Global Health Internship Report for Piracicaba, Brazil

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Introduction

I was chosen to be the anthropology global health intern for the Spring 2023 semester. I accompanied the student organization International Medical Outreach (IMO) to Brazil. We were in a small city called Piracicaba, which is situated in the Brazilian state of São Paulo. I was very excited to have been chosen for this position, as I felt like it suited exactly what I want to do as my profession: being a doctor and helping different communities around the world. Being able to enter the hospital in São Paulo with an anthropological viewpoint gave me a different perspective on the patients. In order to do so, I met with Dr. Shana Harris and discussed many articles about different aspects of Brazilian life, culture, and health with her. In those readings and weekly discussions, I started to formulate ideas about what I wanted to research while in Piracicaba: women's health issues. With the guidance of Dr. Harris, I narrowed my research question to the following: Does gender/sex affect different aspects of a person's health in Brazil?

Before I went to Brazil in May 2023, I attended IMO health trainings. In one of those training sessions, a member from the board spoke about going into different cultures with open eyes and no judgment. He described how people look at the world differently around the world or practice medicine differently and it is important to go into different cultures without preconceived notions or judgment. This health training really stuck out to me as this is one of the fundamental concepts that anthropologists learn in the beginning of their studies: cultural relativism. Cultural relativism asserts that there is no "absolute truth" and no one culture or peoples is superior to another (Price 2002: 1; Zechenter 1997). One must enter a new or different

environment with this belief and with no preconceived notions (Price 2002). I thought this training was a great mixture of anthropology and medicine, looking at people as a whole instead of just as a symptom.

I was the only intern for this trip, but I was not alone because I accompanied 13 members from IMO. Together we shadowed doctors in the Unimed Hospital, alongside two Portuguese translators the hospital provided for us. With them we observed patient interactions with doctors, visitors' interactions with patients and doctors, and different types of surgeries. We also spoke to the administrative staff about how different Unimed is to other hospitals in the area. They explained to the group that Unimed is a private hospital, and most people in São Paulo could not afford it. After our hospital days, we volunteered at a senior retirement facility in Piracicaba. There we interacted with the residents, from speaking to them about their hobbies to dancing with them during live music. This shadowing of doctors and interacting with the seniors was the basis for my anthropological research in the field. I was also able to interview the doctor that helped put the whole shadowing program together.

Background[1]

There are many factors contributing to different health outcomes, such as socioeconomic status, race, geography, sex/gender, etc. A person's sex assigned at birth affects their genes, epigenetics, and hormones, which in turn can have an effect on the diseases with which that person is diagnosed (Mauvaus-Jarvis et al. 2020). Similarly, a society's gender constructs influence how healthcare providers, the environment, and overall medical management relate to

[1] To prevent mistranslations and to keep interviewees and translators on the same page, I decided to designate the people I was researching by sex and not gender. As a result, when a man or a woman is spoken about in this paper, I am talking about cis men and cis women, people who identify with the gender that they are assigned at birth. I acknowledge that there are more than two genders and that LGBT+ care is extremely important but that is a very extensive topic and would need to be researched differently.

pathobiology (Mauvais-Jarvis et al. 2020). All of these are important factors that contribute to people's health, but a factor that is not always discussed is how often one health condition can contribute to others. Studies have shown that Brazilian women with poor heart health had a higher risk of depression associated then Brazilian men who had the same poor heart conditions (Bousquet-Santos et al. 2020). This link is not unique to depression, as there is evidence that women are twice as likely to have a mental health condition than men (Bousquet- Santos et al. 2020; Vaccarino and Bremner 2017). Looking into mental health even further it is shown that the possible reason for why more women are diagnosed with mental health problems is not a coincidence because men and women do not experience stress in the same way (Bousquet-Santos et al. 2020; Oyola and Handa 2017; Vaccarino and Bremner 2016) This difference in mental health conditions is not exclusive to Brazil; a higher rate of depression in women is found in many places across the globe (Vaccarino and Bremner 2016; Weissman et al. 1996).

