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**Immigrational Trauma: An assessment of dental phobia and access to care in
undocumented individuals**

By

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BSDH, DENTAL HYGIENE, THE UNIVERSITY OF NEW MEXICO, 2020

THESIS

Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Science

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DEDICATION

This thesis is dedicated to the many unseen, undocumented, individuals who work hard and live for this country, but do not receive the benefits and care they need. I see you. I care for you. You are my community, and I will always fight for the rights you deserve.

This thesis is also dedicated to my wonderful family who has carried and supported me throughout my academic journey. This is especially so for my loving husband who has been my rock through this master's degree. I am forever grateful for you, my sunshine.

A very, very special thank you to my older sister Selene Vences who has been a constant mentor to me throughout this process. You have been my biggest supporter and confidant throughout my struggles. I could not have done this without your support. ¡Si se pudo!

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**Immigrational Trauma: An assessment of dental phobia and access to care in
undocumented individuals**

By

Nora Judith Vences Ortiz

BSDH, Dental hygiene, The University of New Mexico, 2020

MS, Dental Hygiene, The University of New Mexico, 2023

ABSTRACT

The purpose of this study is to assess immigrational trauma as it relates to dental phobia in accessing care from undocumented individuals. Immigrating from a country to the United States presents with unique challenges. These challenges include language barriers, traumatic experiences and cultural factors. These individuals also have perceived notions regarding their treatment with a physician or dentist as their immigration status may or may not be revealed during their care. If reported, they face deportation to their country of origin placing them in the danger they originally fled from. Survey data was collected using REDCap and distributed to students from El Centro de la Raza via their weekly newsletter upon IRB approval (HRRC ID # 23-124) . Once data was received, descriptive analysis was done to evaluate participants responses. In conclusion, the collected data showed parallels between the questions that were asked and the participants answers.

Table of Contents

LIST OF FIGURES	viii
CHAPTER 1: INTRODUCTION	1
Introduction.....	1
Significance of the Problem.....	1
Operational Definitions	3
CHAPTER II: LITERATURE REVIEW	5
Introduction.....	5
Oral Health and Culture.....	5
Post-Traumatic Stress Syndrome (PTSD) and oral health.....	7
Accessing Care	10
Summary	11
CHAPTER III: METHODS AND MATERIALS.....	13
Introduction.....	13
Hypothesis.....	13
Sample Description	13
Research Design	13
Data Collection and Analysis.....	14
CHAPTER IV: RESULTS, DISCUSSION AND CONCLUSION.....	15
Results.....	15
Discussion	20
Conclusion.....	21
CHAPTER V: ARTICLE FOR SUBMISSION.....	23
ABSTRACT	23
Introduction.....	24
Methods.....	26
Results.....	27
Discussion	29
Conclusion.....	30
APPENDICES.....	31
Appendix A: HRPO Approval Letter	31
Appendix B: Recruitment Letter.....	32
Appendix C: Informed Consent	33

Appendix D: Letter of Support 34
Appendix E: Survey 35
REFERENCES 39

LIST OF FIGURES

Figure 1: Answers provided by participant 1; Accessing Care	16
Figure 2: Answers provided by participant 2; Accessing Care	17
Figure 3: Answers provided by participant 1; Dental Phobia	18
Figure 4: Answers provided by participant 2; Dental Phobia	19

CHAPTER 1: INTRODUCTION

Introduction

Immigration is a challenging and traumatizing process. An immigrant's journey has many routes and, depending on the chosen route, can cause additional trauma, lead to post-traumatic stress disorder (PTSD), and other mental health problems. Once these individuals arrive at their destination, they face new trials and challenges in their daily lives. These challenges may include the stress of acculturation, language barriers, mental illness, and access to medical and dental services. Getting adequate dental and health care is essential to start a new life but can be complicated since all countries have different means and conditions by which an immigrant can access care. Some immigrants may experience mental illness, anxiety, and other fears post immigration that further contribute to the challenges of seeking medical and dental care.

Significance of the Problem

Many undocumented individuals come to learn a second language, English, to help family members translate and navigate the United States and its many systems. These systems can be complex due to the terminology used in health care settings. Some health care environments can trigger specific anxiety and stress in undocumented people. An example is not accessing care due to the fear of being deported. When care is accessed, they fear the government will be automatically notified and deport them, or they will be reported by a health care professional¹. Subsequently, legal status is another major determinant of immigrants' access to social services and jobs with benefits. Immigrants have consistently lower rates of

health insurance coverage than U.S.-born populations, although there are differences among immigrants based on immigration status, time in the United States, and country of origin¹. Nearly half (45 percent) of noncitizen immigrants living in the United States lack health insurance, whereas noncoverage for naturalized citizens generally approximates that of the U.S.-born (15–20 percent). However, 65 percent of undocumented immigrants lack health insurance, compared with 32 percent of permanent residents¹. Limited English proficiency is also likely to affect the quality-of-care immigrants receive; for instance, immigrants with limited proficiency report lower satisfaction with care and lower understanding of their medical situation¹. Those who need an interpreter but do not receive one fare the worst, followed by those who receive an interpreter and those who have a language-concordant provider or speak English well enough to communicate with the provider^{1–3}. The quality of interpretation is also important, but professional, trained interpreters are rare in many settings, and much interpretation is provided by ad hoc interpreters (family members, janitorial staff, and other patients) and is suboptimal¹. Translating can be misleading and if not done correctly, can have adverse effects on the patient—for instance, the need for a three-month recall versus a six-month recall. If not explained properly this can have detrimental effects on the patient's prognosis. This leads to more unmet needs and confusion by the patient when they do not recover from an ailment or are diagnosed with a lifelong disease.

