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Young Latinas/os' Environmental Commitments: The Case of Waste

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Abstract

This participatory research project aimed to identify young people's perceptions of the natural and built environment in their neighborhoods, including how social inequities shape those environments, and how their community and governments can improve them. The study took place with 25 young Latinas/os, ages 14 to 18, many of whom lived in a formerly unincorporated neighborhood (known as *colonia*) in Pharr, Texas, located in the state's Rio Grande Valley region. Through a walkalong, photovoice, and focus groups, participants identified waste management as a resounding priority. Their reflections highlighted their motivations behind and actions toward addressing this problem. This study makes two empirical contributions to scholarly and applied discussions on young people's outdoor experiences. First, young people's prioritization of waste highlights the role that trash—often in the form of scattered objects, small and large—has in shaping young people's outdoor experiences. Second, young people are committed to improving waste conditions through individual and group actions, and they identified needed structural changes. Pharr youths' environmental commitments call for investment in waste management and set the stage for more generative ways of experiencing the natural environment.

Keywords

environmental justice; infrastructure; Latinas/os; participatory research; urban planning; waste; young people

1. Introduction

1.1. Waste and Communities

Environmental justice researchers have examined how waste negatively and disproportionately affects Black and Latino communities, focusing primarily on the siting of disposal facilities, including incinerators and recycling facilities (Pellow, 2004; Saha & Mohai, 2005; Schwarz et al., 2015). White communities generate this outcome by "exporting" waste to historically marginalized communities (Marbury, 1995). Pellow (2004) famously coined the phrase "garbage wars" to refer to Black and Latino communities' battles against this environmental racism. In addition to the increased likelihood of having a waste facility in their neighborhoods, many historically marginalized communities also must deal with the problem of scattered waste in public spaces. Because conventional waste management systems are typically expensive and publicly funded, unincorporated communities and jurisdictions with high levels of poverty often have inadequate management systems.

Communities, real estate developers, and municipalities can have different narratives about waste; simply cleaning up a site can undermine communities' views of the problem (Dillon, 2014). Waste can be perceived positively or negatively, as something that can or cannot be controlled, and in terms of how groups see themselves as accountable; these diverging perceptions shape underlying interests and waste management strategies (Moore, 2012). Similarly, recycling has been critiqued for its inaccessibility and perceived as a symbol of social status. Household recycling implicates individual consumers as responsible for waste and has been promoted by petrochemical companies to reframe waste discourse away from producer responsibility (Allen et al., 2024; Müller & Schönbauer, 2020). Recycling is also expensive and technologically limited: most plastics marked as "recyclable" cannot be recycled, and less than 14% of processed material finds its way into new plastic products (Uekert et al., 2023). These limitations led Balwan et al. (2022) to argue against municipalities' present hyperfocus on recycling in favor of an integrated circular economy approach to waste management. Structural waste management strategies that address land use, education, and racial justice can lead to more equitable waste management (Khalsa, 2021).

The present study explores young people's perceptions of waste in their neighborhoods, the social roots of this problem, and the environmental improvement actions they expect from their communities and governments. These perceptions have implications for local public agencies that seek to be more responsive to community priorities in their environmental stewardship and planning efforts.

2. Literature Review

2.1. Youth Participatory Action Research

Despite being greatly affected by inequities in their natural and built environment, young people have been historically underrepresented in urban planning and community development efforts (Gurstein et al., 2003; Knowles-Yánez, 2005; Osborne et al., 2016; Passon et al., 2008). When participation does take place, local governments tend to view young people as a demographic to inform rather than to include in decision-making processes (Palmy David & Buchanan, 2019). Numerous studies have demonstrated that young people are cognizant of inequality, some detailing how children note social class differences and others emphasizing

how teenagers identify structural and institutional issues influencing economic disparities (Diaz et al., 2022; Dickinson et al., 2023; Flanagan et al., 2014; Ramsey, 1991; Rauscher et al., 2017). Young people of color, in particular, understand inequities through their personal experiences with marginalization (Roy et al., 2019). Their experiences and insights have prompted scholars to call for the inclusion of young people in planning processes as important stakeholders in their communities (Frank, 2006; Knowles-Yánez, 2005; Osborne et al., 2016; Passon et al., 2008).

