HYGIENE IS A HUMAN RIGHT: ACCESS TO HYGIENE FACILITIES IN UNSHELTERED INDIVIDUALS AND ITS EFFECTS ON HEALTH

By

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A Thesis Submitted to the W.A. Franke Honors College

In Partial Fulfillment of the Bachelor's Degree

With Honors in

Health and Human Values

THE UNIVERSITY OF ARIZONA

MAY 2023

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Abstract

Unsheltered individuals are sometimes asked to leave restroom facilities or are not permitted to enter due to their status as being unsheltered. With this, many unsheltered individuals are forced to urinate, defecate, or engage in other hygiene practices outdoors. They may also lack access to necessary hygiene toiletries or wait to urinate or defecate until they are able to gain access to a facility. These challenges can lead to health issues, such as urinary tract infections (UTIs), diarrhea, rashes, etc. The purpose of this study was to understand how lack of access to basic hygiene facilities is related to experienced health effects by unsheltered individuals. A verbal survey in English and research protocol was formulated and subsequently approved by the University of Arizona Institutional Review Board to explore the relationship between hygiene and being unsheltered. Each week, the primary researcher went out with the homeless outreach team from El Rio, a trusted organization in the unsheltered community, to verbally consent and recruit participants. Thirty consenting unsheltered adults ranging in ages from twenty-nine to sixty-eight participated. Results of the survey revealed that access to water was the most considerable hygiene barrier, followed by access to soap, concerns for privacy, and concerns for safety. Approximately 37% of participants experienced a UTI at least once since becoming unsheltered and 30% experienced a yeast infection at least once, with female participants having a higher occurrence rate than male participants. In addition, 63% of participants experienced a rash at least once and 57% of participants experienced diarrhea at least once. However, 67% of participants did not seek medical care for their health-related issues. The lack of utilization of medical resources shows a disconnect between health care providers and unsheltered individuals, which demonstrates the need for more socially competent care.

Background

History of Homelessness in the United States

In a world with limited resources, living in a structured society that provides differential access to goods and materials, it is inevitable for there to be varying degrees of wealth and living conditions. The United States is one of these such societies where there have always been more opportunities for some individuals compared others. These systemic factors coupled with various personal, physical, and mental factors has contributed to the unsheltered experience. Systemic factors include, but are not limited to, slavery, the displacement of Native Americans, economic recession and depression, wars, immigration, natural disasters, access to education, and much more[1]. These historical issues and social determinants of health, which are important indicators of overall health; unsheltered individuals experience negative side effects due to being deficient or lacking in one or more social determinant of health.

Since colonial times in the United States, there have been recorded instances of unsheltered individuals. In 1640, Boston police officers arrested individuals who at the time were labeled as "vagrants" or "vagabonds"[1]. Before the 1820s, fewer than 7 percent of U.S. residents lived in cities[1]. However, as the Industrial Revolution influenced how and where people earned their living, there was a substantial migration into urban centers. Many of those who were unable to find stable work or pay for the expensive city prices ended up living on the streets. By the 1850s, police stations served as the major shelter system for "vagrants" and large cities reported increasing numbers of unsheltered individuals[2]. At this time, independent charities began to focus their efforts on homelessness.

In the 1870s, the number of unsheltered individuals increased substantially and became a nationally recognized issue[2]. The 1880s ushered in a new term for unsheltered individuals,

"hobo," which softened negative public perception surrounding unsheltered individuals[2]. The Great Depression brought record rates of unemployment and resulted in millions of people losing their jobs and subsequently, their residences. As the proportion of the population who were classified as unsheltered grew, so did the need for government and structural interventions. Many industrial cities developed high-density housing and city shelters in response.

The early 1980s ushered in what is considered to be the modern era of the unsheltered experience[2]. Factors influencing this new wave include the gentrification of the inner city, deinstitutionalization of the mentally ill, the emergence of HIV/AIDS, inadequate affordable housing, and budget cuts to the U.S. Department of Housing and Urban Development[2]. Since the 1980s, rent in metro areas have been increasing while wages are generally stable[2].

Unsheltered individuals are much more visible than they were in centuries past. According to Murphy and Tobin, the homeless of the past mainly lived in shelters, while the today the majority can be seen living on the streets[3]. Driving down the street or highway, one might see many homeless camps or unsheltered individuals throughout their normal day. Additionally, the demographic of unsheltered individuals has drastically changed; where in the past the majority of unsheltered individuals were white middle-aged men, today, a quarter of unsheltered individuals are with their families and children, 37% of the unsheltered population are black, 24% are Hispanic, and the proportion of women have increased to about 40%[4].

Hygiene and Health Problems

Due to their residence on the streets, unsheltered individuals are much more likely to experience health related problems as compared to their sheltered counterparts. With more exposure to environmental stressors such as pollution and weather, the health risks for

unsheltered individuals are conceivably higher than the general public. In one study conducted in California, they found that individuals experiencing homelessness were 1.5 times, or an additional 50%, more likely to die from any cause as compared to a sheltered individual[5]. Additionally, their lack of access to resources prevents them from obtaining medicines or preventative health care, eventually leading to more severe and preventable health issues.

Prohibitions on public urination and defecation as well as decreased access to hygiene facilities leads to many avoidable health problems among unsheltered individuals and ultimately perpetuates negative homeless stereotypes. This marginalization of unsheltered individuals is a violation of human rights, defined as, "rights inherent to all human beings, regardless of race, sex, nationality, ethnicity, language, religion, or any other status"[6].