In addition, undocumented immigrants are challenged by mental health illnesses as they can be the main source of income for their families. The dependence families have on that person (an undocumented immigrant) is great and

extends into that person's adult life. Unlike their counterparts (American citizens), who may have resources available to them that can easily be accessed without the worry of being deported or being faced with discrimination. Fear of discrimination is a predominant factor in access to care for undocumented individuals⁴. In a study completed of DACAmented youth, mistrust of doctors was commonly reported, with participants expressing concerns that doctors were only motivated by money and lacked understanding and sensitivity about their immigration status⁴. One participant shared that "doctors don't really know much about the status and what it means, necessarily, so sometimes the alternatives that they offer don't work for you because you're not eligible for them⁴". After interacting with a mental health provider, another participant explained, "even if I would share my story, they won't understand. You know, they're doing it for a business. They're not doing it to listen to you." These concerns were multiplied by a fear that disclosing their documentation status could put their families at risk for deportation⁴. This fear perpetuates a lack of access to care and overall low quality of life for the undocumented community.

Operational Definitions

1. *Undocumented individuals*- are defined as a person who is 18-35 years of age for the purpose of this study.
2. *Fear* - an unpleasant emotion caused by the belief that someone or something is dangerous, likely to cause pain, or a threat.
3. *Emotional intelligence* - the capacity to be aware of, control, and express one's emotions and to handle interpersonal relationships judiciously and empathetically.

4. *Intergenerational trauma* - a term that asserts trauma can be transferred between generations.
5. *Acculturation* - balancing two cultures while attempting to adapt to the dominant culture.
6. *Deferred action for childhood arrivals - DACA, DACAmented-* deferred Action for Childhood Arrivals (DACA) is a United States immigration policy that allows some individuals with unlawful presence in the United States after being brought to the country as children to receive a renewable two-year period of deferred action from deportation and become eligible for a work permit in the U.S.
7. *Post-Traumatic Stress Disorder - PTSD* - a disorder in which a person has difficulty recovering after experiencing or witnessing a terrifying event.

CHAPTER II: LITERATURE REVIEW

Introduction

This literature will review how immigration trauma affects access to care and dental phobia. Literature was reviewed using WorldCat and PubMed databases using words such as “immigrants”, “PTSD”, “oral care” amongst other keywords in studying undocumented individuals.

Oral Health and Culture

Oral health is important, and in some cultures, a high value of oral care is established. This however is challenged when you add deterring factors that prevent people from obtaining proper medical and oral health care- these deterrents are barriers to care. Barriers to care include language, access to care, socioeconomic status, delays in receiving care, unmet health needs, work schedules, and more.

The value of oral care is set forth within the family as everyone is involved. The example is set by the parents and older family members as they teach their children how to brush and floss, making it a part of the daily routine. Additionally, the types of foods that are consumed and prepared regularly in a home will affect the oral health of those in the household. Foods that contain high levels of carbohydrates make for an environment where opportunistic bacteria can flourish and cause decay. Many rely on these types of food as that is what is more affordable and readily available. With higher rates of decay, dental treatment options can become more costly, requiring more complicated procedures such as a root canals or implants. This now puts more financial burden on the family. Alternatively, extracting the tooth may be the less expensive, but may cause unwanted effects such as malocclusion and increased periodontal involvement of the surrounding

structures. A lack of perceived need for dental care is one of the strongest predictors of low dental care utilization among older adults when compared with adults under 50, and this may be particularly true for immigrants and ethnic minorities. Moreover, a significant proportion of individuals over age 65 do not view oral healthcare as an important part of their overall health and well-being⁵.

Disparities also exist and vary amongst different cultures especially when language barriers exist. Among minority older adults, Chinese immigrants were more likely to report poor dental health, were less likely to report dental care utilization, and were less satisfied with their dental care compared to all other racial/ethnic groups⁵. These disparities may be related, in part, to significant differences in language fluency. Chinese were significantly less likely to speak English and more likely to be foreign-born compared to all other respondents, including Hispanics⁵.

Acculturation also plays a role in the way oral care is perceived and handled in the family. By definition, acculturation is balancing two cultures while adapting to the dominant cultural environment. A higher level of acculturation, that is, a longer stay in the USA, as well as speaking primarily English at home, reduced the odds of having periodontitis⁶. Acculturation has been proven to positively influence dental services utilization and oral hygiene (OH) behaviors of migrants such as brushing frequency and increased flossing. Acculturation was also associated with immigrant and ethnic minorities' improved OH status, improved OH knowledge, and reduced orofacial pain⁷.

Post-Traumatic Stress Syndrome (PTSD) and oral health

In a study among 173 highly dentally anxious patients, it was found that 73% reported having experienced at least one such event at some time in their lives^{8,9}. Individuals who reported having ever been exposed to a distressing event appeared to have significantly higher levels of dental anxiety than those who had not been exposed to such an event^{8,9}. Thus, we can assume that having lived a traumatic event such as immigrating to the United States from a different country, can have a significant impact on phobias of the dentist. For example, it has been found that the presence of dental phobia is 5.6 times more likely in people who had ever experienced a traumatic violent crime in their life⁸. Additionally, those who indicated having been exposed to such events sometimes experience trauma-related symptoms typical of post-traumatic stress disorder (PTSD)⁸. These include distressing and intrusive memories or nightmares of the event, re-experiencing, avoidance tendencies, an enhanced state of threat sensitivity (hypervigilance), poor concentration, loss of interest, and difficulty sleeping⁸⁻¹⁰. Due to this fact, it can be difficult for patients to seek care or continue with their care if anxiety or PTSD is triggered by going to a dental visit.