Youth Participatory Action Research (YPAR) is a methodological approach that emphasizes the production of knowledge by young people. Rooted in the ideas of critical consciousness and liberatory education, YPAR conceptualizes young and adult participants as collaborators in knowledge production via critical reflection and dialogue about systems of oppression (Freire, 1970). YPAR challenges traditional power dynamics by highlighting partnerships between adults and young people to conceptualize problems, gather and analyze data, and address community concerns (Anyon et al., 2018; Kennedy et al., 2019).

Systematic reviews on YPAR have demonstrated that the approach generates positive outcomes for communities (Anyon et al., 2018; Shamrova & Cummings, 2017), including an increased sense of agency and leadership among young people, structural changes that allow more opportunities for young people to participate, policy changes, and infrastructure improvements (Anyon et al., 2018; Shamrova & Cummings, 2017). While YPAR has been mainly used in the fields of education, public health, and community psychology, there is an emerging body of literature that also uses the approach to investigate local environmental justice concerns (Brickle & Evans-Agnew, 2017; Curiel et al., 2022; Nolan et al., 2021). This literature has highlighted how place-based YPAR leads young people to connect theories of social justice to their own experiences with built and natural environments (Delia & Krasny, 2018).

Place-based YPAR can bring new and creative perspectives from young people to address environmental issues while also equipping young people with skills to research and advocate for environmental justice (Ozer et al., 2020). For example, YPAR studies on local built and natural environments have revealed links between systemic environmental racism and spatial pollution disparities (Johnston et al., 2020) and between spatial segregation and the reinforcement of social stratification in public school design (Solis et al., 2022). The present study utilizes YPAR to document young people's perspectives about scattered waste, how this situation has come to be, and the actions necessary to address this problem.

One specific methodology commonly used under place-based YPAR, and in this study, is photovoice, in which participants express community concerns, priorities, and ideas through visual and narrative storytelling. Through photovoice, people reflect on and photograph their community's strengths and problems, discuss the meaning of photographs to co-produce knowledge about their communities, and reach policymakers (Wang & Burris, 1997). Like YPAR, the goals of photovoice are influenced by Freire's concept of critical consciousness as it promotes non-hierarchal dialogue to collectively analyze power structures and systems of oppression affecting communities and everyday issues (Shimshock, 2008; Wang & Burris, 1997). Communities that are often underrepresented in research, urban planning, and policymaking can use photovoice to highlight everyday experiences (Sprague et al., 2021).

Photovoice has been used to capture the problem of waste and necessary responses to the problem. Young people in five studies specifically emphasized the environmental and health effects of waste (Cubilla-Batista

et al., 2016; Kovacic et al., 2014; Madrigal et al., 2014; Mmari et al., 2014; Sprague et al., 2023), as well as detriments to the aesthetic appeal of local parks (Madrigal et al., 2014). In response, some participants called for individual ways to address these concerns, such as raising awareness about the effects of littering and picking up trash (Kovacic et al., 2014; Sprague et al., 2023), while others noted structural action steps like communicating with the trash management commission (Cubilla-Batista et al., 2016).

2.2. Critical Consciousness as a Framework for Understanding Environmental Justice Commitments

The diversity of individual and structural actions proposed to address waste injustices reflects the diverse constructions of waste among individuals and communities, as well as a complex interplay of social, political, and economic realities. Critical consciousness has been used as a framework in social and environmental justice scholarship to unpack how these complex intersections of epistemologies, experiences, and political contexts co-inform action. First introduced by Brazilian popular educator and critical theorist Freire (1973), critical consciousness refers to an individual's ability to analyze structural injustices and participate in actions contesting them. One model proposed by Watts et al. (2011) articulated three dimensions of critical consciousness: (1) critical reflection, or the ability to recognize and analyze injustice; (2) political efficacy, or belief in one's ability to effect change through action; and (3) critical action, or the actual actions taken by individuals or groups to address injustice. These three dimensions reflect the multiplicity of factors that co-inform environmental justice commitments. In the case of waste, photovoice highlighted how young people's critical consciousness shapes their environmental commitments; in some cases, the research process also strengthened these commitments. When prompted to view and capture their natural spaces through a critical lens, they observed impediments to comfort in those spaces and their root causes, while proposing ways forward.