Mental health is not the only area where men's and women's health differ. For instance, Brazilian researchers have found a gap between the amount and frequency that Brazilian men drink versus Brazilian women. This gap used to be quite significant, with men drinking substantially more than women; this trend is still seen in the older generations (Wolle et al. 2011). However, in recent years the number of women consuming alcohol has increased exponentially, not without detrimental health effects. Women's bodies are more susceptible to adverse effects of alcohol consumption. Women do not have as many alcohol dehydrogenase enzymes than men, meaning that women have higher blood alcohol levels than their male counterparts when both drink the same amount of alcohol adjusted for body mass. This higher blood alcohol level can lead to brain impairment, hepatic diseases, reproductive dysfunctions, and alcohol dependence (Wolle et al. 2011). This is not to say that men are "better" drinkers than

women. There are higher rates of excessive and addictive drinking found in men then there are women. However, this can be accounted for by different Brazilian societal norms, specifically men's and women's gendered norms, such as bonding with friends, managing stress levels, sexual experiences, and taking sexual risks (Wolle et al. 2011).

With the uptake in more women drinking, researchers have looked for the reasons why this is the case. Why men drink and have been drinking for a long time is understood, but not why more and more women joined the drinking culture in Brazil. Wolle and colleagues (2011) found that there is a cultural aspect to why women drink, and it is partly because the culture around drinking in Brazil has changed. It is now more socially acceptable for women to go out drinking, which was previously thought of as a man's activity. As a result of women joining the work force, it is now more socially acceptable for them to join in on social drinking, as both working and drinking were previously associated with men.

Another factor in the boost in more women drinking is that they are now able to have better access to birth control. By women overseeing their sexual health, they are decreasing the gender disparity (Wolle et al. 2011). This disparity decreases when women gain control of what they do with their own bodies. Whether related to their sexual health, general health, or joining the work force, they have more options thus lessens gender disparity. When that decreases, activities previously associated with particular genders are no longer exclusive to those genders, and more people start to break social norms.

Despite the fact that more Brazilian women have the option to use birth control, this does not mean that they are fully in control of their health decisions. This point brings me to the unexpected second part of my research: women's choices in regard to obstetrics care. Brazil has one of the world's highest cesarean sections (c-section) rates (Paixao et al. 2021), with 93.8% of

births in the private sphere being c-sections and 55.5% of births in the public being c-sections (Oliveira et al. 2016). Many obstetricians/gynecologists (OBGYNs) maintain that more women giving birth via c-section of their own volition is a sign that they are making their own healthcare decisions (Brigagão et al. 2018). OBGYNs claim that Brazilian women fear the hazards associated with vaginal childbirth. Their fears include the belief that their hips are not wide enough to deliver big babies, the pain associated with vaginal birth, and the "damage" that happens to their vagina because of doctors performing routine episiotomies (Brigagão et al. 2018). However, researchers are finding this to not be the case. In fact, often times women who end up getting a c-section intended to have a vaginal birth. Especially in the private medical sector, around one third of women in the beginning of their pregnancy elect for a c-section, one half wanted a vaginal delivery, and approximately 17% were unsure what they wanted (Barros et al. 2011). At the end of their pregnancy, all of the women who wanted a c-section received one as well as 56% of women in the group who wanted a vaginal birth originally and around three quarters of the women in the group who had yet to make a decision (Barros et al. 2011). This begs the question: Why? Some researchers think it has more to do with the doctors doing the procedure than the women giving birth. They conclude that OBGYNs think c-section have fewer complications and therefore safer for the woman and baby, or they just do not want to take the time to deliver a baby vaginally (Barros et al. 2011). On this last point, vaginal birth takes time; it is unexpected and is usually not scheduled, except in the cases of planned inductions. C-sections, on the other hand, can be done at any time on anyone's schedule, with research showing that most c-sections are done in the middle of the week and only in the middle of the day (Barros et al. 2011). A doctor can perform many c-sections in one day and still be home for dinner; this is not the case with vaginal delivery.

This is not to say that all women are being forced into having a c-section or that women who have them regret it. In fact, there is still a high percentage of women who opt to do a c-section; as explained, above around one third of women plan to have a c-section (Barros et al. 2011). This may be due to past Brazilian laws where women were not allowed to be sterilized unless two doctors confirmed that having another baby would be detrimental to her health (Barros et al. 1991). The law also stated that women required their husband's approval to undergo the procedure and that the age of consent was 25. As a result, private doctors would often do tubal ligation, the only legal way to voluntarily sterilize a woman, during the c-section (Law Nº 9,263 1996). Patients would pay out-of-pocket, and Brazilian doctors could do this because they believed that having one c-section puts a woman at risk for life threating complications with other children (Niino 2011). This reasoning is possibly why c-section rates are higher in private medicine than in public, as many people in the public system cannot afford to pay the fee. However, as of 2023, women no longer need their husband's consent. The sterilization procedure can be done immediately following the c-section, and a woman who is 21 years old or has already had two live births can request the procedure (Law Nº 14,443 2022).