Exposure to urine and feces can result in the transmission of many infectious diseases and negative health outcomes[7]. These diseases may be spread through direct contact, through insects, animals, or water. With the inability to properly dispose of human wastes, it is hypothesized that unsheltered individuals are at incredibly high risk for these infectious diseases. Attempting to retain urine until a public bathroom can be found can lead to urinary tract infections and renal damage[7]. Additionally, fecal retention leads to constipation, abdominal pain, diverticula, and hemorrhoids.

In addition to lack of access to basic hygiene needs, unsheltered individuals also lack access to needed healthcare. For UTIs, specifically, a common treatment is ciprofloxacin Barriers to needed medications include lack of insurance or financial means (e.g., average out of pocket cost for ciprofloxacin is $23.33)[8], decreased prescriptions of antibiotics due to concerns regarding antimicrobial resistance[9], and lack of transportation to pick up the medications.

Urinary Tract Infections

Urinary tract infections (UTIs) are common bacterial infections caused by gram-negative and gram-positive bacteria and affect a known 150 million people globally each year[10]. *Escherichia coli,* a bacteria found in the gastrointestinal tract of healthy adults, is the most common source of UTIs [11]. The severity of a UTI can range from what is classified as uncomplicated to complicated. In uncomplicated UTIs, the infections are mostly in healthy individuals; risk factors include female sex, history of UTIs, sexual activity, vaginal infection, diabetes, obesity, poor hygiene, and genetic susceptibility[10]. On the other end of the spectrum, complicated UTIs are those that may compromise the urinary tract or host defense.

Hygiene practices are strongly correlated to incidence of UTIs[12]. Bad genital health hygiene includes sexual health hygiene (male or female not washing genitals before and after intercourse) and nonsexual health hygiene (not replacing undergarments frequently, lack of toilet paper, lack of proper cleansing the genital area, frequency in bath, etc.)[12]. In a study conducted with 142 individuals, 104 of which had a UTIs, they found that ineffective genital cleansing was an important factor in determining whether a UTI would occur; for example, not washing hands before the toilet, using non-pad materials during menstruation period, cleansing the genitals from the back to front, and using daily pads were some behaviors that were common in those who had UTIs[12].

Yeast Infections

Yeast infections are generally caused by *Candida albicans* and present with symptoms such as vulvovaginitis in female genitalia, balanoposthitis in male genitalia, unusual discharge, and itching or burning sensations in the genital region[13]. Lack of daily showers, oral hygiene, and

increased sweat all may lead to high occurrences of yeast infections[14]. Other factors that are related to the proliferation of yeasts include pregnancy, diabetes mellitus, and the use of antibiotics and corticosteroids[13]. Yeast prefers warm, moist environments; as a result, yeast infections are more likely to occur in individuals with lack of regular hygiene practices. Additionally, Arizona has an extremely warm climate that may be optimal for *Candida albicans*, especially during the monsoon season when humidity is highest in this region.

Rashes

Skin rashes are outbreaks of red, bumpy, scaly, or itchy patches of skin; they can have a multitude of different causes, some of which include exposure to harsh weather, sun, uncomfortable clothing, or lack of hygiene[15]. Individuals experiencing homelessness are particularly affected by skin rashes due to their residence on the streets and limited access to hygiene facilities. One study found that individuals experiencing homelessness reported higher rates of ectoparasitic infestations, bacterial and fungal skin infections, and cutaneous injection-related infections[15].

Diarrhea

Diarrhea is loose, watery stool that can be accompanied with symptoms like nausea, vomiting, abdominal pain, or weight loss. It can be caused by a number of sources including viruses, bacteria and parasites, medications, lactose intolerance, and much more[16]. Diarrhea is very common for many people to experience in their lifetime, but it may pose a serious threat should it persist after a few days. Diarrhea excretes much more water content than healthy stool, and therefore, those who are experiencing diarrhea are at risk for dehydration. Flush toilets,

sewers, and septic tanks provide physical barriers between people and their excreta. With lack of access to these facilities, individuals who have bowel movements in an uncontained area have higher risk for diarrheal disease, malnutrition, and increased child mortality[17].

Lice

Human lice are a subspecies of *Pediculus humanus* and feed on human blood[18]. They can be transferred by pillowcases, hats, hairbrushes, and other things that encounter the head/body. Risk factors for contracting lice include poor clothing hygiene, lack of resources, and cold weather[18]. As a result, unsheltered individuals may be at higher risk than other adults due to their lack of regular access to resources to wash clothing and/or blankets.

Stigmatization of Unsheltered Individuals and Public Urination

Although the homeless experience has differed greatly throughout the years, stigmatization and condemnation of unsheltered individuals has unfortunately remained consistent. In 1877, the Dean of Yale Law School, Francis Wayland, wrote, "As we utter the word, 'tramp,' there arises straightway before us the spectacle of a lazy, shiftless, sauntering or swaggering, ill-conditioned, irreclaimable, incorrigible, cowardly, utterly depraved savage."[2] Today, the term "homeless" evokes similar attitudes as it did in the 1800s.

Stigmas go beyond negative, generalized opinions; they result in diminished opportunities for housing, employment, health care, and much more. This common sentiment leads to obvious second-class citizenship for individuals experiencing homelessness, which results in many social, psychological, and behavioral consequences, including the exclusion of unsheltered individuals from businesses, which often contain the only nearby restroom facility.

Consequently, unsheltered individuals are forced to wait until they are able to find facilities willing to let them in or relieve themselves outdoors.

Restrooms are often the leading issues among equal rights movements. For example, segregated bathrooms were at the center of the Civil Rights Movement, accessible bathrooms at the center of the Disability Rights Movement, and gender-inclusive bathrooms are at the center of the Transgender Rights Movement[7]. With this in mind, and considering the associated health consequences discussed above, it becomes clear how necessary and important bathroom accessibility is for all people.