2.3. Purpose of Study

The purpose of the present study was to explore young people's perceptions of their natural environment, predominantly local parks, by using photovoice and YPAR methodology. Supplemented by a walkalong at a park located in a neighborhood consisting of former *colonias* in Pharr, Texas, and subsequent focus groups with youth co-researchers, a theme that emerged was scattered waste. We asked: (a) How is waste perceived to affect young people's experience of the natural environment?; (b) What social and structural factors are perceived to contribute to waste in the natural environment?; and (c) What actions, and by whom, are necessary to address the problem of waste? By adopting a critical consciousness framework, the study suggests how an environmental justice issue can be proactively dealt with at the individual, community, and government levels. It also highlights young people's experiences, which have traditionally been understudied, and who, by virtue of their high participation in outdoor space, have the greatest stake in directing environmental stewardship and planning efforts.

3. Context and Methods

3.1. Setting

This project is grounded on partnerships between researchers at The University of Texas at Austin, Texas Children in Nature Network (TCiNN), and community-based and civic organizations in Pharr, Texas, to form

the Coalition for Youth, Health, and the Environment (Coalition). The Coalition's mission is to understand young people and families' environmental justice priorities for the Rio Grande Valley (RGV). Although the current article focuses on waste, as it emerged as a resounding theme from photovoice, young people also engaged in participatory mapping and co-designing of nature spaces in their community, including heat mitigation (discussed elsewhere).

The Coalition specifically chose Pharr as a setting to organize a photovoice project because of TCiNN's strong network with local community organizations and the City of Pharr's goal to expand greenspace access (Ab Shama et al., 2024). Pharr is a city of 80,179 residents (95% Latina/o) in Hidalgo County and abuts the US-Mexico border (United States Census Bureau, 2024). The median household income of $45,016 is lower than that reported for Texas and the United States, but is, on average, higher than many communities in the RGV (United States Census Bureau, 2024).

Pharr is adjacent to several *colonias*, or unincorporated subdivisions that lack basic infrastructure and municipal services such as paved roads, streetlights, and trash pickup, concentrated alongside the US/Mexico border. The rise of *colonias* dates back to the 1950s and 1960s when low-income migrant farmworkers from the *Bracero* program settled on urban fringes due to limited affordable housing (Rivera, 2023). Rural landowners subdivided their lands and sold them to migrant farmworkers and their families, often with no house or infrastructure (Nevárez Martínez et al., 2019; Rivera, 2023). Infrastructure and municipal service problems persisted because of areas not being incorporated by cities at the time. Starting in the 1980s, many *colonias* gained media attention, political recognition, and annexations as residents advocated for better infrastructure, services, and housing conditions (Rivera, 2023). Despite these efforts, substandard living and infrastructure conditions persist due to jurisdictional fragmentation, limited municipal funding, and selective municipal underbounding in annexing *colonias* (Nevárez Martínez et al., 2019).

Most of the youth co-researchers in this study live in and contributed data depicting the neighborhood of Las Milpas in south Pharr. Las Milpas consists of several *colonias* that were annexed by the City of Pharr in 1987 (Garza, 1995). Geographically distant from downtown Pharr, Las Milpas still has substandard infrastructure and a poverty rate of 62.1% as of 2016, far higher than the rest of Pharr (United States Census Bureau, 2024). The City of Pharr does not offer bulk pickup services, and while the City operates a recycling shed, this single facility is located in downtown Pharr, 8 miles or more than a 20-minute drive from Las Milpas (City of Pharr, n.d.-a, n.d.-b). These deficiencies in waste disposal infrastructure and the absence of trash and recycling bins in some parks and public spaces have resulted in illegal dumping in Las Milpas. Many households do not have feasible alternatives to dumping their waste in public spaces, which can lead to misconceptions that underserved communities like Las Milpas neglect their public spaces and allow dumping to go unchecked. This narrative of community neglect can negatively impact regional and national perceptions of these communities, ultimately driving further state and federal disinvestment in their infrastructure. As a way of pre-empting this cycle of disinvestment, community organizations such as ARISE Adelante (A Resource In Serving Equality *moving forward*) and LUPE (*La Unión Del Pueblo Entero*) have played a critical role in mobilizing for expanded and improved municipal and county services in Pharr and *colonias*, in so doing putting forward a critical counter-construction of waste in which communities are not to blame for systemic infrastructure deficits (LUPE, n.d.).

