

Cognitive Strategies to Improve Patient Care in Cross-Cultural Settings | 1

Abstract

Cross-cultural competency has been established as critical to effective patient care. Differences in culture can upset internal homeostasis and can cause negative emotional responses, which in turn can affect behavior in the doctor-patient interaction. Current strategies for improving cross-cultural care in the optometric curriculum focus on educating the practitioner to recognize and embrace cultural differences and encouraging empathic behaviors. We propose a supplemental strategy: to utilize cognitive, top-down strategies to regulate the emotional response. With regulation of emotional responses, behavior can be improved, resulting in better patient care outcomes in an optometric setting.

Key Words: *cognitive strategies, emotional regulation, patient care, optometric care, cultural competency*

Introduction

Culturally appropriate patient care has been shown to result in positive health outcomes.¹ Without culturally competent care — the ability to accept diversity and adapt to unconventional requests — cross-cultural experiences involving patients and healthcare providers can evoke emotional responses that can be detrimental to patients. Culturally competent care may be difficult to employ because humans inherently have a need to maintain homeostasis and categorize their world. When this equilibrium is disrupted, (i.e., when expectations of actions clash due to differing cultural norms), emotional temperatures may rise, which affects behavior and how practitioners treat patients. Managing patients in a state of heightened emotions can cripple relationships and negatively impact patient care. We propose that behavioral changes through the utilization of cognitive, top-down strategies can prevent progression to a negative emotional response, and, therefore, improve patient care in a cross-cultural encounter.

Studies^{2,3} have supported that in order for healthcare providers to enact this change in behavior and achieve a cultural competence of awareness and sensitivity, training should be initiated at the student level. Optometric educators strive to increase their own cross-cultural competency³ and recognize the responsibility to ensure that graduates develop cross-cultural competencies. Although educational strategies are in place, current methods are insufficient to address the increasingly diverse society.⁴

The cultural competency curricula in optometry schools typically employ lectures, workshops, videos and role-playing with the focus on changing behaviors.⁵ A common thread among the curricula is focusing on the need for the practitioner to recognize, accept and embrace cultural differences, be empathic, and offer care that is in alignment with patients' beliefs and values. We argue that although these are valuable end goals, this approach to educating students often neglects determining the root cause of problems associated with cultural differences, and, furthermore, fails to offer effective strategies for managing the resulting emotional responses. Thus, the purpose of this paper is to offer optometric educators a framework based on the latest research in cognitive psychology and neuroscience to help address the following questions:

1. Why do we fail to accept and appreciate cultural differences?
2. What are natural emotional reactions during cross-cultural encounters when values and behaviors differ from our own?
3. What strategies can we use to self-regulate when strong emotional reactions arise?

Culture is knowledge stored in our brains. Aversion to differences and in-group preference are also processed through our brains. For this reason, we propose a framework that employs the brain in solving the conflicts that it initially developed. This paper uses ideas derived from cognitive psychology and neuroscience to propose a theoretical model for emotional regulation to assist practitioners in effectively managing emotional responses evoked by differences in cultural orientations. The goal of this paper is to provide solutions for calibrating the emotional temperature, ensuring more effective care.

Culture and Care

Effective care depends on patients' adherence to a treatment plan, which in turn depends on patients' levels of trust and concordance (agreement between doctor and patient).⁶ Differences in cultural values and beliefs may increase the emotional temperature during cross-cultural encounters, evoking emotional responses that can influence the doctor-patient

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relationship and affect trust levels. Although it has been shown that doctors display a range of emotional responses, both positive and negative, when treating various ethnic groups,⁷ the majority of doctors tend to show less empathy to those belonging to unfamiliar cultural groups.

Previous studies^{7,8} have focused on the impact of cultural values on treatment disparities, patient satisfaction and the quality of doctor-patient interaction. However, research examining the effective regulation of culturally evoked emotional responses is lacking.

