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## **A Latina Pursuing Her Medical Dream (MD)**

This counterstory focuses on the college environment and microaggressions that a first-generation college Latinx premed student encounters in higher education. The tool of storytelling, a technique that centralizes the stories and voices of marginalized groups (Delgado, 1989), is employed to share the counterstory of Diana. Diana and her family come from a Mexican-American background and currently reside in Los Angeles. Her family experienced early on interactions with healthcare professional because her brother was born with cerebral palsy. Both her family and early exposure to health issues influenced Diana's interest and pursuit of medicine. This counterstory begins with Diana's first day of college and reveals Diana's classroom experiences in Chemistry 100.

Using Critical Race Theory, specifically the tenet of intercentricity of race and racism is used in the storytelling and analysis in order to unpack Diana's pursuit of becoming a doctor. Diana's counterstory goes beyond the traditional narrative of Science, Technology, Engineering, Math (STEM) students of color as underrepresented in STEM and academically lagging behind in the STEM field. Instead, the counterstory reveals obstacles encountered in a predominantly white institution, such as issues with the campus climate and science culture that contribute to students of color academic self-concept and persistence in the sciences. Also, this narrative highlights the supportive role of Latino parents that is often missing from the Latinx undergraduate college experience.

### **Diana Pursuing Her Medical Dream**

The time finally came for Diana to go off to college. Diana was excited and nervous; she was the first person in her family to go to college.<sup>1</sup> Leaving home was going to be difficult for her, but her parents have always reminded Diana about the

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<sup>1</sup> Like many Latinx students in higher education, Diana is first in her family to attend college. Her college experiences in college differs from the traditional college student (Gándara & Contreras, 2009). Latinx students in higher education are 44% first-generation college status (Excelencia in Education, 2019).

importance of education in the United States. Diana is Mexican-American and grew up in the city of Los Angeles. Her parents migrated to the United States from Mexico in the 1980s. Both of her parents work two jobs to support the family. She has two younger brothers—Javier is in high school and Luis is about to enter high school. Luis was born with cerebral palsy, a neurological development disorder, that impacted his bone development and life abilities. Luis's condition impacted the whole family, especially Diana. Since her parents worked day and night, as the eldest sibling she was the main source of support in the household for both of her younger siblings. Diana helped take care of Luis at home and attended every doctor visit with him. During the doctor visits, Diana translates in Spanish for her parents, because the doctors do not know how to speak Spanish.<sup>2</sup> Diana feels uncomfortable at times translating and wants to make sure that every single word is translated correctly. She learned a lot from her family experiences in the hospital and this is where her passion for medicine sparked.<sup>3</sup> Diana's dream is to become a doctor in the future to help Latinx families like her own. But Diana does not know any doctors and

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<sup>2</sup> The latest report from UC Latino Policy & Politics Initiative (2019), provides data on physician language concordance. The rate of Spanish physicians to Limited English Proficiency (LEP) population is 959 to 100,000; Spanish and Lao have the lowest rates, (UC LPPI, 2019). UC Latino Policy & Politics Initiative (2019) states, "There is an overwhelming need for Spanish language proficient physicians in rural California and in counties with Latino populations that comprise half or more of the general population" (p. 4).

<sup>3</sup> The family background provides a greater understanding of why students from an underrepresented background pursue medicine. Diana's family experiences with non-Spanish physicians have impacted her motives to pursue medicine in order to become a bilingual and bicultural physician. These experiences and motives are different from the dominant narrative of premed students, which is a science major student whose parents are physicians.

she is not sure how to become one.<sup>4</sup> All she knows is that she needs to be a science major once in college.

### **First Day of College**

The first day of classes, Diana arrived to a large lecture hall for her Chemistry 100 course.<sup>5</sup> There were over 300 undergrads in the course. Diana did not know where to sit, she did not know anybody and it seemed to her that everyone was in groups talking to one another. She finds an empty seat and asks the student next to it if she can sit there, but they tell her that they are saving the seat for someone else. Diana feels embarrassed and continues to walk, she finds another empty seat but again, she is told that the seat is taken. Finally, she decides to sit in the back row of the classroom. Diana looks around, to find a familiar face, a friendly face, a face that looks like her. However, as Diana looks around the classroom, she realizes that everyone in the classroom is either White or Asian. But Diana keeps looking around and gets excited as she spots across the room another Latino male student and a Black female student.<sup>6</sup> She tells herself that for the next session, she will go sit with them on the other side of the classroom.