3.2. Recruitment

TCiNN recruited youth co-researchers through the Pharr-San Juan-Alamo Independent School District. Interested young people completed an online form with their contact information. Researchers proceeded to contact young people to ensure inclusion criteria were met and to arrange for a time to administer informed consent to parents/guardians. Youth co-researchers were recruited based on the following criteria: (a) between the ages of 13–18; (b) lived in the RGV area; and (c) fluent in English and/or Spanish. Written informed assent and parental consent (for minors) were obtained for 25 young Latinas/os aged 14–18.

3.3. Photovoice Process

The photovoice process consisted of three workshops in April 2023. Workshops were facilitated in English and Spanish. The first workshop introduced the overall project to the youth co-researchers and discussed environmental justice and its context in Pharr. At the end of this workshop, the youth co-researchers were asked to take pictures of (1) the intersection closest to their homes, (2) something in their neighborhood that made them feel safe, and (3) something in their neighborhood that made them feel unsafe. All youth co-researchers owned cellular phones with cameras, which they used to take photos for this study.

The second session started with workshops on photography techniques and ethics, followed by a walkalong in Jones Box Park in Las Milpas. The 25 youth co-researchers formed four groups, each focusing on one of the following assigned themes at the park: recreational possibilities, accessibility, comfort, and safety. Additionally, while taking photographs, the groups explored their themes through the questions: (1) What is working? and (2) What could be better? After the walkalong, the youth co-researchers were introduced to the SHOWeD Method, a way to communicate the meaning behind photos (Shimshock, 2008; Wang & Burris, 1997). The SHOWeD method consists of the following questions to analyze a photo: (1) What do you *See* here?; (2) What is really *Happening* here?; (3) How does this relate to *Our* lives?; (4) *Why* does this condition *Exist*?; (5) What can we *Do* about it? Afterward, the youth co-researchers selected photos about which to write narratives in small groups using the SHOWeD method, discussing their communities, why they took their photos, and interconnecting issues between their photos to identify strategies to address local concerns.

At the third workshop, the youth co-researchers finished writing their narratives and participated in focus groups where they reflected on their experiences with photovoice. Youth co-researchers discussed what they liked and disliked about the photovoice project, what they learned about themselves and their communities, and how they can use what they learned to build their leadership skills and take action. Focus groups were audio-recorded and later transcribed verbatim.

The Coalition organized an exhibition in Pharr in November 2023 and at The University of Texas at Austin in February 2024 to showcase the youth co-researchers' work to local leaders and the greater community. At the exhibition openings, the youth co-researchers discussed their experiences and what they learned during the photovoice project, highlighting the theme of young people's knowledge and providing solutions on how to tackle community issues. Additionally, the research team wrote a report with the goal of reaching policymakers, synthesizing the youth co-researchers' work, and identifying initial priority areas for Pharr's natural and built environment (Ab Shama et al., 2024).

3.4. Data Analysis and Interpretation

For this article, we focused on photovoice and focus group data related to waste. Because of YPAR's and photovoice's roots in critical consciousness theory and because further developing young people's environmental critical consciousness was among the goals of the photovoice project, we used a critical consciousness framework to deductively and inductively analyze youth co-researchers' reflections on waste. We utilized Watts et al.'s (2011) three dimensions of critical consciousness—critical reflection, political efficacy, and critical action—as a framework to identify the ways in which individual and collective understandings, individual motivations, and sociopolitical realities co-inform young people's environmental commitments and actions.

The photovoice narratives and focus group transcripts were read repeatedly to identify all mentions of waste, landfills, trash, recycling, cleaning up spaces, and other related words. These mentions were then coded and categorized according to the three dimensions of critical consciousness: critical reflection, political efficacy, and critical action, following Watts et al. (2011).

4. Findings

Analysis of the photovoice and focus group data yielded three major themes: (1) disparities and disinvestment, (2) under-representation and self-perception, and (3) existing and future commitments to environmental action. These themes show how youth co-researchers engaged in the three dimensions of critical consciousness as they confronted waste injustices in their communities. Youth co-researchers provided structural analyses of the waste management problem by contextualizing it in larger socio-economic disparities and provided ideas on how to respond to the problem.