Post-traumatic stress disorder can be debilitating to the mind and body. Patients with PTSD exhibit multiple alterations, or symptoms, in biological function, including the neurologic, endocrine, and immune systems, all of which may contribute to health declines. These symptoms include intense fear, anxiety, a restricted range of feelings, hypervigilance, and avoidance of things that remind them of the distressing event. PTSD studies have reported evidence of increased inflammatory activity in the immune system, including higher levels of stimulated and

non-stimulated inflammatory cytokines. These higher levels of inflammatory activity have been linked to HPA (hypothalamic-pituitary-adrenal) axis abnormalities. Chronically activated inflammatory response has been shown to exert adverse reactions on many body systems. Specifically, elevations of interleukin-6 (IL-6)¹⁰⁻¹⁶. In the dental world, interleukin-6 plays an important role as gingivitis and periodontitis are inflammatory responses to external and internal factors combined. IL-6, together with other cytokines and active-phase reactants, modulates the response to oral bacteria. An excessive IL-6 response may contribute to the development of a chronic inflammatory lesion, resulting in loss of periodontal ligament and alveolar bone¹⁷. This might happen through IL-6's tissue-degradation effects on connective tissue and bone—mediated by metalloproteinases and osteoclasts, activation of T-cells, or amplification of the inflammatory cascade¹⁸.

Due to the inflammatory process, individuals who suffer from a debilitating experience may in fact have poor oral health. Periodontal disease can present itself as a co-morbidity due to the fact that survivors will avoid things that remind them of specific lived events. For example, a form of repeated oral abuse can lead to neglect, not brushing or flossing as it requires the patient to manipulate objects in their mouth. The situation now arises in regard to giving proper care to these patients without retraumatizing them. Providers must acknowledge the lived experiences of these persons and provide the best possible treatment.

Through research, a proposed treatment modality came to be, which is called the trauma-informed care pyramid (TIC). This method takes into account dental specialties and individual patient needs. Level 1: patient-centered communication

skills- Specific communication and behavioral techniques can help manage patients' anxiety and increase the provider's rapport with trauma survivors¹⁹. Level 2: understanding the health effects of trauma. The next level of the pyramid consists of being aware of and understanding the effects of trauma. This does not require providers to delve into the trauma history; it simply means the dental provider is educated about the health-related effects of traumatic events. For example, when dentists discuss negative coping behaviors with patients (such as smoking, drinking, high intake of sugary food and drink), they should be aware that these behaviors may be related to stressful life experiences¹⁹. Level 3: collaboration and understanding the professional's role. The third level of the pyramid involves collaboration with other professionals and a thorough understanding of the dentist's professional role¹⁹. Providers should maintain a list of referral sources for patients, including local referral sources specifically for those who do disclose a history of trauma (such as area therapists or hotline information)¹⁹. Level 4: understanding one's own history of trauma. Another key aspect of TIC is for providers to understand their own trauma histories¹⁹. If a provider has gone through something similar, compassionate communication language can be used to acknowledge the patient and provide a specific treatment modality that will best accommodate the patient's needs. Level 5: screening. The final level of the pyramid involves screening for traumatic events. Although time does not always allow for screenings, providers who work with high-risk populations may decide to screen routinely for a history of trauma¹⁹.

Accessing Care

Access to care is the ability to have a person's medical and dental needs met in a convenient, safe, and affordable manner. Barriers exist in the form of socioeconomic status, legal status, patient perceptions, and resource availability. Many undocumented immigrants are left vulnerable because their medical and dental necessities are not being met due to these barriers. Poor children and adults receive significantly fewer dental services than the population as a whole^{20,21}, and people who live below the Federal Poverty Line (FPL) are less than half as likely to have visited a dentist in the past year as those who qualify as "high income"^{20,22}. Lack of insurance is one factor that explains this disparity. Fifty-nine % of those with incomes below the FPL and 51 % of those with incomes between 100 and 200 % of the FPL have no dental coverage^{20,23}. While the Affordable Care Act requires dental insurance for children, it does not require adult dental coverage^{20,24}. Furthermore, discrimination plays a big factor on how immigrants are treated. Immigrants' vulnerability can also be influenced by factors related to stigma and marginalization. The healthcare systems in place cause these inequalities along with language difficulties and discrimination.

A variety of factors can contribute to this: differences in appearance (for example, wearing traditional dress), cultural and religious practices, language barriers, speaking with an accent (even among immigrants who speak English), and skin tone¹. Additionally, through the Affordable Care Act undocumented immigrants, who have long been ineligible for federal benefits, and recent legal immigrants cannot benefit from a key provision of the ACA—the expansion of Medicaid—that

provides insurance coverage to presently uninsured individuals with incomes at or below 133 percent of the federal poverty level²⁵.