Bathroom accessibility is a ubiquitous problem for unsheltered individuals as they do not have the luxury of having private facilities, and there is a lack of sufficient public bathrooms. The inability to urinate or defecate in private is dehumanizing to unsheltered individuals. Moreover, public urination and defecation is criminalized heavily, causing even more undue stress. Coupled with lack of access to health care and medical, unsheltered individuals experience a multitude to health problems.

Homelessness in Arizona

With its natural beauty, temperate winters, and affordable prices compared to California, the number of people migrating to Arizona has been steadily increasing over the years. According to a study at the University of Virginia, Arizona's population is expected to expand by 26.1% between 2020 and 2040; this would be an increase of nearly 2 million residents[19].

There is expected to be housing shortages, lack of affordable housing, and lack of job opportunities. Arizona is currently experiencing a housing crisis as property value skyrockets leaving individuals who once could afford living here with little to no housing options.

According to a real estate website, Redfin, there was a 24.4% increase in Arizona home costs from January 2021 to October of that same year[20]. Additionally, the National Low Income Housing Coalition reports that Arizona has twenty-six affordable and available rental homes per 100 extremely low-income renter households[21]. This paints a frightening future for many as they may be evicted and left without housing options. It is reasonable to expect the number of people experiencing homelessness to increase in the months and years to come. The Arizona Housing Coalition Research and Policy Director Joanna Carr accredits the rising numbers of individuals experiencing homelessness to be due to the lack of affordable housing in Arizona[22].

In addition to this major gap, of the 11,000 reported individuals experiencing homelessness in Arizona, 2,000 admit to having chronic substance abuse issues[22]. This is consistent with the fentanyl epidemic that has reached the United States. Fentanyl is a synthetic opioid that is much stronger than morphine, giving it incredibly high addiction rates. Looking at these factors and the lack of structural interference, homelessness is not expected to go away anytime soon in Arizona. It is important to understand what risks individuals experiencing homelessness face regarding their health so that these risks can be mitigated.

Current and Past Research

Unsheltered individuals experience many health-related problems that could potentially be reduced or fully eliminated if they had access to hygiene facilities. Furthermore, lack of access to hygiene facilities can lead to a diminished sense of dignity and increased homeless stigmas. Buechler et al. found that only 34.1% of the survey population, who consisted of a portion of clients of the Street Medicine Detroit, washed their full bodies daily, 29.5% showered between three to six times a week, 29.5% showered one to two times a week, and 6.8% showered

less than once per week[23]. They also asked questions to understand why participants might have difficulty accessing public showers; barriers included too few public showering facilities, concern about items being stolen, and long wait times for showers[23]. In addition, laundry practices were quantified, which reported that 56% of participants washed their clothes three times in the past month and 9.3% had not washed their clothes in the last month. While this study was related to the focus of my research (i.e., access to facilities for personal hygiene and impacts on health), it was solely focused on access to hygiene facilities and did not explore related health issues.

In addition to health problems that can affect all individuals experiencing homelessness, individuals that menstruate are especially susceptible to further health complications. Menstruation is a monthly experience for individuals with a uterus and is often accompanied with painful sensations and socially enforced stigmas. In addition to the actual experience of menstruation, discriminatory taxes (i.e., the "pink tax") are placed on menstruation products, making them hard to access for low-income and vulnerable populations[24]. Stigmas worsen the hardships in procuring and changing menstrual products, as well as, accessing restrooms. In a study examining the experiences of unsheltered individuals who menstruate, two participants explained that the stigmas increased their feelings of isolation:

> "…when you can't clean yourself, you don't want to be out, you don't want to be seen, because you feel like everybody else can smell and see you"[24].
>
> "I feel like the most annoying thing when being, like living outside, and getting your periods is leaking through your clothes. It's embarrassing"[24].

Managing menstruation for individuals experiencing homelessness can be incredibly burdensome; the need to shower and launder (to clean stained clothing) increases during

menstruation. One study reported that unsheltered individuals with a uterus are more likely to be seen in local health clinics for gynecological problems as compared to other health problems, such as increased rates of urinary tract infections, yeast infections, and vulvar contact dermatitis, which were primarily menstrual-related issues[24]. This study quantifies common problems that menstruating unsheltered individuals face, as well as associated stigmas that hinder their ability to care for themselves.

As a result of lack of access to hygiene facilities, stigmatization of unsheltered individuals increases when housed people view defecating or urinating in public. Kim, Lin, Hiller et al. conducted a study that examined tweets on the popular social media platform, Twitter, and found that most people associate homelessness with lack of hygiene, undesirable body odor, and negative stereotypes[25]. One Twitter user wrote that they were "spraying Febreeze on homeless people"[25]. This study by Kim, Line, Hiller et al. exemplifies underlying attitudes held by the general population, which leads to most people placing an internal locus of control on causes of homelessness. This results in decreased advocacy for addressing social determinants of health and necessary structural interventions.

The three studies reviewed above reveal the lack of sufficient access to hygiene facilities and the role that stigmas play in the unsheltered experience. There was a shortage of studies specifically relating to access to hygiene facilities and related health affects in unsheltered individuals. Therefore, the study conducted in this thesis is relevant and the subject is not sufficiently studied. In addition, there are no studies to my knowledge that have been conducted in Arizona about relationships between hygiene and homelessness, which may reveal further barriers not experienced in other parts of the United States. This is important because Arizona has unique challenges due to high average temperatures compared to the rest of the U.S.,

increasing housing costs, and an increasing unsheltered population. In addition, Tucson, Arizona, where this study was conducted, is roughly sixty miles from the U.S.-Mexico border, which shows the potential for a high immigrant population who come with unique challenges and barriers to housing.