4.1. Disparities and Disinvestment

Youth co-researchers highlighted that waste is a problem in their community, especially parks, that this problem does not exist in wealthier communities, and attributed disparities to structural conditions such as the lack of proper waste disposal facilities and systems. Youth co-researchers took several photos depicting small and large waste that littered Jones Box Park, and in their accompanying narratives, expressed that the presence of scattered waste made them feel embarrassed, demoralized, scared, and angry. "The [flooded fields] reek of garbage….It's embarrassing when friends and family visit," one pointed out. Another effect youth co-researchers highlighted was that the presence of trash encourages more littering, with one person stating: "Being a kids' playground, kids will think it's okay to litter, and it's demoralizing to make an effort to clean up, when others aren't even trying" (Figure 1).

In contrast, youth co-researchers expressed how cleanliness and nature's vibrancy bring them comfort, as it shows people care about the environment. In a photovoice narrative, a youth co-researcher showcased flowers in Jones Box Park, stating, "these blooming flowers…makes me feel comfort. Blooming is only possible in the right season and when there is care for the environment" (Figure 2).

Figure 1. Trash in front of the Jones Box Park playground.

Figure 2. Flowers in Jones Box Park.

Similarly, another youth co-researcher detailed how she felt more comfortable using a space when it was well-kept:

> I took this picture [Figure 3] because how bad this place has gotten. It used to be well-kept and beautiful. But more recently, it has been overtaken by trash….It makes me feel sad because this used to be a beautiful place to admire the sunset.

Figure 3. A once well-kept place to view the sunset.

Youth co-researchers also presented social-spatial analyses that identified waste as a problem of inequality, and they linked the waste issue to structural inequities: none of the issues of waste management, abandonment, and lack of safety seem to occur, at least visibly, in wealthier neighborhoods. Young people saw that "in those [wealthier] places, it is better developed, it is cleaner, in other communities…and this speaks to how most of the higher ups, people who are in control, shouldn't pick and choose where to prioritize." Another youth co-researcher explained that a local open space she uses was going to be turned into a park, but because the process has been taking longer, people have been throwing trash in the meantime (Figure 4). She added:

> Seeing big piles of trash everywhere [in the open space] makes me feel angry. Why do people dump their trash and unwanted furniture everywhere? The proper system for disposing big garbage items is clearly not working, otherwise we wouldn't see so much trash here in this space and all over everyone's sidewalks….This [dumping problem] doesn't seem to happen in neighborhoods that are not poor.

Figure 4. A potential park space unfortunately turning into a dumping site.

These disparities and injustices, youth co-researchers noted, reflect and reproduce the stigmas and stereotypes that people hold about their community.

> When I think about these big problems and [wonder] why are some communities, like, struggling, keeping up [with] their trash and why some are not, I think it's a…snowball [effect]. People look at them and they're like, "You're dirty." So, I internalize and I'm like, "Why bother?" Nobody cares anyway. They already see us like people who don't matter.

Youth co-researchers acknowledged that their neighbors are not dumping trash in undesignated waste management areas because they want to do so, but because proper disposal is an involved process, one that takes time, thought, and resources. They indicated that it is difficult to get rid of trash without proper waste disposal facilities. Youth co-researchers highlighted problems in waste management systems and identified specific infrastructural needs, including garbage and recycling bins in public places, bulk pickup services that come to neighborhoods regularly, and waste management teams that deploy when trash builds up in the neighborhood.

4.2. Underrepresentation and Self-Perception

Youth co-researchers emphasized how underrepresentation in planning processes affects their own sense of individual and collective identity and confidence to make change. They shared that many social and political systems in place are not designed to serve their needs or give them a voice in decision-making. They also acknowledged that obstacles to representation were associated with their various identities: as young people, as Latinas/os, and as residents of lower-income communities. Many youth co-researchers voiced disappointments such as "we put our voices out there, but they don't really hear us" and "even if we say it, it doesn't mean they're going to count it." They also expressed frustration with stereotypes that often exclude them from decision-making circles: "[As Mexicans] we're known as *locos* [crazy], immigrant people that don't really care about the [dumping] problem….They labeled us in a way that they force us to act."