This discussion is increasingly relevant because of changing demographics and the inevitability of encounters between patients and doctors from different cultural backgrounds in modern multicultural societies. For the sake of illustration, consider three cross-cultural cases:

Case A: Horacio, a 65-year-old male patient complains about eyestrain, headaches and feeling tired after long periods of study. He visits an optometrist because he thinks his current prescription is no longer accurate. His intuition is correct. His new prescription is OD +6.00D, OS +8.00D with +2.50 ADD. Concerned about the thickness of the lenses he will have to wear, he asks the optometrist to lower the prescription. The doctor is shocked and demonstrably irritated by the request. *How dare the patient try to negotiate the prescription with me?*, she asks herself with indignation. Horacio explains that he is a religious leader in his community and is afraid his constituents will perceive his new thick lenses as a sign of rapid aging.

Case B: The doctor goes over his schedule for the day and realizes that Norma, a 58-year-old female, has a follow-up appointment at 2:30 p.m. His heart sinks. The last time Norma had an appointment she was 30 minutes late and brought her granddaughter, daughter and daughter-in-law to the appointment. The entire family came into the appointment room. The granddaughter, as usual, spoke on Norma's behalf even though Norma's English is fine. The back and forth between the family members greatly delayed the examination.

Case C: Isabelle is an indigent patient from a rural part of an underdeveloped country in South America. She stopped taking her medicine because her spiritual healer assured her that intraocular pressure could be controlled through his methods. The doctor is visibly irritated when he hears this and asks Isabelle if she wants to go blind. He later realized his approach to the situation was too aggressive.

Culture and Differences

Culture is responsible for major behavioral variations in human societies.⁹ It is a set of shared beliefs, values and assumptions about the world that helps individuals solve adaptive problems, including how to communicate and how to relate to one another and to the natural world. Variation in behavior is the hallmark of cultural diversity. Yet, humans are not keen on understanding and embracing differences. Although we may consciously and publicly display the intention to be accepting and tolerant to cultural differences, the human brain is judgmental, discerning and categorizing.

We argue that two main processes in the human brain have a direct impact on our ability to accept and deal with cultural differences. The first process is the brain's need to maintain cognitive homeostasis (internal harmony). Cultural differences upset internal balance, which leads to a change in behavior that may be unfavorable in a professional setting. The second process is the brain's need to categorize the world and attribute value to these categories. These two processes influence our emotional reactions to cultural differences and consequently have a direct impact on behavior and patient care.

The Need for Internal Balance (Homeostasis)

Homeostasis is the process of internal regulation to stay in equilibrium. Maintaining this balance is part of human nature and a neurological adaptation necessary for survival.¹⁰ The most basic, primitive parts of the brain are constantly scanning the environment in search of information that upsets internal balance. When disconfirming information is detected, a motivational emotional response prompts the individual to seek corrective action in an attempt to restore the original state of equilibrium.¹⁰

Internal balance may be disrupted by internal threats, such as hunger and thirst, as well as external threats such as the imminence of emotional distress. Cross-cultural interactions are a prime example of an external disruption that can upset homeostasis through emotional distress, such as when one's belief system is contradicted.⁶ For example, anxiety arises when well-established and commonly accepted cultural norms are broken (e.g., being late for meetings, displaying too much emotion).

Threats to homeostasis trigger an impulsive "fight, flight or freeze" response from the "emotional brain" (limbic system).⁷ The threats put the brain in a state of arousal, bringing the emotional temperature to alarming levels. In a "fight"

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response, one may become frustrated and act defensively by effusively defending a viewpoint. In a “flight” response, one may avoid the confrontation and not solve the problem. In a “freeze” response, one may not know how to act or what to do. None of these responses is ideal in a professional context. Practitioners are expected to act rationally, remain under control, and, most importantly, give the highest level of care to the patient.

The Need for Categorization

Categorization is the basis for prejudice and it helps humans to make sense of the world.¹¹ People often stereotype others as representatives of social groups rather than individuals. These categories often associate in- and out-groups with specific attributes. For instance, Hispanics are perceived as being late, Asians as being diligent and studious, the elderly as being less physically fit, women as more emotional, etc. While certain categorizations, associations and attitudes towards in-groups and out-groups are conscious, some are subconscious (implicit bias). These classifications cause potential for errors in judgment that may lead to offensive behaviors.