Research Process

The study objective was to understand how lack of access to basic hygiene facilities (i.e., bathrooms and showers) leads to a specific list of common health problems in unsheltered individuals (i.e., urinary tract infection, yeast infection, rash, diarrhea, and lice). The end goal of this study is to shed light on the hygiene and health related disparities and discrimination (e.g., lack of access or denial to public restrooms) that unsheltered individuals face daily.

Study Design

To understand how access to hygiene facilities is related to health problems in unsheltered individuals, an in-person verbal survey was administered August – December 2022 to unsheltered individuals in Tucson, AZ, in English or Spanish, involving questions related to access to hygiene facilities and health experiences with potential outcomes related to lack of access. The verbal surveys were administered by a bilingual researcher and volunteer in coordination with the Homeless Outreach Team at El Rio Community Health, through which access to the unsheltered community was made possible. Inclusion criteria for participants included being 18 years or older and being verbally fluent in English or Spanish.

Informed consent was obtained orally from each participant. The primary investigator explained the purpose of the survey and allowed the participant to ask any questions should they have any. The script read to each participant prior to conducting the survey is shown below.

> "Do you have any further questions about the study or survey? Do you consent to the survey?
>
> *If yes… [will have checked inclusion criteria before booking interview]*
>
> "Thank you for your time and for agreeing to participate in our study. I am going to ask some questions about your experiences as an unhoused person and how your hygiene/health have been affected. You may stop the survey at any time or take a break. You also do not have to answer any questions which make you uncomfortable. You can share as much or as little information with me as you are comfortable with sharing."

After obtaining informed consent, the participant was asked sixteen questions that were split up between demographic questions (n=4) and questions related to hygiene, health, and homelessness (n=13). The questions asked throughout the survey are written in Table 1 below.

Quotes were transcribed in real time, when possible. Responses to categorical questions were recorded digitally by the researcher. The team offered medical services to individuals who needed assistance.

Table 1. *Survey Questions*

Demographic	Question
	What is your age?
	What is your race?
	What is your ethnicity?

	What gender do you identify with?
Hygiene, Health, and Homelessness	Question
	What are some of the challenges you face in maintaining personal hygiene? Where do you go to use the restroom or shower? How often do you shower, and do you have soap available to you? Have you had a urinary tract infection, difficulty peeing, or a burning sensation when peeing since being homeless? How many times? Have you had a yeast infection since being homeless? How many times? Have you had a rash since being homeless? How many times? Have you had diarrhea since being homeless? How many times? Have you had lice since being homeless? How many times? Did you seek medical care if you had any of these issues? What are some of the challenges you face in seeking medical care for these issues?

	Is there anything else you would like to share about personal hygiene practices or access? Is there anything else you'd like to share about your experience or thoughts related to how access to hygiene has affected your health?

Note. This study protocol was reviewed and approved by the University of Arizona Institutional Review Board (Study Protocol 00001478).

Results

Thirty participants were surveyed throughout the data collecting period. Participating unsheltered individuals ranged from ages twenty-nine to sixty-eight, with a mean age of forty-seven years old (Figure 1). Seventeen percent (5/30) of participants were Black, 47% (14/30) were White, 33% (10/30) were Hispanic, and 3% were Native American (Figure 2). Fifty-three percent of participants were male and 47% were female (Figure 3).