Summary

Limitations exist when undocumented individuals access any form of care. Past traumatic events, legal status, and health literacy are barriers that prevent these individuals from having their medical and specifically, dental needs met. The health care systems are flawed and perpetuate the inequality of care noncitizens face. This is sustained by requirements that undocumented people need to provide to receive care. More specifically, the documentation needed to get adequate health insurance and coverage. As stated in healthcare.gov, and federal guidelines, only specific “lawfully present” immigrants can apply for health care coverage. This includes, but is not limited to the following²⁶:

- Lawful Permanent Resident (LPR/Green Card holder)
- Asylee
- Refugee
- Cuban/Haitian Entrant
- Paroled into the U.S.
- Conditional Entrant Granted before 1980
- Battered Spouse, Child and Parent
- Victim of Trafficking and his/her Spouse, Child, Sibling or Parent
- Granted Withholding of Deportation or Withholding of Removal, under the immigration laws or under the Convention against Torture (CAT)

- Individual with Non-immigrant Status, includes worker visas (such as H1, H-2A, H-2B), student visas, U-visa, T-visa, and other visas, and citizens of Micronesia, the Marshall Islands, and Palau
- Temporary Protected Status (TPS)
- Deferred Enforced Departure (DED)
- Deferred Action Status (Exception: Deferred Action for Childhood Arrivals (DACA) is not an eligible immigration status for applying for health insurance)
- Lawful Temporary Resident
- Administrative order staying removal issued by the Department of Homeland Security
- Member of a federally-recognized Indian tribe or American Indian Born in Canada
- Resident of American Samoa

Subsequently, undocumented immigrants do not have access to healthcare coverage under the Affordable Health Care Act. However, undocumented immigrants can also access limited primary care and prescription drugs through 1,400 or so Federally Qualified Health Centers (FQHCs) around the country²⁷. Though this type of care can be accessed, fear of being reported to immigration officials and past lived trauma add to the lack of accessing care.

CHAPTER III: METHODS AND MATERIALS

Introduction

This research focused on how immigrational trauma affects access to care in undocumented individuals aged 18-35. Many studies have been conducted to examine how immigration trauma affects undocumented immigrants' behavioral health. Still, little to no research has been done to understand the impact it has on their dental health. Participants who self-identify as undocumented completed a demographic and multiple-choice survey. Participants were asked a series of questions regarding their migration journey, traumatic events, and their experiences with dental care. The purpose of this research was to have a better understanding of how immigrational trauma plays a role in dental phobia, affecting access to care in this population.

Hypothesis

Immigrational trauma plays a role in dental phobia, affecting access to care in undocumented individuals.

Sample Description

Undocumented individuals aged 18-35 who were born outside of the United States and have varying immigration statuses. The population included youth with Deferred Action for Childhood Arrivals (DACA) and undocumented individuals. Participants lived in the State of New Mexico and self-identified as undocumented.

Research Design

This research was conducted in a multiple-choice survey, identifiable information was not collected. If identifiable information was collected as participants filled out the survey, it was immediately disposed of. The survey was sent to those

who are subscribed to The University of New Mexico's, El Centro de la Raza student Listserv newsletter. This institution helps Latino students by providing academic resources and support to them and their families.

Informed consent was obtained from participants prior to starting the survey. Due to the nature of this study, participants were informed of any potential triggers that can cause strong emotional responses. The survey was split up into three categories as follows:

1. Demographic survey
2. Accessing care
3. Dental phobia tied to their immigration journey

Data Collection and Analysis

This research project aimed to receive as much information as possible, regarding dental phobia in relation to accessing dental care. The survey was distributed to students who identify as undocumented individuals via REDCap. The target population was the student's listserv from El Centro de la Raza at the University of New Mexico. Using descriptive analysis, each question was evaluated. This will allow for the evaluation of how and if immigrational trauma has impacted the individual's access to dental care.

CHAPTER IV: RESULTS, DISCUSSION AND CONCLUSION

Results

The total number of surveys received in this study is two (n=2). The survey was sent to participants via the El Centro de la Raza's Listserv weekly newsletter. The survey was open for two weeks and the survey was showcased weekly during those two weeks. The survey was sent to upwards of 200 participants and consisted of the following 3 categories: Demographics, Accessing Care and Dental Phobia with subsequent questions. After initial consent was received, participants who met the criteria for age inclusion were allowed to complete the survey. If this was not met, branching within the survey ended their participation, thanked them for their time and public health resources were provided. The survey received two completed responses. For evaluation purposes participant 1 will be referred to as p1 and participant 2 as p2.

In the demographics portion participants were asked the following questions:

- Immigration status
- Marital status
- Years present in the United States

As previously mentioned, immigration status plays a big role in accessing care and is dependent on the insurability of an individual. Participant 1 chose "undocumented/DACA recipient" and participant 2 chose "U.S permanent resident". Marital status was important because if an individual is married, their spouse or partner could encourage them to seek health services. This can be especially true if they have been feeling ill for an extended period of time or are seeking to establish

care with a provider. Their partner may know of services the other does not. Participant 1 chose “single” while participant 2 chose “spiritually united”. The last question asked the participant how long they resided in the United States. This question was asked to find correlations between years present and services accessed in the third portion of the survey. Participant 1 stated they had been in the US for 0-5 years while participant 2 answered with 16+ years. This question sought to evaluate how their trauma affected services accessed.

The second portion of the survey asked questions about accessing care. This portion was imperative to the survey because it allowed participants to anonymously answer the questions in an unbiased manner. The following questions were asked:

- I have access to a dental provider that I see on a regular basis.
- I am aware of community resources that help meet my dental needs.
- I am able to find affordable dental care that meets my needs.

