. We assume it equates to fair and equal treatment for all patients. Yet, although health care providers possess incredible skill and compassion, they are human with impressions formed over their lifetime based upon their own personal experiences. Such inherent biases may not even be realized by the provider, yet still play its way into a less than desirable outcome. While bias exists in all forms and can be exhibited by all people, bias in medicine certainly has no place in patient care and can lead to unfortunate outcomes or otherwise lead to a failure of the delivery of evidence-based medical treatment. Before such biases can be corrected, curbed or even eradicated, one must identify the inner learned biases that formulate our pre-conceived impressions.

Once we understand and recognize the unconscious biases, one can then develop strategies for honing in on personal awareness, coping with issues of conflict, minimizing the notion of stereotypes, correcting the culture, and rationalizing the end goal of protecting patients' rights and patient safety. Such tool kit will enable us to effectively manage provider bias toward patients, as well as bias that we face in our day-to-day activities. All in effort to reduce the risk of harm.

What Is Implicit Bias?

Implicit bias, also referred to as unconscious bias, is the tendency to make judgments based upon prejudice and assumptions, which are neither intentional nor deliberate. The underlying attitudes and stereotypes that lead to implicit bias are beliefs or simple associations that one makes between a person and the subsequent evaluation of the person, simply triggered by the mere presence of that person. It manifests as an automatic stereotypical response that one is not conscious of. There is no self-awareness of these beliefs or attitudes. Only subtle cognitive processes. They are formed over one's personal experiences, influences and background. Our implicit biases do not necessarily equate to inclusivity as one of our values. Rather, it demonstrates that we are not aware of how our own implicit and thus, we are unaware of the resulting impact of our actions. This is unlike explicit bias where one's attitudes and beliefs are conscious, deliberate and declared.

There are numerous identifiable classifications of implicit bias. Affinity Bias refers to the tendency to gravitate to people we perceive to have similarities to us. We may have a tendency to hire, promote, or befriend a person who has similar race, gender, age, or appearance as us. Attribution Bias is the tendency to see people as being less competent. As an example, studies show that male views toward women demonstrate an impression of less competency.

Confirmation Bias is our tendency to lean toward those who hold similar beliefs as our own. Conformity Bias occurs often in group settings where our views are swayed by group consensus or influenced by beliefs of others. The Contrast Effect refers to our evaluation of one person in contrast to another based upon our simultaneous interaction or interaction in close succession. We compare two people rather than assessing each as individuals. The Halo/Horn Effect is our tendency to regard someone in high esteem, placing him or her "on a pedestal" based upon a piece of information that we deem to be of value. Conversely, the Horn Effect causes us to view someone negatively after learning something about them that one perceived to be unfavorable.

There are many more examples which include bias based upon age, beauty, weight, gender, race, to name a few. To combat implicit bias, key factors include educating ourselves as to the various unconscious bias systems and understanding the mechanisms which may allow them to surface in our everyday interactions, will assist in aiding us to avoid them or curb such that we can make better decisions and enhance equal representation. While implicit bias is a normal part of our brain function, it will enable us to quash our customary bias and lead us to a more inclusive and diverse environment and in medicine, it will lead to increase in patient safety and equality. Taking the time to reflect on our pre-existing beliefs will create awareness and is the roadway to coping with and correcting these hidden biases.

How Did We Learn to Be Unconsciously Bias? The Brain Science of Unconscious Bias

Whether we recognize this or not, our pre-conceived beliefs influence our professional lives and those of the medical providers. These are mental shortcuts that participate in the decision-making as the brain is processing millions of pieces of data. Understanding our pre-programmed beliefs and impressions is best achieved by understanding the brain science of unconscious bias.

There are two primary segments of the brain that are essential in formulation of our impressions. The amygdala is the portion of our brain that is specialized for input and processing of our emotions. It is involved in the formation of emotional responses and emotional memories. The hippocampus is essential for declarative and episodic memory. It controls emotional memory recall and regulation. It ties emotional memories to the place where it happened. When we experience emotional reactions, these two portions of our brain interact to translate into particular outcomes. Hence, if one had a negative experience with a certain type of person, they may continue to have that negative reaction toward similar persons in the future.