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<sup>4</sup> California has a Latinx physician shortage. California only has 5% Latinx physicians to serve the increasing Latinx population of 40% Latinx community (Coffman, Geyn, Fix, & Lee, 2017). As the population becomes more diverse, the need for culturally competent and bilingual physicians grows in the United States. Diversifying the physician workforce is key to serving the Latinx community and reducing health disparities (Vogt & Taninco, 2008). For instance, students from underrepresented backgrounds are more likely to work as a physician in underserved urban and rural communities (Mitchell & Lassiter, 2006).

<sup>5</sup> Premeds undergrads follow a prescribed premed curriculum which includes a heavy emphasis on science courses such as chemistry, biology and physics. These classic science courses are part of the historical curriculum of medicine that centers a positivism point of view on educational matters as objective.

<sup>6</sup> The lack of diversity of underrepresented students in higher education not only reflects the lack of students of color in the classrooms, but also the longstanding impact of admissions policies. For instance, California universities cannot use race and ethnicity as part of the application review process through the passing of Proposition 209. Proposition 209 had and continues to have an impact on enrollment of students of color in higher education (Contreras, 2005).

Class begins promptly at 9 a.m., when an older white male walks into the classroom and begins writing on the board. He says, "My name is Dr. Peterson and this is Chemistry 100." Dr. Peterson goes on to tell the students that this is an important class for all the premeds. He states, "If you don't pass this course with a B, then you should forget about a career in medicine." Diana, immediately gets nervous, she sits up and begins to write on her notebook, *Don't Fail*. Then, Dr. Peterson states that this course is based on a curve<sup>7</sup>: "You will have two exams and each exam is based on a curve, your grades will be on a curve, whatever the highest grade is in the class will be the maximum grade." Dr. Peterson warns the students, "You all must really think about whether or not to remain enrolled in this course, half of this class always fails and my exams are difficult. So, your only option is to sink or swim in this course."<sup>8</sup>

### **Self-doubt and Family Support**

Diana immediately begins to reconsider the Chemistry 100 course. She wonders, should she drop the class? Should she change her major? Is she cut out for a career in medicine? Is she smart enough? Diana looks around the class and thinks to herself, "I am going to struggle." She wants to get out of her chair and go back to her dorms. But she tells herself that she can't. Instead, Diana reminds herself that she can do it and her dream is to become a doctor, to be that doctor that her family desired, that knows Spanish and knows to work with Latino

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<sup>7</sup> Students from underrepresented backgrounds attain lower grade point averages in science courses, which are known as "gateway" or "weeder" courses for weeding out students from pursuing the sciences (Alexander, Chen, & Grumbach, 2009; Barr, Gonzalez, & Wanat, 2008; Tyson, Borman, & Hanson, 2007). For premeds, science course grades and grade point average (GPA) are significant in determining medical school admission.

<sup>8</sup> The "sink or swim" approach reflects the faculty's pedagogy and beliefs about education. Faculty are representative of the university and they construct the classroom environment. The use of a curve promotes students competing against one another instead of fostering a collaborative learning environment. In addition, the professor did not validate students' academic abilities; rather, the professor warned the students that half of them will fail the course. Although, Diana is academically capable of excelling in the science course, we begin to see Diana doubt her academic abilities. Diana's doubts arise, not because of the course content, but because of the competitive environment that is created by the faculty.

families. Diana is feeling nervous and is not enjoying her time in the class, but decides to stay in the course.

After class, Diana walks to her dorm and calls her mom. Diana says to her mom, “Mom, hoy no me fue bien, y creo que voy a dejar la clase de Chemistry.”<sup>9</sup> Her mom responds, “Pero hija, como puede ser? Tú eres inteligente, ila más inteligente! Toda la familia te está apoyando y rezando por ti, y con Dios tú puedes hacer todo. Tu padre y yo nos hemos sacrificado mucho por ti, tienes que seguir échandole ganas.”<sup>10</sup> Diana immediately feels comforted from her mom’s words.<sup>11</sup> Diana tells her mom that she will continue in Chemistry.