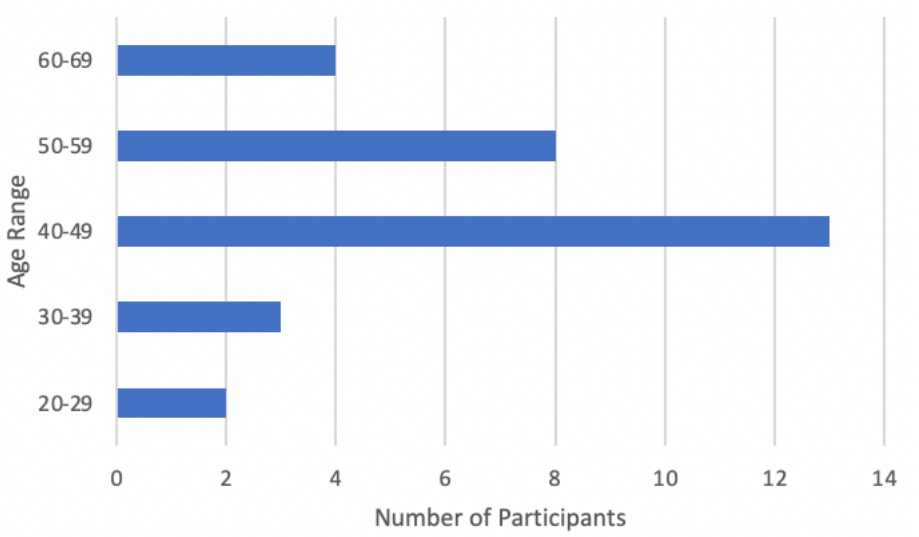

Figure 1. *Age demographics of participants*

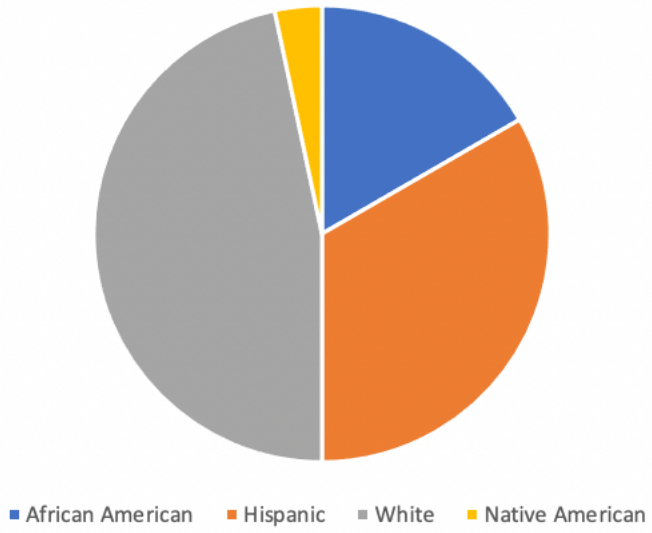

Figure 2. *Race and ethnicity demographics of participants*

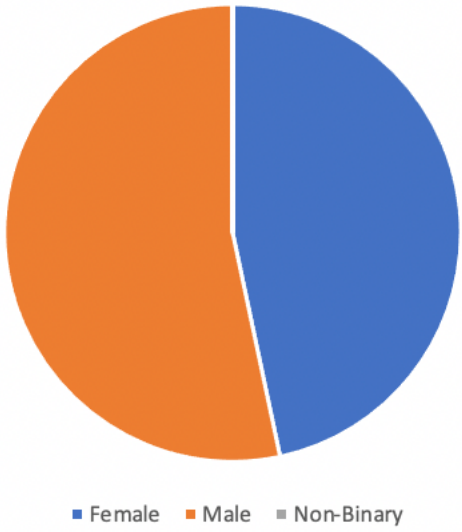

Figure 3. *Gender demographics of participants*

The major challenges and barriers to maintaining personal hygiene for the participants included access to water, access to soap, privacy concerns, and concerns for the safety of themselves or their things, with access to water being the most commonly reported barrier (100%, 30/30) (Figure 4). Seventy seven percent (23/30) of participants used the restroom or showered outdoors, 13% used hygiene facilities at a shelter, 37% at a friend or family member's home, and 87% in a public restroom (Figure 5). Seven percent reported showering daily, 53% showered weekly, and 37% showered monthly (Figure 6). Twenty three percent of participants reported that they have never been asked to leave a restroom since being unsheltered, 7% of participants reported being kicked out of a restroom once, 17% two to three times since being unsheltered, 53% were kicked out of a restroom more than three times since being unsheltered (Figure 7).

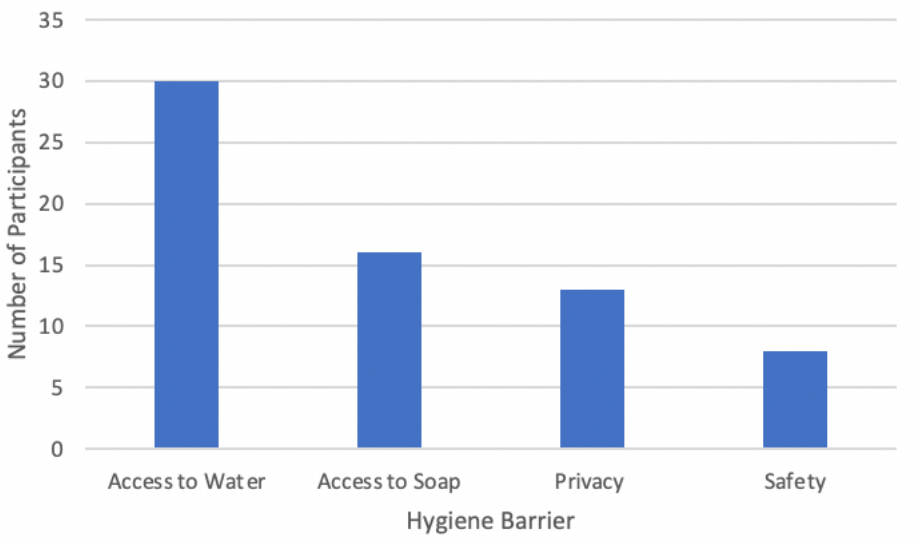

Figure 4. *Barriers to hygiene as reported by the participants*. It should be noted that total responses sum to over 30, greater than our sample size, because participants could select more than one category.

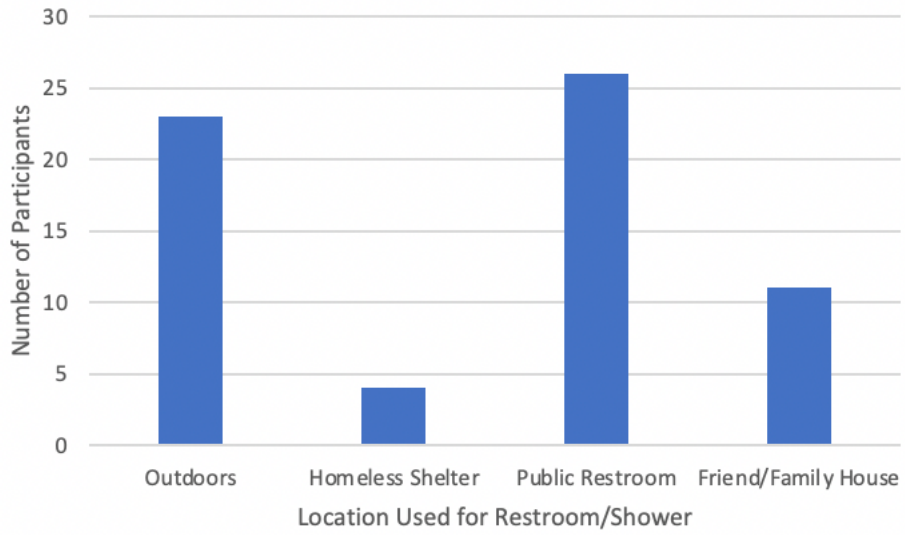

Figure 5. *Locations used to shower or use the restroom*. It should be noted that total responses sum to over 30, greater than our sample size, because participants could select more than one category.