Cuddy et al.¹² suggest that discrimination against others based on categorization of group membership is a universal trait. The innate human desire to create social bonds (to affiliate and form communities) and to conquer (achieve dominance within a social hierarchy) are basic, universal human goals and aspirations. In pursuing these basic motivations, it is vital to be able to categorize others into in-groups and out-groups, an adaptive feature of the human brain.¹³ These categories are formed either through experience or social transmission. Once set, they are stable and difficult to change.

Categorizations impact emotional states and behavior. The Stereotype Content Model (SCM)¹⁴ postulates that societal groups are appraised by two main categories: warmth (a friend-foe judgment) and competence (capability judgment). These judgments of warmth and competence elicit emotions towards in-groups and out-groups. These emotions can be positive (e.g., pride and admiration), negative (e.g., envy, disgust, pity) or mixed.¹⁴ For instance, the elderly may be categorized with feelings of warmth but with lack of competence due to the mental and physical fragility associated with advanced age (pity); Asians may be categorized as low in sociability (low in warmth) but as being competent (admiration).

Categorization is a cognitive strategy. Prejudice, stereotyping and dehumanization of individuals based on group memberships have definite neural markers, namely reduced activity in the executive and rational part of the brain (prefrontal cortex) and increased activity in the emotional parts of the brain (limbic system).¹¹ Neuroscience has long established that a region of the prefrontal cortex, the medial prefrontal cortex (mPFC), is activated when people think about others they care about and interact socially.

It has also been established that when individuals think or interact with out-groups labeled as low-warmth/low-competence, activation of the mPFC is low. Low-warmth, low-competence out-groups are often objectified. Severe prejudice against out-groups reduces humans to the lowest possible levels, dehumanizing the individual, leading to thinking about or behaving towards the individual as “less than a person” or as an object.¹⁴ This largely explains how people can act towards members of out-groups with disdain, abuse, hatred and violence. An example of the consequence of this prejudice is demonstrated in Case C: Isabelle is indigent and believes in spiritual healers, characteristics that may be perceived by the nurses, staff and doctor as being low-warmth and low-competence. In return, the patient may be treated with disdain.

In a healthcare setting, doctors categorize patients based on ethnic background, race, age and socioeconomic status. Similarly, patients come with preprogrammed categories on how a doctor should look, speak and behave. Any variation from pre-established categories introduces potential for distrust. Depending on the associations that are made through categorization, the doctor-patient relationship may vary considerably.

The Case for Top-Down Regulation

So far, we have discussed the need for the brain to achieve internal harmony and to categorize. Disruptions to these needs, such as cultural differences that lead to differentiation between in- and out-groups, can evoke strong emotions such as frustration and disgust.

Top-down strategies and homeostasis

To achieve emotional homeostasis, impulse control through self-regulation is fundamental. Emotional responses are associated with the limbic system, a more primitive structure in the brain. Emotional control, on the other hand, is associated with the pre-frontal cortex (PFC), the more recently evolved, outer region of the brain. Thus, a plausible solution to cross-cultural encounters is to implement “top-down” strategies, moving responses from the more primitive limbic system, which is engaged in automatic emotional, impulsive responses, to the PFC, where the ability to reason

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resides.¹⁵

Top-down strategies and categorization

Forgoing preconceived notions and firmly established stereotypes is essential to proper patient care. However, attempting to reverse this way of thinking is challenging. In the case of categorization, conceptual associations (typical of stereotypes) are learned through long-term exposure to categorical information. Inroads have been made to change implicit learning by pairing members of out-groups with positive images that are counter to the stereotypical view of that group.¹⁴ For example, to undo the stereotype that Asians are low in sociability, one would need encounters with or exposure to Asians who demonstrate extraversion and sociability.