Categorization is the act of sorting and organizing things according to the group, class, or category. This occurs when we "lump" a person into a category as an automatic response rather than regarding the person as an individual. As an example, "racial categorization" predicts implicit racial bias. If we assume

that all people of a certain race act similarly or have a similar background, upbringing, education and social mores, we are lumping them into one group without consideration of individuality.

Cultural conditioning, media portrayals, and our own familial upbringing, can all contribute to the implicit associations and categorizations that we form about members of other social groups. However, we can also recognize how such groupings of people without consideration for each as an individual, can lead to unfair treatment, and even inappropriate harmful treatment. Harm in medicine is not only physical but can be emotional. One can feel demoralized, humiliated, and self-conscious if he or she is not regarded as an individual, free of assumptions.

Additional Causes of Implicit Bias in Medicine

When we address the stressors in medicine, we can identify factors that play a role in contributing to outcomes affected by implicit bias and explain why these unconscious biases may be heightened during provider care. As an example, in fields such as emergency medicine, where time is of the essence to make critical decisions based upon limited amounts of information, there is a tendency to rely upon implicit notions about particular patients.

Notably, there is an extreme amount of stress involved in caring for patients who present with emergent medical issues. The provider sees the patient on a first-time and limited basis without the benefit of prior interaction and development of a physician-patient relationship. The emergency department is notoriously over-crowed which also creates time issues. With these time constraints, increased pressure and stress and cognitive stressors, many unfortunate circumstances may be impacted by implicit bias.

One emergency medicine specialist shared that the department recognized over time, that the triage nurse routinely assigned certain patients with similar characteristics to the patient room furthest away from the core of the department and in an isolated corridor. As noted, in this medical setting where the patients are in and out with no long-term relationship developed, staff biases may play a role in what would in most situations be considered discriminatory behavior, certainly if the action was intentional as an explicit bias.

Patients have been misdiagnosed based upon their appearance, gender, education, race, where differential diagnoses have been formulated which would have been more openminded had such social factors have been excluded from the equation. Further shared accounts provide an instance of a patient being misdiagnosed when presenting with signs and symptoms of a drug overdose because the patient was attractive, well dressed and Caucasian.

While the above examples have been based upon providers' impressions and conclusions as to harmful outcomes of perceived implicit bias, there have been medical studies that show reveal test results demonstrating implicit bias based upon medical diagnoses. In one such study, it was revealed that women who have been diagnosed with cervical cancer versus ovarian cancer. In this study, the Implict Association Test (IAT) was administered to healthcare providers including physicians and nurses. The unfortunate conclusion has been reported that it is perceived that those with cervical cancer were either negligent in failing to have routine pap smears and/or are sexually promiscuous. The more

shocking statistic related to this study revealed that those who showed this implicit bias were female providers and not male providers. Further those with implicit bias were nurses and not physicians. Those who were older and more experienced in healthcare showed stronger implicit bias and stereotyping over the younger, less experienced providers. Finally, those providers who had no training in cultural competency had shown greater bias than those who had received such training.

The idea that women suffering from cancer are subject to bias and stereotyping is heart breaking. In the face of implicit bias, strategies must be employed to educate and train providers to assist in awareness and eradication of untoward attitudes to ensure equality and safety for all in medicine. While implicit bias is believed to be unconscious, strides must be made toward awareness and identification to enable bias to be corrected. There is an underlying ethical component to any bias in medicine. While explicit bias is much easier to recognize, in the bias that is unconscious, we must work toward identifying it. We must employ training and education in effort to assist in identifying these biases to improve and ensure equality and the delivery of best medical practices.

It is a general principle that if one is not devoted and motivated to perform to the best of his or her abilities, the outcome will not be the best that it could. If a provider has a negative perception of the patient, it is not conceivable that he or she will go over and above to deliver ultimate care. Involved in the motivation of most, is to do the best he or she can which unfortunately, can be hampered based upon lack of drive if there is an associated negative view of the patient.