## Science Lab

The following day, Diana begins the lab portion of the Chemistry 100 course. Diana enters the lab and sees a young graduate student, he is the Teaching Assistant (TA) standing in the front of the classroom. The TA explains that the students need to form small lab teams and complete all of the day’s tasks. Again, Diana is feeling uncomfortable—she doesn’t know anyone in the classroom and groups begin to form quickly. Diana turns to her side, she introduces herself and says, “Hi, I’m Diana, can I join your group?” The group of students look at Diana with a confused look, they ask her, “Did you take AP Chemistry and what was your score?” Diana tells them, “No, I took honors Chemistry because my school didn’t offer AP Chemistry.”<sup>11</sup> The

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<sup>9</sup> Translation: “Mom, today did not go well and I am thinking about dropping my Chemistry course.”

<sup>10</sup> Translation: “But my dear daughter, how could this be, you are so intelligent, the most intelligent person. The entire family is supporting and praying for you. With God, you can do anything. Your family and I have sacrificed so much for you, you need to keep moving forward.”

<sup>11</sup> The dialogue between Diana and her mother provide a glimpse into the Latinx maternal role in higher education. Diana’s mother’s words of encouragement serve as a source of support for Diana. Students of color have various familial assets that provide support to students (Yosso, 2005). Yosso’s Community Cultural Wealth model (2005) views students of color entering the college environment with cultural assets that are not traditionally seen by educators as important in a student’s trajectory in schooling. Familial assets include precollege network of students such as family and extended family support via storytelling, sayings/*dichos*, advice/*consejos*, and more. *Dichos* and *consejos* are sayings and familial stories that provide strength and guidance (Delgado Bernal, 2001).

group tells her, "We need smart people in our group, you can't be in our group."<sup>12</sup> Diana quickly feels ashamed and goes to another group. Diana ask, "Hi, can I join your group?" The group of students just look at her and say, "No, our group is full." Diana is feeling frustrated and now just sits in her chair. The TA looks around and states, "if you don't have a group come up to the front." Diana gets up and goes to the front. Three students also walk to the front. The TA states, "you all are now a group." Diana introduces herself to the group and they all begin to do their lab work. Diana's group members do not talk to one another. Before the class period ended, one of the group members ask, "did you all finish?" and the rest of the group said "yeah, we are done." Diana tells the group, "Yeah I finished too," but she is actually confused about the lab assignment and some of the science terms. Diana does not tell her group she is not done. She decides to finish later in the night.

## **Final Grade**

Fall quarter goes by quickly and soon the ten weeks are over. Diana did not like the class. She hated going to lecture and lab because she always felt behind and she did not feel comfortable asking questions. Every time she went to class, she felt that she had to prove her academic abilities and felt isolated in the classroom.<sup>13</sup> She made two friends in the class, but one of

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<sup>12</sup> Diana's response to her classmate highlights the issue of access to AP courses. In her high school, AP courses were not an option. Latinx students are disproportionately represented in Advance Placement (AP) courses due to lack of AP course offering in schools that are in low-income neighborhoods and majority Latinx and Black students (Solorzano & Ornelas, 2004).

<sup>13</sup> This section highlights microaggressions inside the science classroom. Diana's classmates refused to let her join their lab group based on their assumptions of her academic abilities and appearance as a brown student on campus. Diana is told that they are looking for a smart student to join their group; in other words, an assessment has been done on Diana based on her lack of access to AP courses. This is an example of an interpersonal microaggression, which attacks a Latina's presence in the campus (Yosso, Smith, Ceja, & Solórzano, 2009). Using a Critical Race Theory framework, the tenet of centrality of racism in U.S. society (Bonilla-Silva, 1997) allows for an analysis of the peer interactions and recognition of the existence of racial microaggressions inside the classroom. The CRT tenets allows us to understand the historical context of racism as part of the campus history,

them, a Black female dropped out of class after the midterm. Diana struggled the whole quarter with the material. In her first exam, she received a low C, for her second exam a D. Her final grade was a D. Diana did not pass the course.<sup>14</sup>

## **Conclusion**

This counterstory is used to provide greater insight to the lived experiences of a Latinx premed science student in higher education. This counterstory is inspired by my students that I have had the privilege working and mentoring in their pursuit of medicine. When writing Diana's story, I applied my professional experience and personal experience of racism I encountered in higher education. I employ the concept of "cultural intuition" by Delgado Bernal (1998) which recognizes that Chicana/Latina scholars bring with them their personal and professional experiences to the research process and writing.