Although changing implicit learning can be achieved, it is challenging, particularly in a cultural setting in which implicit stereotypes are reinforced. Ames and Fiske¹¹ propose that undoing intergroup associations is a less effective strategy compared to cognitive control of behavior because it requires specific exposure for each category. Therefore, top-down strategies for cognitive emotional regulation can be more effective in counteracting the downfalls of categorization.

Strategies for Cognitive Control of Emotions and Behavior

Advances in research in psychology and neurobiology that focus on self-control offer important insights for the healthcare practitioner on strategies to achieve emotional homeostasis through self-regulation.^{16,17}

Scholars at the University of Chicago¹⁶ developed a two-stage model to explain our failure to execute self-control. Stage 1 is the failure to recognize conflict between impulses and goals. For instance, practitioners may fail to recognize that getting angry with a patient that has different cultural values goes against her goal of providing excellent care. Stage 2 involves implementing actions to avoid succumbing to impulses. We typically fail in one or both stages of the model. To address these shortcomings, neuroscience and psychology research suggest two distinct strategies: 1) monitoring for sources of conflict [e.g., implicit bias], and 2) top-down cognitive control of behavior. A survey of such strategies is presented below.

Top-down cognitive solutions

Solution 1: monitoring and labeling

To change behavioral responses, the behavior of concern must be noticed and monitored.¹⁸ Noticing and monitoring, according to models of cognitive control of behavior, are the first steps in information processing.¹⁷ For instance, people save funds for the future when they actively monitor how and where they spend their money. In the case of cross-cultural relationships, when sources of conflict and anxiety (e.g., differences in values) are identified and monitored, responses can be actively regulated. Change in behavior fails when noticing and monitoring fail.¹⁶

The challenge in fostering intercultural relationships is knowing what to monitor. The most important factor to monitor in cross-cultural relationships is one’s own emotional responses to out-group members. Are there certain groups, behaviors, values or way of thinking that irritate, annoy and innerve you? Signs to look for include the cues and antecedents to these feelings, including people, time and location when these feelings arise. Honest and sincere reflection is essential to pinpointing the source of the emotional arousal.

Monitoring moves decision-making from the reactive, emotional part of the brain (limbic system) to the executive, rational part of the brain (PFC). Recent research has shown that by increasing activity in the pre-frontal cortex while suppressing limbic activity, emotions can be monitored, and, as a result, labeled.¹⁹ This classification of emotions results in less limbic activity, which helps to prevent an immediate emotional response.

The concept of “theory of mind” also sheds light onto this dilemma. Theory of mind is the ability to understand others’ emotions, values, intentions and motivations.¹⁵ By better understanding another person’s viewpoint, including value system and beliefs, one can monitor and use this information to make better decisions in social encounters.¹⁵

Cultural value dimensions systems help us identify and understand how and

TABLE 1
Comparison of Cultural Values Dimension Systems Developed by Trompenaars and Hampden-Turner²⁰