Participant Observation Regarding C-sections

This background information is useful for contextualizing my participant observation. While in Brazil, I was fortunate enough to observe a c-section in person, standing right there in the operating room (OR). It was definitely one of the highlights of my trip. Although, looking back at the experience with the information I have learned, I see the c-section much differently now. While I was in the OR, I enjoyed just being in the moment when a life being brought into the world, but after the baby was taken out, they did not immediately close the woman post-surgery. Instead, they started a different procedure; the OBGYN did an oophorectomy (removal

of one or both ovaries). I did not think much of it at the time, other than it is very nice that the OBGYN did that because this woman would not need to have open abdominal surgery twice. The doctor told us that this woman had four kids (this being her fourth child) and this was her second c-section. She was done and did not want any more children. We, the students, understood that to be her right to choose if she wanted her ovaries removed. But, after gathering all the data and writing this report, I am interpreting my participant observation differently. I am now seeing the procedure from both before and after the laws changed. Previously, it was not fully this woman's right to choose; she had to have this procedure done at that moment while still open on the operating table because requesting sterilization later became a much more difficult. However, she had this procedure in 2023, so instead of having a stealthy tubal ligation and going through the trouble of seeing two separate doctors, she did exactly what my background research showed: she chose to do the sterilization right after her c-section. She chose to have a c-section followed by tubal ligation because she had the means and opportunity to have surgery in a private hospital with a private doctor. This moment truly sticks out to me more than before because now I have the background information to support my observation. I can understand her motivations more and see a clearer picture of that situation.

Throughout the internship, the IMO members and I were not just wandering the hospital on our own. The hospital supplied us with translators to help us understand what was going on and to talk to patients and doctors. Most of the translating for my group was done by Lucas, IMO’s then president, and Rebecca, a translator provided by Unimed. The day before we observed the c-section, Rebecca introduced the group to one of the main OBGYNs at Unimed, Dr. Nazir. During a conversation with him, I brought up the fact that Brazil has one of the highest c-section rates in the world, and he agreed that he mostly performed c-sections and few

vaginal births. He was not really sure why this was the case, but he thought it had something to do with Brazilian culture; it was just not in their culture to have vaginal births. He also said that, while he encourages women to choose for themselves, he always mentions that they can choose to have a vaginal birth. He said that slowly more women are choosing to deliver vaginally but most still decline.

Rebecca was translating for Dr. Nazir during this conversation, and she said that Dr. Nazir delivered her and some of her siblings. She also said that Dr. Nazir was not like other OBGYNs because, according to her, he always asks the patients what they want. He wants them to feel the power of choice, and he will try his best to make their choices a reality. She said that not all OBGYNs will perform vaginal births, and that a lot of them are lazy and just want to do the birth and then go home. Again, she made clear that Dr. Nazir did not do this.

While I did not have the opportunity to see this conversation between a pregnant woman and an OBGYN firsthand, I had to take Rebecca at her word. However, the next day I was privileged to see Dr. Nazir in action in the OR. He invited some of the students to watch a partial hysterectomy; a women had a huge tumor growing through her uterine wall that was causing her immense pain and bleeding all the time. Watching the procedure was one of the most astounding experiences of my life. At first, we all stood off to the side observing the surgery from a distance. But when Dr. Nazir pulled the uterus out, he laid it on a cloth for all of us to see. After we all looked, he picked up the uterus and cut right down the middle so we could see inside and also see how deep the tumor went. He then laid it back down on the cloth. After this, he told us all to put on gloves, and we all got to hold the uterus and really inspect it.

It was an amazing feeling to see where the center of life begins. While all this was happening, he told us about the surgery, answering any and all of our questions and making

conversation with us. Then he told a nurse to bring a stool over so all of us could peer into the woman's abdomen from above., He taught us about female reproductive anatomy and told us how he left her ovaries in, to help with hormonal control. The surgery was incredible, as was Dr. Nazir. I may not have seen him interacting with patients the way Rebeca described, but I could understand where she was coming from after this observation.

My participant observation contrasted with some of the background information I gathered on birth in Brazil. From Rebecca's secondhand account, it sounded like Dr. Nazir did not push his patients to have c-sections; it was quite the opposite. They made him sound very accommodating and wanting to take the time to deliver a baby vaginally if that is what his patients requested.