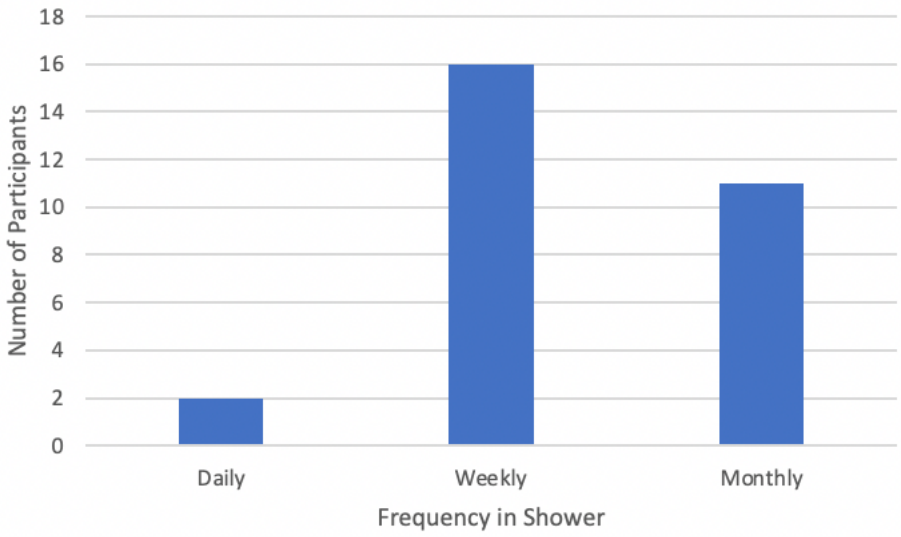

Figure 6. *Reported frequency in showers*

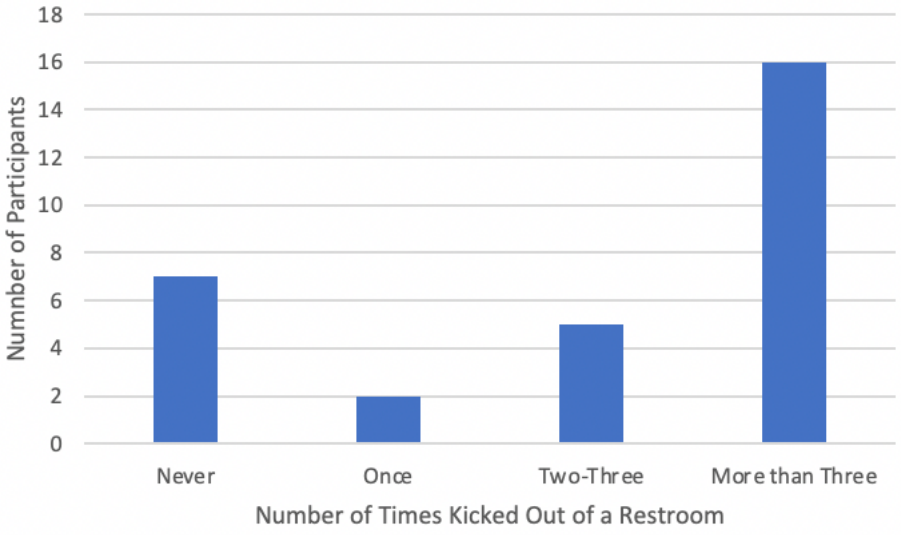

Figure 7. *Number of times kicked out of a public restroom*

Sixty-three (19/30) percent of participants reported never having experienced a UTI since being unsheltered, 7% (2/30) reported having experienced one UTI since being unsheltered, 13%

(4/30; all female) reported experiencing a UTI two to three times since being unsheltered, and 17% (5/30; all female) reported experiencing a UTI more than three times since being unsheltered (Table 2).

Table 2. *Frequency in Urinary Tract Infections*

Frequency in UTIs	Number of Participants (n=30)	Individuals who identified as Female (n=14)
Never	19	5
Once	2	0
Two to Three	4	4
More than Three	5	5

Seventy (21/30) percent of participants never experienced a yeast infection since being unsheltered, 10% (3/30; all female) had one yeast infection since being unsheltered, 13% (4/30; three were female) experienced a yeast infection two to three times since being unsheltered, and 6.7% (2/30; one was female) experienced more than three yeast infections (Table 3).

Table 3. *Frequency in Yeast Infections*

Frequency in Yeast Infections	Number of Participants (n=30)	Individuals who identified as Female (n=14)
Never	21	7
Once	3	3
Two to Three	4	3
More than Three	2	1

Thirty-seven (11/30) percent of participants never experienced a rash, 20% (6/30) of participants experienced a rash once, 10% (3/30) two to three times, and 33% (10/30) experienced a rash more than three times since becoming unsheltered (Table 4).

Table 4. *Frequency in Rashes*

Frequency in Rashes	Number of Participants (n=30)
Never	11
Once	6
Two to Three	3
More than Three	10

Forty-three percent (13/30) of participants never experienced diarrhea since being unsheltered, 10% (3/30) of participants experienced diarrhea once, 30% (9/30) two to three times, and 17% (5/30) experienced diarrhea more than three times since becoming unsheltered.

Table 5. *Frequency in Diarrhea Experiences*

Frequency in Diarrhea	Number of Participants
Never	13
Once	3
Two to Three	9
More than Three	5

Additionally, of those that experienced one or more medical problem, 33% sought professional medical care. Barriers to care that were reported include difficulty in making an appointment, bad prior experiences with medical professionals, difficulty in finding transportation to get to the appointment, and the cost of medical bills (Figure 8).