ACCESSING CARE					
Taking into consideration your current immigration status please rate the following statements:					
	Strongly agree	Somewhat agree	Neutral	Somewhat disagree	Strongly disagree
5. I have access to a dental provider that I see on a regular basis.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I am aware of community resources that help meet my dental needs.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I am able to find affordable dental care that meets my needs.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 1: Answers provided by participant 1; Accessing Care

ACCESSING CARE					
Taking into consideration your current immigration status please rate the following statements:					
	Strongly agree	Somewhat agree	Neutral	Somewhat disagree	Strongly disagree
5. I have access to a dental provider that I see on a regular basis.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I am aware of community resources that help meet my dental needs.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I am able to find affordable dental care that meets my needs.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 2: Answers provided by participant 2; Accessing Care

With the answers provided by the participants, comparisons can be made as to how each individual has accessed care. Both p1 and p2 have equal access to dental providers which they see on a regular basis. This suggests they are meeting their dental needs. For question 6, the answers differ, p1 states they are neutral regarding community dental health resources. Based on how they answered previous questions, p1 has access to a dental provider. However, it can be assumed they may struggle with more costly dental procedures. Their neutrality may indicate a lack of continual care because they financially can't afford it (questions 7) or may not know of resources to help them meet their needs (question 6). P2 states they are aware of community resources which based on question 5, reinforced the statement of that individual meeting their dental needs. Lastly, question 7 puts into perspective how the previous two questions reflect on access to care. P2 states they "somewhat agreed" with the statement, it can be assumed dental care is feasible based off the comparison between question 6 and question 7.

The last portion of the survey consisted of some emotionally heavy topics. Participants were warned that the nature of the questions may stir strong feelings and images of lived experiences. This was the connecting piece to the whole survey and truly served to answer the hypothesis. To reiterate, the hypothesis was as follows:

“Immigrational trauma plays a role in dental phobia, affecting access to care in undocumented individuals.”

Participant answers are discussed in detail below.

DENTAL PHOBIA					
Since immigrating to the United States please rate the following statements:					
	Strongly agree	Somewhat agree	Neutral	Somewhat disagree	Strongly disagree
8. Through my immigration journey, I experienced a traumatic event that has hindered my ability to seek adequate dental care.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
9. I am deterred from seeking dental care as I fear providers may report my undocumented status.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I am afraid and have anxiety when thinking about visiting the dentist due to past traumatic events.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
12. I encourage my family members to receive dental care, but do not go myself out of fear or anxiety.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 3: Answers provided by participant 1; Dental Phobia

As shown above, these are the answers for participant 1(p1). Question 8 was another pivotal question in the survey as it critically sought to answer the hypothesis for this research study. P1 disagreed that their immigration journey did not affect

their ability to seek adequate dental care. However, the fear still remained of being reported to immigration authorities by providers (question 9). Question 10 ties in with question 8- due to no past trauma, there is no anxiety when visiting the dentist on a regular basis. Interestingly, question 12 also ties in with question 9- the participant encourages family members to seek dental treatment, but they are in fear when they themselves pursue care. It is clear that participant 1 is seeking care regardless of their undocumented status, but their fear and anxiety is being perpetuated by the same factor. Question 11- “I have negative opinions about the dentist because of past family members experiences”, was unanswered.

DENTAL PHOBIA					
Since immigrating to the United States please rate the following statements:					
	Strongly agree	Somewhat agree	Neutral	Somewhat disagree	Strongly disagree
8. Through my immigration journey, I experienced a traumatic event that has hindered my ability to seek adequate dental care.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I am deterred from seeking dental care as I fear providers may report my undocumented status.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I am afraid and have anxiety when thinking about visiting the dentist due to past traumatic events.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I have negative opinions about the dentist because of past family members experiences.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I encourage my family members to receive dental care, but do not go myself out of fear or anxiety.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>

Figure 4: Answers provided by participant 2; Dental Phobia

Participant 2 had drastically different answers to participant 1. Through question 8, it is inferred that some traumatic event in their immigrational journey hinders them to seek dental care. A neutral answer was given for question 9, 10, and question 11. Due to the neutrality of the answers, inferences are difficult to examine. This gave the participant an area to not answer the questions. They may not have felt comfortable answering but may have wanted to click on an answer. In comparison, p2 states they do not encourage family members to seek dental care due to fear and anxiety. Lastly to associate question 8 and question 12 for p2, dental care is not accessed due to a traumatic experience leading to the participant not encouraging family members to seek dental care. The common theme the two questions have is the trauma and fear the participant has which leads to lack of dental care.

Discussion

To continue data comparison, insufficient responses were received for statistical observations, thus a descriptive approach was used. By comparing the answers from both participants side-by-side, certain trends are demonstrated. P1 as a single, unmarried, undocumented individual can access dental care on a regular basis. They have access to resources though some financial barriers may exist. This care is accessed in their case as they did not have any immigrational trauma affecting their access, but still fear persecution when they seek any type of health services. By comparison p2, as a permanent resident, who is spiritually united to their partner, has access to dental care. They, however, did have a traumatic experience in their immigration journey which did not hinder their ability to seek

dental care. They also encouraged dental care within their family unit. It is safe to say both participants fear persecution which aligns with past literature.

Limitations can negatively affect a research study and this one was no different. The greatest limitation was a lack of participation in the survey. With only two participants little data was collected and observations were difficult to make regarding the population. What was even more challenging, was answering the hypothesis with insufficient data. Another limitation was a lack of advertisement for the survey. The newsletter for El Centro de la Raza was a great resource for distribution, but it is unknown how often their readership engages with the newsletter. The weekly newsletter was also lengthy, exceeding 28 pages. The survey appeared at the end of the newsletter (18th page) which may have also decreased its number of views. If this study was to be redone, flyers with QR codes linked to the survey would be distributed in-person at El Centro de la Raza's office. Additionally, the New Mexico Dream Team-a community resource and support organization for undocumented individuals, may have also been an alternative source for survey distribution. They also have a newsletter that is distributed to their Listserv. This organization holds informational meetings regularly for its members, making this a great event to distribute the survey. Subsequently, participant incentives, such as monetary compensation, may have helped increase the response rate.