Universals	Particulars
<p>How much individuals prefer rules over personal relationships</p> <ul style="list-style-type: none"> • Rules and regulations should be strictly applied to everyone • Equality for all individuals • Clarity is desirable 	<ul style="list-style-type: none"> • Personal relationships take precedence over social regulations • Application of rules varies by people or personal situations • Emotions are valued • Accuracy is sought • It is desirable to have a self-organizing system
<p>Specific values</p> <p>How much individuals are direct, precise or indirect in relationships</p> <ul style="list-style-type: none"> • People are straightforward and direct • Rules are arbitrary and unenforced • People are hard, serious and pragmatic 	<p>Cultural preferences</p> <ul style="list-style-type: none"> • Deference is significant • Being slow and going through the proper protocol is considered polite • Rules and relationships are fluid and subjective • People are friendly to everyone, albeit people • People are relaxed, adaptable, open
<p>Affective</p> <p>How much individuals express their emotions</p> <ul style="list-style-type: none"> • Emotions are under control • Emotions are not expressed in relationships • Communication is indirect and noncommittal • Nonverbal communication is important • Dealing with emotions is a complex task • Emotions are not expressed in relationships • Emotions are not expressed in relationships 	<p>Neutral</p> <ul style="list-style-type: none"> • Emotions are valued • Direct communication is preferred in relationships • Emotions are expressed in relationships • Emotions are expressed in relationships • Emotions are expressed in relationships • Emotions are expressed in relationships
<p>Autonomous</p> <p>How much individuals value a person's achievement or progress</p> <ul style="list-style-type: none"> • Focus on doing better • Achievement is a goal • Achievement is a goal • Achievement is a goal • Achievement is a goal • Achievement is a goal 	<p>Ascription</p> <ul style="list-style-type: none"> • Relationships are important • Relationships are important • Relationships are important • Relationships are important • Relationships are important
<p>Sequential (hierarchical)</p> <p>How much individuals are oriented towards time commitments</p> <ul style="list-style-type: none"> • Time is a resource • Time is a resource • Time is a resource • Time is a resource • Time is a resource 	<p>Synchronic (polycentric)</p> <ul style="list-style-type: none"> • Time is a resource • Time is a resource • Time is a resource • Time is a resource • Time is a resource
<p>Individualism</p> <p>How much individuals value acting as an individual or as part of a group</p> <ul style="list-style-type: none"> • Individuals are valued • Individuals are valued • Individuals are valued • Individuals are valued • Individuals are valued 	<p>Collectivism</p> <ul style="list-style-type: none"> • Groups are valued • Groups are valued • Groups are valued • Groups are valued • Groups are valued
<p>Materialism</p> <p>How much individuals believe they are in control of their own lives</p> <ul style="list-style-type: none"> • Control is a goal • Control is a goal • Control is a goal • Control is a goal • Control is a goal 	<p>Fatalism</p> <ul style="list-style-type: none"> • Control is a goal • Control is a goal • Control is a goal • Control is a goal • Control is a goal

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which cultural values and beliefs influence and shape behavior. Various systems are available in the literature, including frameworks by Hofstede and Trompennars and Hampden-Turner.²⁰ The latter system is based on seven value dimensions, which are universalism vs. particularism, specific vs. diffuse, affective vs. neutral, achievement vs. ascription, sequential vs. synchronic, individualism vs. collectivism, and internal vs. external (**Table 1**). Hofstede's system includes low or high uncertainty avoidance, power distance, masculinity and individualism.²¹

TABLE 1. [Click to enlarge](#)

Cultural value systems allow us to analyze behavior generated by values on a continuum and create a framework for cross-cultural labels, which can then be attributed to a particular cross-cultural situation. These dimensions provide a point of reference for monitoring what is important for individuals from different cultures, allowing practitioners to identify conflicting value systems and worldviews as proposed by "theory of mind." Upon the recognition of differences, new responses can be shaped and implemented. For instance, in Case A, Horacio is acting based on particular and ascriptive value systems, requesting the doctor to make exceptions (particular) because he is a religious leader (ascriptive). Horacio, a Brazilian, also tends to behave on the particular end of the particular vs. universal continuum, whereas Americans (the doctor in Case A) tend to be more universal (i.e., rule-oriented). By understanding and monitoring the situation for different value systems, the doctor could have understood Horacio's viewpoint and devised a compromising solution. Instead, she became frustrated with the request for exceptions and stood her ground more firmly.

In another example, Case B, the doctor was frustrated with Norma because her family's behavior was making the eye exam longer (synchronic cultural orientation, many things happening at the same time). Without having the knowledge to describe and understand what is taking place, his frustration increased. However, by having the label of synchronic vs. sequential available to him, he can classify his patient's behavior as a typical synchronic behavior, leading him to new levels of understanding of the situation at hand. By labeling behavior based on a continuum, and not on absolutes, we can better understand which value system is at play and then plan accordingly in how to better address the situation.

Solution 2: abstract, high-order thinking

Research conducted by Fujita and colleagues proposes that abstract thinking and how we construe and interpret events are essential to self-control.²² They conclude that when people are encouraged to engage in high-level, abstract thinking about why they should engage in desirable actions (for instance, treating patients from different ethnicities with respect) as opposed to how (how do you treat them equally), self-control increases.