Accordingly, some youth co-researchers emphasized feeling discouraged from taking action. For example, one person stated:

> We see [pollution and litter] and we understand it, but we don't feel compelled to do anything about it. Because it's like, "It's always going to be there, so why try to change it?" No one really gives us the opportunity to change it.

However, they also described how the photovoice project changed their own perceptions of their ability to make a difference in their communities. In a focus group discussion, one person discussed his evolution of perceptions about himself and his community:

> I was really stunned actually in this project. It gave me a new perspective on myself and…how I've seen my community….I realized I live in very much a bubble…and it was very eye opening to actually have a reason to go outside and observe things about my community that I never would have cared about, because I felt kind of powerless….I found that [the project was] very empowering.

Similarly, another youth co-researcher in that same group explained how identifying littering problems in Jones Box Park made her realize her actions are important:

> It also made me realize how important it is for us to make a change….When we went to the park and we see all these things going on….We don't actually realize until we actually focus on them, like trash on the floor and all of this beauty of nature that surround us every day, but we don't appreciate it as we need to.

These comments led to another person highlighting the importance of her voice:

> We [young people] can make a change here….Our voice does matter, and that just because we're teenagers and we're not adults…it doesn't mean that our voice doesn't matter. We can actually all come together and change things for the better for our future.

Other youth co-researchers expressed similar sentiments, sharing that they originally felt discouraged because they felt excluded in planning processes, but that through carefully analyzing the issues in their neighborhoods, they realized they could contribute to change in different ways.

4.3. Existing and Future Commitments to Environmental Action

In the focus group discussions, several youth co-researchers shared steps they took or planned to take to alleviate the waste problems in their communities. Youth co-researchers' environmental commitments played out in individual and structured ways. At the individual level, raising awareness was a common theme among their action plans. For the youth co-researchers, raising awareness involved encouraging friends and family to form trash-cleaning groups, protesting to raise concerns to policymakers, creating videos that showcase local environmental inequities, sharing petitions to spread the word, and organizing city-wide conferences that give young people a platform to voice their ideas. Some youth co-researchers highlighted their generation's use of social media for awareness raising and political education:

> I think social media has a big impact, especially on younger people…reminding people the things that are happening around us….I follow this one account that constantly brings up issues that are happening with justice or nature, anything…so I think having that reminder will make people constantly be like "Oh my God, I keep seeing this, I keep seeing that."

Youth co-researchers also saw themselves as future agents of change. In considering future careers in political science, real estate, civil engineering, film production, and other fields, they noted their ability to effect change in the built environment as professionals. For example, one stated, "I want to be a civil engineer….I could be a change where trash is not left around, during or after construction." Another commented:

> For the future I'd like to do video production….[The photovoice project is] giving me some ideas on how I can put this kind of project into my future filming and how [I] can also help this type of community make movies, so people can be aware of [environmental injustices these communities experience].

Several youth co-researchers also discussed how their participation in school and community-based initiatives addresses littering and trash dumping. For example, one individual mentioned being part of a school club that involves picking up trash on their campus:

> I'm in a school club called Green Team….We [focus on] animals and flowers, taking care of the flower garden…but people don't care about it. They just keep throwing their trash. And then, we have to get clean it up every time…and it's what I like doing. It's what I love.

Youth co-researchers actively served as stewards of their natural environments through structured programs (Figure 5). They saw their environmental commitments as something that benefited their community.

Although some opportunities for civic involvement in Pharr currently exist, youth co-researchers expressed wanting more such opportunities. At the structural level, they suggested changes in school programming, municipal decision-making processes, and community partnerships. For instance, one youth co-researcher suggested partnerships between schools and parks so students can meet their volunteer requirements while also cleaning up their local environment:

> Even now, we are [high school] seniors….You want community hours, let's go to the park and clean something, or let's just help the community in that way….We need 40 hours, each student themselves needs to graduate….I think that if the schools talk with the parks to somehow make it, like if you go to the park and you pick up trash, let's say you do an hour, that's an hour to the school time, so it doesn't have to just be with the school, it can be outside as well.