Conclusion

Immigration can be a challenging and traumatizing process. Individuals who go through this process are undocumented individuals looking for a better life for themselves and their family. Once these people reach the United States, fear of

being deported back to their country is a constant reminder even when seeking care. Care is defined as accessing dental, health, and mental health services that the individual needs. This research supports the theory that dental phobia impacts a person's ability to access dental care. Unfortunately, fear is perpetuated by the lived experience. As a result of this event, challenges arise for an undocumented person seeking dental treatment though community resources exist. For future research projects regarding this subject, a closer look into the financial situation and mixed status of immigrants should be considered and their impact on health access.

CHAPTER V: ARTICLE FOR SUBMISSION

ABSTRACT

The purpose of this study is to assess immigrational trauma as it relates to dental phobia in accessing care from undocumented individuals. Immigrating from a country to the United States presents with unique challenges and traumatic factors that affects an individual's ability to seek health, dental and mental care. These challenges include language barriers, financial abilities, traumatic lived experiences and cultural factors. This groups of individuals also have perceived notions regarding their treatment with a physician or dentist as their immigration status may or may not be revealed during their care. A prolonged fear in this community has been the fear they may be reported to immigration officials. If reported, they face deportation to their country of origin placing them in the danger they originally fled from. Survey data was collected using REDCap and distributed to students from El Centro de la Raza via their weekly newsletter upon IRB approval (HRRC ID # 23-124). Once data was received, descriptive analysis was done to evaluate participants responses. The data showed parallels between the questions asked throughout the survey. To summarize, the results of this study support correlations between immigrational trauma affecting dental phobia when accessing care.

Key words: Undocumented individuals, fear, emotional intelligence, intergenerational trauma, Acculturation, Deferred Action for Childhood Arrivals (DACA), post-traumatic stress disorder (PTSD)

Introduction

Immigration is a challenging and traumatizing process. An immigrant's journey has many routes and, depending on the chosen route, can cause additional trauma, lead to post-traumatic stress disorder (PTSD), and other mental health problems. Once these individuals arrive at their destination, they face new trials and challenges in their daily lives. These challenges may include the stress of acculturation, language barriers, mental illness, and access to medical and dental services. Getting adequate dental and health care is essential to start a new life but can be complicated since all countries have different means and conditions by which an immigrant can access care. Some immigrants may experience mental illness, anxiety, and other fears post immigration that further contribute to the challenges of seeking medical and dental care.

Many undocumented individuals come to learn a second language, English, to help family members translate and navigate the United States and its many systems. These systems can be complex due to the terminology used in health care settings. Some health care environments can trigger specific anxiety and stress in undocumented people. An example is not accessing care due to the fear of being deported. When care is accessed, they fear the government will be automatically notified and deport them, or they will be reported by a health care professional¹. Subsequently, legal status is another major determinant of immigrants' access to social services and jobs with benefits. Immigrants have consistently lower rates of health insurance coverage than U.S.-born populations, although there are differences among immigrants based on immigration status, time in the United States, and country of origin¹. Nearly half (45 percent) of noncitizen immigrants living

in the United States lack health insurance, whereas noncoverage for naturalized citizens generally approximates that of the U.S.-born (15–20 percent). However, 65 percent of undocumented immigrants lack health insurance, compared with 32 percent of permanent residents¹. Limited English proficiency is also likely to affect the quality-of-care immigrants receive; for instance, immigrants with limited proficiency report lower satisfaction with care and lower understanding of their medical situation¹. Those who need an interpreter but do not receive one fare the worst, followed by those who receive an interpreter and those who have a language-concordant provider or speak English well enough to communicate with the provider^{1–3}. The quality of interpretation is also important, but professional, trained interpreters are rare in many settings, and much interpretation is provided by ad hoc interpreters (family members, janitorial staff, and other patients) and is suboptimal¹. Translating can be misleading and if not done correctly, can have adverse effects on the patient—for instance, the need for a three-month recall versus a six-month recall. If not explained properly this can have detrimental effects on the patient's prognosis. This leads to more unmet needs and confusion by the patient when they do not recover from an ailment or are diagnosed with a lifelong disease.

In addition, undocumented immigrants are challenged by mental health illnesses as they can be the main source of income for their families. The dependence families have on that person (an undocumented immigrant) is great and extends into that person's adult life. Unlike their counterparts (American citizens), who may have resources available to them that can easily be accessed without the worry of being deported or being faced with discrimination. Fear of discrimination is

a predominant factor in access to care for undocumented individuals⁴. In a study completed of DACAmented youth, mistrust of doctors was commonly reported, with participants expressing concerns that doctors were only motivated by money and lacked understanding and sensitivity about their immigration status⁴. One participant shared that “doctors don’t really know much about the status and what it means, necessarily, so sometimes the alternatives that they offer don’t work for you because you’re not eligible for them⁴”. After interacting with a mental health provider, another participant explained, “even if I would share my story, they won’t understand. You know, they’re doing it for a business. They’re not doing it to listen to you.” These concerns were multiplied by a fear that disclosing their documentation status could put their families at risk for deportation⁴. This fear perpetuates a lack of access to care and overall low quality of life for the undocumented community.

Methods

This research focused on how immigrational trauma affects access to care in undocumented individuals aged 18-35. Many studies have been conducted to examine how immigration trauma affects undocumented immigrants’ behavioral health. Still, little to no research has been done to understand the impact it has on their dental health. Participants who self-identify as undocumented completed a demographic and multiple-choice survey. Participants were asked a series of questions regarding their migration journey, traumatic events, and their experiences with dental care. The purpose of this research was to have a better understanding of how immigrational trauma plays a role in dental phobia, affecting access to care in this population.