Hence, to achieve the best outcome possible, to fulfill the providers' Hippocratic oath, unlearning the implicit bias is a necessary next step to correcting the bias.

How to Unlearn Implicit Bias

Our biases may be created by stereotypes or experiences that are outdated, overly general or simply based upon incorrect assumptions. Such unconscious biases may cause one to respond to others in negative ways. This raises obvious concerns in the medical field as it can impact patient outcomes, patient mental well-being and emotions.

It can be difficult to recognize our own implicit biases as they are deeply situated in our unconscious thinking. Fortunately, psychologists and cognitive scientists have discovered based upon their research that these biases are not set in stone and that they can be unlearned.

To unlearn our implicit biases, we must first discover our blind spots. Self-awareness and motivation are key to uncovering our hidden biases. Understanding the different types of biases assists in our identification of our own. Once we recognize our blind spots, tools to aid in unlearning these biases include: increasing our interaction with those subject to our implicit biases; changing our routine or pattern; focus on positive characteristics of others; be specific in our intentions; and accept our biases to correct the biases.

Once we are aware of and understand implicit bias, we can catch ourselves by taking a pause and take note of those blind spots which previously went unnoticed. When we catch ourselves in certain situations, we can unlearn the prior behavior and take new course of action. As an example, if we walk

into the company lunchroom and gaze across the room looking for a table of people with whom we identify, we should catch ourselves and instead, sit at the nearest table, despite that there are no familiarities or similarities that we normally and routinely seek. Recognize our blind spots and break the pattern.

Other tools to break the pattern include focusing on viewing people as individuals rather than classifying them into a group. Work on changing stereotypes by increasing your exposure to those individuals who are not typical of your peer group. Educate yourself as to various ethnicities, religions, races, nationalities and the like, which will aid in appreciating the backgrounds of others. Work on unlearning the issues that make up your blind spots. In one study, those who were fearful for certain types of individuals were instructed to repeat to themselves as they walked past these types of individual, "I am not afraid of [this person]". As mundane as this may seem, the results of the study revealed that this unlearning exercise actually did positively affect the brain and reduced the stress levels and impressions of those who participated. This study proves that conscious effort to correct our unconscious beliefs is effective and productive.

If we are specific in our intentions, i.e. " I will…" rather than "I want to…" when declaring the change of course. Identify your plan to change prior habits and impressions. Most importantly, do not shame yourself once you identify the once unknown biases. We all have these. The first step to correcting the biases is to accept them.

Leadership Interventions Toward Our End Goal

As the old adage states, the apple does not fall from the tree. If certain actions and attitudes come from the top, it most certainly may have an impact on others. Change should begin at the leadership level to educate those in the organization and to establish and invoke a culture of inclusion which will inevitably enhance the culture of safety.

As organizations are becoming more aware as to the science of implicit bias and its potential negative impact on patient care and well-being, there are various available modalities that can be used for education and training. First, develop a positive framing plan. Clearly articulate the desired behavior and resulting outcome. Build the belief that the previously unconsciously formed biases can be overcome. Routine workshops for education and training as to implicit bias are the most common and readily achievable tool. Utilizing focus groups and subcommittees can be also quite useful. Allowing confidential reporting and use of confidential surveys, allow providers to have a voice without creating conflict or fear of retaliation. Consideration of implicit bias testing such as IAT or abbreviated versions of bias testing can help shed light on one's unconscious biases which can lead to an uncovering of one's blind spots. Certainly, the results of such testing should be confidential such that the provider will not face shame or untoward action.

Finally, think outside of the box. Consider where the greatest blind spots lie in your organization and tailor your framework to mee those needs and achieve the needed goals accordingly. Think of the Blueshield of California's "Hear Me" campaign which came as a result of tennis champion, Venus Williams' outcry against gender and racial bias in medicine when she was subject to multiple delays in her medical diagnosis of a debilitating disease.

While we cannot prevent implicit bias, we can work toward accepting it and correcting it. In doing so, we will continue to respect the health care provider oath to do no harm and further the goal of ensuring that all patients will be treated equally.