My goal in writing and sharing Diana's counterstory is to honor my students' racial experiences, dreams, and to challenge

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culture and policies of institutions of higher education (Hurtado, Clayton-Pedersen, Allen, & Milem, 1998). The lack of diversity on the campus is part of the historical exclusion through admissions policies. Furthermore, the experiences and perceptions of microaggressions in the classroom environment impact students' persistence in a science major (Hurtado & Carter, 1997). Thus, a racial analysis of peer interactions through a CRT framework is needed in order to untangle and bring to light the negative peer interactions and microaggressions inside the classroom environment.

<sup>14</sup> Diana's perceptions and feelings of proving her academic abilities and isolation contribute to her sense of belonging on campus and in the sciences. Sense of belonging is a complex psychological measure that captures students' perceptions of their environment (Hurtado & Carter, 1997). Sense of belonging contributes to both persistence and retention of students of color in higher education (Hurtado & Carter, 1997; Tinto, 1993). In addition, Hurtado and Carter highlight the important role of faculty in creating meaningful relationships between faculty and students. Thus, faculty play an important role in developing a student's sense of belonging.

The decision to end this counterstory with the final Chemistry grade of D, a non-passing grade, was chosen in order to remain authentic to the final classroom barriers that many students of color experience in the sciences. This is not the final point of the story. Grades in science courses are key in students' persistence in science majors (Barr et al., 2008). Academic challenges in the early science courses during freshmen and sophomore years leads to students changing both their major and their career paths to pursue a non-STEM career (Crisp, Nora, & Taggart, 2009).



readers to understand holistically the racial lives of students of color. Using a Critical Race Theory framework, that centers the racialized experience of students of color, the tool of storytelling is employed to center the voice of Diana and her college experiences. This narrative provides a different lens to the dominant story of academically underprepared students of color in the sciences that leave the sciences because of their low grades. The dominant narrative defines Latinx students by their academic metrics such as GPA and SAT scores. Diana's counterstory reveals racism that Latinx students face in the classroom environment and that impact their academics and engagement with the university. Diana's narrative shifts the focus from student's academics to institutional matters of racial campus climate.

The STEM learning environment is an area that needs further research because of the impact on students' of color persistence in STEM. In Diana's narrative, the white male faculty constructed a competitive learning environment that created competition amongst the students through the grading system of grading on a curve. A competitive learning environment in the sciences may promote individualism, which may impact persistence of Latinx STEM students. Also, higher education researchers have stressed the importance of interactions between students and faculty members for retention and student development (Astin, 1993; Pascarella & Terenzini, 2005). The messaging of the professor has a great impact on Diana's academic self-concept, as her first concerns immediately turn towards failure and reconsidering her major and career goals. Thus, the STEM environment and faculty interactions must be examined through the perspective of students of color in order to reveal occurrences of racism, microaggressions and culture clash within the STEM learning environment.

Lastly, Diana's counterstory is a story of resistance of Latinx premed students in higher education. Students of color enter higher education with assets such as familial assets that provide sources of support to students (Yosso, 2005). Latinx familial assets includes words of encouragement, advice/*consejos* and sayings/*dichos* within the Latinx culture. Diana's narrative demonstrates the pivotal role of her mom's words in her persistence in the Chemistry course. The traditional dominant views on first-generation students and their families'

knowledge on college experiences are presented as limited, uninterested, and uninvolved. For this counterstory, Diana's mother has no experience with the college environment, but Diana's mom is still able to be a strong source of familial support. Although, Diana had many personal and academic struggles in higher education, she persisted through the premed science courses. Her academic struggles continued in medical school, but she persisted and obtained her Medical Degree (MD). Diana is currently a Family Medicine Resident Physician in the Los Angeles area. She is now a practicing physician in a Latino community.

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