The sample population were undocumented individuals aged 18-35 who were born outside of the United States and have varying immigration statuses. The population included youth with Deferred Action for Childhood Arrivals (DACA) and undocumented individuals. Participants lived in the State of New Mexico and self-identified as undocumented.

This research was conducted in a multiple-choice survey, identifiable information was not collected. If identifiable information was collected as participants filled out the survey, it was immediately disposed of. The survey was sent to those who are subscribed to The University of New Mexico's, El Centro de la Raza student Listserv newsletter. This institution helps Latino students by providing academic resources and support to them and their families.

Informed consent was obtained from participants prior to starting the survey. Due to the nature of this study, participants were informed of any potential triggers that can cause strong emotional responses. The survey was split up into three categories as follows:

1. Demographic survey
2. Accessing care
3. Dental phobia tied to their immigration journey

Results

Immigrating from a country to the United States presents with unique challenges and traumatic factors that affects an individual's ability to seek health, dental and mental care. These challenges include language barriers, financial abilities, traumatic lived experiences and cultural factors. This groups of individuals

also have perceived notions regarding their treatment with a physician or dentist as their immigration status may or may not be revealed during their care. A prolonged fear in this community has been the fear they may be reported to immigration officials. If reported, they face deportation to their country of origin placing them in the danger they originally fled from.

Survey data was collected using REDCap and distributed to students from El Centro de la Raza via their weekly newsletter. Once data was received a descriptive analysis was made to evaluate participants responses. The data showed parallels between the questions asked throughout the survey. Only two responses were received throughout the entirety of the survey. By comparing the answers from both participants side-by-side, certain trends are demonstrated. P1 as a single, unmarried, undocumented individual can access dental care on a regular basis. They have access to resources though some financial barriers may exist. This care is accessed in their case as they did not have any immigrational trauma affecting their access, but still fear persecution when they seek any type of health services. By comparison p2, as a permanent resident, who is spiritually united to their partner, has access to dental care. They, however, did have a traumatic experience in their immigration journey which did not hinder their ability to seek dental care. They also encouraged dental care within their family unit. It is safe to say both participants fear persecution which aligns with past literature. To summarize, there is correlations between immigrational trauma affecting dental phobia when accessing care.

Discussion

To continue data comparison, insufficient responses were received for statistical observations, thus a descriptive approach was used. By comparing the answers from both participants side-by-side, certain trends are demonstrated. P1 as a single, unmarried, undocumented individual can access dental care on a regular basis. They have access to resources though some financial barriers may exist. This care is accessed in their case as they did not have any immigrational trauma affecting their access, but still fear persecution when they seek any type of health services. By comparison p2, as a permanent resident, who is spiritually united to their partner, has access to dental care. They, however, did have a traumatic experience in their immigration journey which did not hinder their ability to seek dental care. They also encouraged dental care within their family unit. It is safe to say both participants fear persecution which aligns with past literature.

Limitations can negatively affect a research study and this one was no different. The greatest limitation was a lack of participation in the survey. With only two participants little data was collected and observations were difficult to make regarding the population. What was even more challenging, was answering the hypothesis with insufficient data. Another limitation was a lack of advertisement for the survey. The newsletter for El Centro de la Raza was a great resource for distribution, but it is unknown how often their readership engages with the newsletter. The weekly newsletter was also lengthy, exceeding 28 pages. The survey appeared at the end of the newsletter (18th page) which may have also decreased its number of views. If this study was to be redone, flyers with QR codes linked to the survey would be distributed in-person at El Centro de la Raza's office.

Additionally, the New Mexico Dream Team-a community resource and support organization for undocumented individuals, may have also been an alternative source for survey distribution. They also have a newsletter that is distributed to their Listserv. This organization holds informational meetings regularly for its members, making this a great event to distribute the survey. Subsequently, participant incentives, such as monetary compensation, may have helped increase the response rate.

Conclusion

Immigration can be a challenging and traumatizing process. Individuals who go through this process are undocumented individuals looking for a better life for themselves and their family. Once these people reach the United States, fear of being deported back to their country is a constant reminder even when seeking care. Care is defined as accessing dental, health, and mental health services that the individual needs. This research supports the theory that dental phobia impacts a person's ability to access dental care. Unfortunately, fear is perpetuated by the lived experience. As a result of this event, challenges arise for an undocumented person seeking dental treatment though community resources exist. For future research projects regarding this subject, a closer look into the financial situation and mixed status of immigrants should be considered and their impact on health access.

APPENDICES

Appendix A: HRPO Approval Letter



Human Research Protections Program

March 31, 2023
 Robin Gatlin
 robing@salud.unm.edu

Dear Robin Gatlin:

On 3/31/2023, the HRRC reviewed the following submission:

Type of Review: Initial Study
 Title of Study: Immigrational Trauma: An assessment of dental phobia and
 access to care in undocumented individuals
 Investigator: Robin Gatlin
 Study ID: 23-124
 Submission ID: 23-124
 IND, IDE, or HDE: None

Submission Summary: Initial Study

Documents Approved:

- Consent
- Initial Email
- Protocol
- Recruitment Letter
- Reminder Email
- Resources
- Support Letter
- Survey

Review Category: EXEMPTION: Categories (2)(i) Tests, surveys, interviews, or
 observation (non-identifiable)

Determinations/Waivers: Provisions for Consent are adequate.
 HIPAA Authorization Addendum Not Applicable.