Participant Observation Regarding Men's and Women's Healthcare

While I was able to shadow many specialties at Unimed, such as respiratory therapy, cardiology, orthopedics, and briefly neonatology, there was no one specialty that had more women than men or vis versa. For example, in the respiratory therapy area, there were both men and women patients; no clear sex out ranked the other from my observation. Also, when the whole group observed surgery again, there was no clear distinction between the men and women. There were men that needed surgery just as much as women I saw this firsthand as the IMO members were allowed to observe different surgical procedures. My own group watched a femur repair on a woman, and the other group watched a gallbladder surgery. There was not one sex having more surgery than the other; it was overall the same amount.

There was no clear distinction between men and women until we arrived at Lar Betel, a senior home. IMO members and I took turns rotating through different programs that the senior

home offered, and one of these programs was physical therapy. The physical therapists said that women are much more likely to go to physical therapy, and they do so voluntarily. The men, on the other hand, did not. However, this changed when the home hired a male physical therapist, then slowly more men decided to partake in physical therapy. The physical therapists said that the men did not want to work with women physical therapists. They were not sure why; they did not know if it was because male patients did not feel comfortable with a women physical therapist or perhaps something else entirely. After speaking to the physical therapists, the senior home brought in a singer, which they often do, and the staff encouraged us to dance with the seniors. While most of the students did participate, men and women alike, only the women seniors danced with us. They even had male staff members there to encourage the seniors to dance, get up and move around, but still only the women danced with us. I am unsure why that was the case. Perhaps the men weren't not comfortable to dance, or perhaps they were less able to physically do so. There could even be a cultural reason. These activities at the senior home were enlightening for a few different reasons.

As discussed above regarding the consumption of alcohol, there are trends that are seen in older generations. The interactions at the senior home may be evidence of this. The older men not wanting to work with a women physical therapist or not wanting to dance with the IMO members, these may be habits of different times. It is important to acknowledge medicine and societies change, things were done differently in other generations and people need to take time to help older generations adjust to new circumstances. This is what Lar Betel did, although they had the female physical therapist, they understood that perhaps the male seniors were not as comfortable with her, to amend this they hired an additional therapist to help ease the male patients into physical therpy. With that said it is important to note that Lar Betel did not fire the

female therapist instead they added a male counterpart. Healthcare institutions, such as Lar Betel, need to understand that like older generations need different care than younger ones, there are instances when men and women's healthcare needs will be different, and they should be able to accommodate those differences and not just look at all people as one entity.

I also interviewed a Unimed doctor named Dr. Neph who spoke of the effects of gender/sex in healthcare. Dr. Neph has been a nephrologist for over 16 years. Although he works in a private hospital now, he has not always. As a result of attending public university, he began his career in the public sphere and then later moved to the private medical sector. After collecting his background information, I began asking Dr. Neph questions associated with my research question. Dr. Neph said that his patients were spilt evenly in terms of sex, as no one sex came to see him more than the other. When I asked him if there was a difference on how men and women's symptoms presented, he described how men often came in with symptoms such as throwing up, nausea, and/or having stopped eating or not feeling hungry. Women, on the other hand, had a loss of energy. He described it as the "whole package…they were slower very apathetic, more like a general thing."

One of the biggest differences that Dr. Neph said regarding men and women is their pain tolerance: "Women can actually tolerate pain better than men." He found that men will complain straight away if something is bothering them. They do not keep their discomfort to themselves, and it is "not just the pain, but like small symptoms." He further added that women can tolerate the pain for a long time. He gave the example of kidney stones, something he sees a lot of among his patients. He said that when a man has kidney stones, he needs more drugs. Women, on the other hand, will more likely keep it to themselves or just internalize their pain. Dr. Neph also

made it clear that there were some exceptions to this behavior, but clarified that there were cultural factors that influenced why men and women displayed their symptoms differently:

> Here in Brazil, we have a difference between women and men in work, so men work more than the women. Usually, he has the obligation of bringing money to the family so when he gets sick, it's like his life is over, depression, invalid men, and women we see different. Usually they are more confident, more hoping, hopeful.

Dr. Neph said this hopefulness actually helps with treatment; patients were more likely to have a better outcome.

Although very interesting to hear, Dr. Neph's assessment of men and women's pain is inconsistent with studies and research regarding women's pain. There have been multiple studies done that establishes women as experiencing "greater pain sensitivity, enhanced pain facilitation and reduced pain inhibition compared with men" (Bartley, Fillingim 2013: 56). If these studies conclude women exhibit more pain than men, it was intriguing to hear that Dr. Neph saw the opposite when it came to his patients. Having said that his evaluation is not unique, quite the opposite, it was shown that when people gauge men and women's faces when they are in pain, they had a more difficult time assessing when women were actually in pain (Riva et al. 2010).