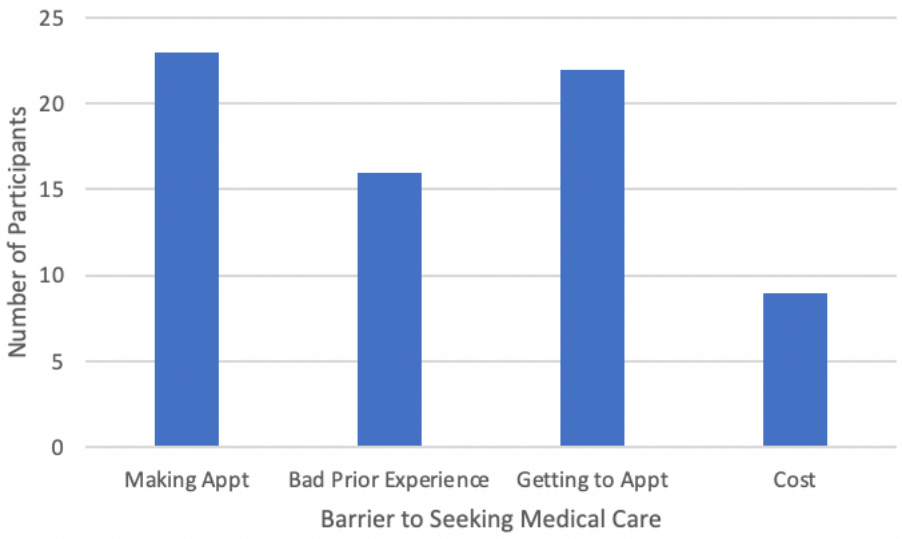

Figure 8. *Barriers to Seeking Medical Care*. It should be noted that total responses sum to over 30, greater than our sample size, because participants could select more than one category.

Other varied data emerged in participants' responses. More than one participant mentioned that it was incredibly difficult to find public showers that were safe and clean, and as a result, they more often cleaned themselves with wipes or wet towels in sinks of public restrooms. Another participant who resides in a public park where there are approximately 40 other unsheltered individuals explained that there is a public shower, but not everyone at the site is allowed to use it due to stereotypes and concerns for violence from some members; additionally, there is only one restroom available, making the lines incredibly long. Additionally, this participant explained that the park restrooms are open only from seven am to seven pm, forcing them to go outdoors outside of this time frame.

One participant explained a loss of identity associated with lack of hygiene. This person felt that they were able to express themself with the help of makeup, but because they cannot wash their face before or after placing makeup on, they have decided that it is too difficult to

wear makeup on the streets. Additionally, they believe their inability to wear makeup and present themself as they wish increases negative perception by the public. Several participants felt high levels of discrimination after being kicked out of public restrooms, which they felt was primarily due to their appearance since they were not causing any disturbances.

Regarding barriers to seeking medical care, many participants explained that that it was hard finding somewhere to charge their phones to know what time it was and to find directions to their medical appointments. Other barriers reported included not knowing where to go, who to see, or what health concerns should have priority. Two individuals living together in a tent described some specific hygiene challenges:

> "Our skin just misses lotion. Being homeless means being exposed to the elements 24/7 and after a few days our skin is very dry, rough, and cracked. It also becomes impossible to do laundry all the time because you can only clean the same shirt so many times before there's no point anymore. It makes it harder for us to focus on our hygiene because almost every night the police run us out of where we're staying, but like where do they expect us to go? The city just hurts the problem of homelessness by kicking people out of their apartments and not giving affordable housing options. Getting high [on drugs] is an escape from all the pain we experience on a daily basis. If you lived on the streets, you'd see that drugs are the only way out of this reality. We know if we went to the hospital for our health problems, the doctors or staff would just look at us funny, so we'd rather just wait it out."

Discussion

Key Findings

Bathrooms were created to ensure privacy, safety, cleanliness, and dignity for an individual when urinating or defecating. For the unsheltered community, access to these safeguards is difficult, if not impossible. Due to discrimination and negative stereotypes, many businesses prevent unsheltered individuals from entering their buildings and using their facilities. This experience is reflected in the results of the study, which revealed that approximately 77% of individuals surveyed have been asked to leave a restroom at least once due to their status as unsheltered. With limited access to hygiene facilities, many unsheltered individuals use the restroom outdoors, including 77% of the survey population. According to the survey, only 13% of those surveyed utilized a homeless shelter for the restroom or to shower. However, when visiting the eleven homeless shelters in Tucson, they are nearly always at full capacity and are being highly utilized, revealing inadequate shelters for the current population.

Arizona has a hot and dry climate, making water scant but incredibly important. All thirty participants described access to water being their number one barrier to hygiene. This reveals that water, a basic human necessity, is seemingly only for the privileged. For a single 20-ounce water bottle, the average cost is approximately $1.50; it is recommended that for each person to drink approximately 56 ounces of water a day. This would require unsheltered individuals to purchase three 20-ounce water bottles a day, costing $4.50 per day. With no steady income and with other financial pressures like feeding oneself, this is a hefty price for drinking water. As a result, it is unlikely that unsheltered individuals will regularly buy water to wash their hands, body, or for other hygienic practices.

Unsheltered women have added difficulties and stresses as revealed by the survey. Of the 13 participants who described privacy as being a significant barrier to hygiene, 11 were women. In addition, 8 participants listed safety as a major barrier to hygiene, and 6 of which identified as women. Approximately 82% of individuals who experienced a urinary tract infection at least once identified as women; approximately 78% of individuals who experienced a yeast infection at least once were women.