Submission Approval Date: 3/31/2023
 Approval End Date: None
 Effective Date: 3/31/2023

The HRRC approved the study from 3/31/2023 to inclusive. If modifications were
 required to secure approval, the effective date will be later than the approval date. The
 "Effective Date" 3/31/2023 is the date the HRRC approved your modifications and, in all
 cases, represents the date study activities may begin.

Appendix B: Recruitment Letter

Recruitment Letter

Hello,

You have been chosen to participate in a research survey, *Immigrational Trauma: An assessment of dental phobia and access to care in undocumented individuals*. This research aims to evaluate how immigrational trauma has impacted individuals in the form of dental phobia and access to care. The survey is voluntary and will take approximately 5-10 minutes to complete. During the survey identifying information will not be collected.

Click on the following link to participate and take the survey:

If you have any questions, please don't hesitate to email Nora Vences Ortiz at novencesortiz@salud.unm.edu or if you have any questions regarding your legal rights as a research subject, you may call the UNMHSC Office of Human Research Protections at (505)272-1129 or via e-mail at hsc-hrpo@salud.unm.edu.

Your participation is deeply appreciated.

Robin Gatlin, RDH, MS, Principal Investigator
Department of Dental Medicine, Division of Dental Hygiene, University of New Mexico Health Sciences
Phone: (505) 272-0838
Email: RobinG@salud.unm.edu

Team member:
Nora Vences Ortiz, RDH, MS Candidate
Email: novencesortiz@salud.unm.edu
HRR ID# 23-124

Appendix C: Informed Consent

University of New Mexico Health Sciences Center

Informed Consent Cover Letter for Anonymous Surveys

Immigrational Trauma: An assessment of dental phobia and access to care in undocumented individuals

Professor Robin Gatlin from the Department of Dental Medicine, Division of Dental Hygiene is conducting a research study. The purpose of the study is to assess how immigrational trauma has impacted undocumented individuals' dental phobia and access to care. You are being asked to participate in this study as your legal status in the United States may fall into this category.

Your participation will involve completing a survey. The survey should roughly take about 5-10 minutes to complete. Your participation in this study is voluntary and you may choose not to participate or discontinue at any point through the study. The study includes questions/statements such as "I experienced a traumatic event that has hindered my ability to seek adequate dental care". You can refuse to answer any of the questions at any time during the survey. There are no known risks in this study, but some individuals may experience emotional discomfort when answering questions. All data will be kept under a password protected and secured network-REDCap.

Please be aware, while we make every effort to safeguard your data once received on our servers via REDCap, given the nature of online surveys, as with anything involving the Internet, we can never guarantee the confidentiality of the data while being transmitted to us.

We hope to receive completed questionnaires from about 50 people, so your answers are very important to us. The findings from this project will provide information regarding undocumented individuals dental phobia and access to dental care.

If you have questions regarding this study, you may contact Nora Vences Ortiz at (505)-712-2238. For questions regarding legal rights as a research subject, you may contact the UNMHSC Office of Human Research Protections at (505)272-1129.

By clicking "Ok" you will be giving Consent to participate in the above-described research study.

Thank you for your consideration.

Robin Gatlin, RDH, MS, Principal Investigator
Department of Dental Medicine, Division of Dental Hygiene, University of New Mexico Health Sciences
Phone: (505) 272-0838
Email: RobinG@salud.unm.edu

Team member:
Nora Vences Ortiz, RDH, MS Candidate
Email: novencesortiz@salud.unm.edu

Appendix D: Letter of Support



January 24, 2023

To Whom It May Concern:

This is to assert that Nora Vences Ortiz has requested and been approved to distribute her survey "Immigrational Trauma: A survey assessing dental phobia, access to care and health literacy in undocumented individuals" through El Centro's listserv upon receipt of IRB approval. If I can be of further assistance, please feel free to contact me.

Sincerely,

Rosa Isela Cervantes
Director

Appendix E: Survey

Demographics survey

1. Are you between the ages of 18-35?
 - a. Yes
 - b. No

2. Please choose your current immigration status:
 - a. Undocumented/DACA recipient
 - b. Permanent resident
 - c. U.S citizen

3. Marital status
 - a. Single
 - b. Married
 - c. Divorced
 - d. Widowed/ widower
 - e. Spiritually united

4. Years present in the United States
 - a. 0-5
 - b. 6-10
 - c. 11-15
 - d. 16+

Accessing care

Taking into consideration your **current** immigration status please rate the following statements:

1. I have access to a dental provider that I see on a regular basis.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neutral
 - d. Somewhat disagree
 - e. Strongly disagree

2. I am aware of community resources that help meet my dental needs.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neutral
 - d. Somewhat disagree
 - e. Strongly disagree

3. I am able to find affordable dental care that meets my needs.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neutral
 - d. Somewhat disagree

- e. Strongly disagree

Dental Phobia

Since immigrating to the United States please rate the following statements:

1. Through my immigration journey, I experienced a traumatic event that has hindered my ability to seek adequate dental care.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neutral
 - d. Somewhat disagree
 - e. Strongly disagree

2. I am deterred from seeking dental care as I fear providers may report my undocumented status.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neutral
 - d. Somewhat disagree
 - e. Strongly disagree

3. I am afraid and have anxiety when thinking about visiting the dentist due to past traumatic events.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neutral
 - d. Somewhat disagree
 - e. Strongly disagree

4. I have negative opinions about the dentist because of past family members experiences.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neutral
 - d. Somewhat disagree
 - e. Strongly disagree

5. I encourage my family members to receive dental care, but do not go myself out of fear or anxiety.
 - a. Strongly agree
 - b. Somewhat agree
 - c. Neutral
 - d. Somewhat disagree
 - e. Strongly disagree

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