Values — both personal and professional — and a sense of duty, as outlined in the professional oath that optometrists and other medical practitioners vow to abide by, are examples of higher-order, abstract thinking. This type of thinking allows practitioners to shift attention from immediate emotional states to a larger framework that speaks to the practitioner's *raison d'être* (reason for being).²³ For instance, a practitioner who is frustrated with a perceived low-competence and low-warmth patient may bring to mind that "all patients should be treated equally."

Solution 3: mental contrasting and implementation intention

Mental contrasting is fantasizing about an outcome and anticipating potential hardships during implementation.²⁴ It is the process of contrasting a desired goal with reality. Studies have shown that mental contrasting is a powerful and effective strategy for goal achievement, and is even more effective when coupled with the mental commitment to pursue a goal, also referred to as implementation intention.²⁴ One very effective implementation intention strategy is the "if, then" strategy. After anticipating the potential issues that may be encountered while pursuing a goal, one anticipates how to deal with these difficulties. "If, then" statements take the form of: If X happens, then I will do Y.

In Case A, let's assume the doctor's goal is to provide excellent care to her patients (fantasizing). Stating an intention, however, is not sufficient. She must then anticipate potential difficulties during implementation, that is, bring her goal to reality. For instance, the reality of cross-cultural encounters is that they can be frustrating and difficult and clash against our value system. Therefore, the doctor could develop an "if, then" strategy to deal with the situation. For example, "If I start to get frustrated, then I will try to identify what cultural dimensions exist." Or, "If I begin to get frustrated with others, then I will remind myself to take a step back and calm down."

Solution 4: reappraisal

Cognitive reappraisal helps us better understand how a problem could have been avoided or better managed. Reappraisal is a technique used to change the meaning of events, which in turn changes the interpretation of and response to the

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event.²¹ For example, cognitively reappraising an emotionally upsetting image as a neutral image can allow one to overcome the emotional arousal that would have been stimulated by the image.¹⁷ Reappraisal demonstrates a decrease in limbic activity while increasing pre-frontal cortex activity.

In Case A, the provider interpreted Horacio's request as an insult. From the provider's perspective, Horacio was asking for a personal favor and "*just because Horacio is a religious leader that does not give him the right to ask for exceptions or for me to lie,*" the provider thought. In this case, a person can reinterpret a difficult cross-cultural situation by appraising it as a situation typical of cross-cultural encounters when different value systems are at play, and not take it personally. One can *reappraise* a situation as a learning opportunity. In possession of knowledge about cultural values dimensions, one can ask questions such as "why is this person acting in such a manner?" "What cultural value is guiding this behavior?" "What can I learn from this encounter?"

By using the strategies proposed above, the clinician is deliberately moving activity from the emotional to the rational centers of the brain to deal with emotion-evoking cultural encounters. As a result, he or she can lower the emotional temperature during a cross-cultural encounter and open new paths for communication and understanding. Teaching this generalized approach of regulating emotional responses will impart a skill to optometry students that they can use in any situation. It does not rely on them having had exposure to a patient's particular culture or background.

Conclusion

Cultural differences play a major role in how patients and doctors interact with each other and the environment at large. Often, these differences increase the brain's emotional response and potentially result in negative behaviors that are counterproductive to effective patient care. Because these emotional responses originate as part of the human need to maintain homeostasis and categorize, they can be regulated through neuropsychological strategies. We propose including these strategies in optometry schools' cultural competency curricula to augment the current approaches. Utilizing these generalized strategies (monitoring for implicit biases, abstract thinking, mental contrasting, reappraisal and top-down cognitive control of behavior) can help clinicians and students regulate emotional responses, thereby promoting effective behaviors and ultimately improving doctor-patient relationships and care. The relationship between the emotional brain (limbic system) and the rational brain (prefrontal cortex) in cross-cultural settings requires further understanding. Although the strategies described here have proven effective on an individual basis, additional research is needed to demonstrate that integrating all of these strategies will result in more effective cross-cultural patient care. It is hoped that this presentation of strategies will incite further research into the cultural neuroscience of patient care.

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