There are many reasons why people discredit women's pain; a big factor being gender roles and norms. Society has a belief that women are expected to show when they are in pain, because of this healthcare providers will disparage women's pain and discomfort (Samulowitz et al. 2018). Healthcare workers do not see it as extreme because they have already mentally catalogued that being a woman, she is more likely to be distressed so her pain is not as genuine (Samulowitz et al. 2018). This gives these providers the ability to dismiss it and not actual regard these women as being in as much pain as they are.

In contrast when people assessed men’s faces in pain, they regarded it as them being in much more pain than the women (Coll et al. 2012). To such an extent that when women’s faces were shown they needed to have a much more intense face of suffering for people to recognize that they were in pain at all (Riva et al. 2010). This finding is consequential, because it affects the way healthcare providers treat women. As a result, providers do not see women as being in as much pain, they are less likely to receive pain medication. Furthermore, if they do receive pain medication, they would normally have to wait longer for it to be administered (Chen et al. 2008). It is fascinating to listen about the dichotomy between men and women's pain and also link it back to the interview with Dr. Neph, as there were similarities regarding what he was saying and what the research found. This is not to say that Dr. Neph is purposefully ignoring women’s pain, as the research shows often there is an implicit bias when it comes to assessing men and women’s pain (Chen et al. 2008). It is important to recognize that there is bias and there are factors that need to change in order to rid oneself of it.

As the interviewed continued, Dr. Neph said that women were more likely to develop different diseases, such as osteoporosis and hyperthyroidism. He was unsure why; he just said that it was related to gender. With this dichotomy of men’s and women's health, I was curious about how training approached these differences in men’s and women’s healthcare. This led me to ask Dr. Neph about his medical education to learn if he was taught that men and women manifest symptoms differently for the same conditions and that one sex was more likely to have certain diseases. He said that his education did not teach this: “a patient is a patient, it doesn’t matter if it's a boy or girl. He looks at the individual like the person not the gender.” He preferred this style of teaching over being taught that men and women have different symptoms because he

could “see the person as a whole not... treat anyone differently.” For Dr. Neph, it is important to see a patient not as a disease or symptom associated with a gender, but rather more holistically.

Concluding Thoughts

I went to Brazil with a clear research question and set of questions, but I left with more than just answered questions. I had a different perspective of the healthcare system. I knew some aspects of Brazilian healthcare before I left because of the weekly meetings with Dr. Harris, but actually seeing it and interacting with it is much different than reading about it. For the obstetric portion of shadowing, I learned that OBGYNs are aware that Brazil has one of the highest c-section rates in the world, and some are trying to make the change of having more women try and deliver vaginally for their own safety. A report from the WHO recommends that a c-section should only be done if required. There are dangers that come with doing c-sections, namely “increased probability of neonatal respiratory distress, and increased rates of maternal blood transfusion, organ damage, thromboembolic diseases, anesthetic complications, and infections… increase risk of complications in subsequent pregnancies such as placenta accreta and uterine rupture” (Rudey et al. 2020: 1) Also, there are doctors and patients working together to figure out a favorable outcome for all parties involved, for instance a tubal ligation immediately after a c-section. Those doctors are giving healthcare choices to women who might not have had the option if they chose to deliver vaginally. In my interview with Dr. Neph, I also learned that there are diseases that are more likely to affect one sex more than the other, but one of the biggest factors that separates men and women in Brazilian healthcare is not a disease but pain. As Dr. Neph explained, women, in his experience, are much better at tolerating pain. There is such a difference in pain tolerance that even the way pain medications are given differs in regard to men and women's pain treatment. Adding another level to this is that women may tolerate physical

pain better, but there are cultural factors that may influence emotional pain, such as, in Dr. Neph's experience, men are more likely to be depressed when they are sick. It is also important to remember that these are Dr. Neph's personal experiences and that there is research stating the opposite of what he said. It is imperative to be aware of the possible bias healthcare providers can carry in regard to men and women's pain. Knowing this now this information should be used when it comes to future interviews and assessments whether it is another internship or working in the healthcare field.

Overall, it was truly an amazing opportunity to speak with these doctors and learn so much from them. It was also extraordinary to travel to Brazil and see healthcare from a pre-med side as well as an anthropological side. I was able to see how culture has a real effect on the way that medicine is practiced in this specific context. I believe that going in with both sets of eyes allowed me to leave Brazil with an understanding I did not have previously. I learned so much and had such fantastic experiences with the IMO team. It was truly an honor and privilege to be the Spring 2023 Global Health Intern.

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