Of the participants that experienced one or more health problem, only 33% sought medical care. This was due to many different factors including lack of transportation to go to an appointment, lack of access to a cell phone to schedule an appointment, bad prior experiences with health care professionals, and cost. Contrary to public perception, cost was the least pressing barrier to seeking medical care. These barriers demonstrate a significant gap between health care professionals and the unsheltered community. This study has shed light for the need for more medical providers who are informed in the unsheltered experience and are able to give culturally competent care. This would include leaving preconceived notions and stereotypes about unsheltered individuals behind and meeting each patient without judgement. In addition, because transportation was such a significant barrier, outreach medicine or transportation provided by hospitals/clinics is necessary. El Rio's Homeless Outreach Team is a stellar example of this. The team meets unsheltered individuals where they are, making medical care accessible, convenient, and feasible for the community.

Limitations

This study included a small sample size, which could have impacted the reliability of the results. In order to confirm the results of this study, it would be beneficial if it were repeated with

more participants so that results could be more representative of the entire unsheltered community in Tucson. The small sample size might be due, in part, to the fact that the survey was primarily conducted between 6 am and 10 am, when some individuals were still asleep or not in the headspace to speak with a stranger.

The study also relied on truthful answers given by the participants, which may have impacted the legitimacy of the conclusions. Social desirability bias is the tendency to deny socially undesirable traits in an attempt to paint the speaker in a favorable light[26]. In many instances, an individual might lie or exaggerate in order to present an agreeable impression. Modern day norms place negative stereotypes and values associated with being unsheltered, which include hygiene related issues like smell, appearance, and illness. As a result, it is possible that participants of this survey withheld or exaggerated information in order to fit into socially accepted molds. This could have manifested in the participants overestimating how often they shower, underestimating how many times they have experienced a health problem, or how many times they have been removed from a public restroom.

In addition to social desirability bias, recall bias is a relevant potential confounding factor that may have influenced the results of the survey. Recall bias describes how some individuals overestimate levels of positive and negative effects when asked to retrospectively recall certain events. Because the survey asked participants to recall experiences in the past, it is possible that there was recall error, which can result in recall bias if they under- or over- reporting events [27].

This study was conducted in conjecture with El Rio's Homeless Outreach Team, a trusted collaborator with the unsheltered community; this was done in hopes of eliciting honest responses. In addition, the participants were ensured that their answers would not be tied to their names or any other identifying information to encourage sincere and candid answers. A non-

judgmental tone was used throughout the administration of the survey and resources were offered to demonstrate a level of genuine concern for their wellbeing.

Conclusions

Unsheltered individuals experience a multitude of stressors, which complicate accessing various basic needs, including hygiene care. With the worry of finding a safe and warm place to fall asleep and food throughout the day, hygiene concerns often fall to the side. Combined with the already scarce number of public restrooms in Tucson, many unsheltered individuals use the restroom outdoors, with lack of access to running water to wash one's hands or perhaps even toilet paper. As a result, unsheltered individuals may be at a higher risk for related health issues such as, UTIs, yeast infections, diarrhea, and rashes. With lack of transportation or reliable phone access, it can be incredibly difficult for unsheltered individuals to make appointments with health care providers, which may exacerbate underlying health issues that could have been easily treated if caught early on. This study has two major recommendations that may significantly improve the wellbeing of unsheltered individuals who reside on the streets. First is the creation of more public restrooms in areas with high unsheltered populations; this will promote healthy hygiene practices and preserve privacy and dignity when using the restroom. The second recommendation is the formation of more medical teams that provide specialized care for unsheltered individuals with components of outreach, thus removing transportation or phone barriers.

Personal Connection to the Project

When I began at the University of Arizona, my experience with unsheltered individuals was practically zero. I saw them when I volunteered at soup kitchens, or when I walked around, smiled, and said, "Sorry, I don't have any cash on me," and occasionally bought them a meal or some water. However, it all changed when I was given the experience to intern with El Rio's Homeless Outreach Team, headed by Marketa Jansky.

Growing up as a Latina woman, I was always aware that I wanted to work with vulnerable and minority communities, however, I was naïve about what that looked like. On my first day of the internship, I was embarrassingly ill-prepared; I showed up early in the morning just as the sun rose at a park in Tucson, ready for some outreach, although I have to admit I was unaware of what that truly meant. However, as the day went on, I helped Marketa dress a few wounds, but I mostly just observed. The way she interacted with patients was inspiring. With the perfect balance of tough love, acceptance, reverence, and acknowledgement of their situation, I was able to notice qualities important to my hopeful future as a medical provider.

As my semester internship at El Rio came to a close, I was able to understand the importance of population-informed care. Medical outreach is the embodiment of this promise to seek understanding in diverse ways of life, meet with no judgement, and work together to forge positive pathways for an individual's health. Gratefully, my internship with El Rio has continued past my expected end date and I have been working with Marketa and the whole outreach team for almost two years now.

The knowledge gained from my time as an undergraduate student and especially through my minor, Health and Human Values, provided me with the tools to delve deeper into uncomfortable situations, to seek shared humanity, to recognize social determinants of health,

and to challenge the assumptions we as a society make every day. Coupled with my newfound passion for working with unhoused individuals, I was certain I wanted the culmination of my undergraduate to echo these values.

The idea for this specific thesis came from a childhood dream I shared with my dad: to create convenient, clean, and safe showers and bathrooms for individuals experiencing homelessness. We named this idea “Project Dignity”. I hope that this thesis will help serve as the basis for this aspiration and bring light to the injustice and hurtful stigmatization of unsheltered individuals.

Acknowledgements

Thank you to the participants, Homeless Outreach Team at El Rio, Old Pueblo Community Services, City of Tucson, Cornerstone Behavioral Health, CODAC, COPE, and all the other outreach agencies in Tucson for the hard work you do for the unsheltered community. A special thank you to Dr. Amanda Wilson and Marketa Jansky, whose help throughout this project has been immense.

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