While acknowledging the role of the City and other institutions in waste inadequacies, many youth co-researchers also highlighted that municipal-community partnerships have the potential to inspire governmental investment in infrastructure. One of them asserted that the community has the power to broadly transform civic culture, re-engage policymakers by disproving stigmas around community environmental neglect, and motivate the City to expand waste disposal services by demonstrating expanded community stewardship:

Figure 5. A community garden that a youth co-researcher visits on Fridays.

> We should get the community involved. We can organize a neighborhood cleanup day, working with the city to make it happen…to make it easier for people to throw their trash responsibly. [The City] could [also] provide blue recycling cans. These steps can help us come together as a community…and show the city that we care about improving our neighborhood.

5. Discussion

The insights of young Latina/o people in this study on waste disparities and their effects are consistent with what critical consciousness literature refers to as critical reflection (Watts et al., 2011). First, they articulated the various structural problems affecting waste conditions in their communities, such as inadequate systems for disposing of large garbage items, providing recycling bins in public spaces, picking up waste bins in neighborhoods regularly, and deploying waste management teams to address trash bulk pickup. These articulations are examples of how waste reflects social relations (Dillon, 2014; Moore, 2012; Weber et al., 2019). The history of disinvestment in Las Milpas extends to the issue of waste. Environmental justice is often viewed as a siting issue—for example, several studies have pointed out how waste management facilities themselves have negatively impacted communities–but the issue plays out in a wide range of ways (Harwood, 2003). Young people in Pharr pointed out the lack of basic waste management facilities, specifically those that help dispose of small and large items. More broadly, young people highlighted waste management as an ongoing basic need in a region that has long struggled with economic marginalization. State and federal agencies can play a critical role in enhancing waste management systems by facilitating financing or other resources. The early stages of new waste facilities planning are an opportunity to develop infrastructure that is equitably funded and designed (Weber et al., 2019).

Additionally, young people conceptualized environmental justice in Pharr as an issue of waste through their critical reflections on how scattered trash, small and large, affects their outdoor experiences. In their photovoice narratives, they associated maintenance and nature's beauty with comfort, and trash with feelings of frustration and embarrassment. These feelings affected young people's perceptions and use of outdoor spaces and are amplified when they internalize negative comments about their communities due to their physical conditions. Negative feelings resulting from the presence of trash can lead to young people using outdoor spaces less, as previous studies have shown that physical park attractiveness influences park use (Douglas et al., 2018; Knapp et al., 2018; McCormack et al., 2010). However, as young people emphasized, scattered waste does not appear to be a significant issue in wealthier communities. These disparities between communities noted by young people underscore that scattered waste is also an environmental justice issue, adding new perspectives to this literature which majorly discusses waste in the form of facilities and their pollution.

The evolution of some of the young people's beliefs in their abilities to effect change parallels political efficacy outcomes in other YPAR studies using photovoice (Bellino & Adams, 2017; Brickle & Evans-Agnew, 2017; Evans-Agnew et al., 2022). In this study, some young people expressed feeling discouraged to take action due to them noting their underrepresentation in planning and decision-making processes and the lack of institutional opportunities to be involved in effecting change, internalizing the belief that their voices do not matter because they are not adults. However, through the photovoice process, these co-researchers analyzed the social and political forces influencing waste issues and identified various ways to make their voices heard and help at individual and structural levels. After noting the significance of waste concerns, the effects of

scattered trash on their outdoor experiences, and the different ways they could help address the issue, they emphasized feeling more confident in their abilities to effect change. Young people's reflections on this topic highlight YPAR and photovoice's role in the development of political efficacy.

The photovoice activity and focus group discussions demonstrated the different angles from which young people in Pharr engage in critical action via individual ways and through suggesting structural action steps to address concerns, reflecting similar findings in other photovoice projects involving young people and the topic of waste (Cubilla-Batista et al., 2016; Kovacic et al., 2014; Sprague et al., 2023). Even though young people in this study pointed out that they are underrepresented in planning and decision-making processes, they still saw themselves as agents of change as they can individually help with solving waste problems via raising awareness, future career aspirations, and school and community-based initiatives. However, they recognized that more is needed and called for institutional changes that will help address waste concerns and give them opportunities to be more civically involved in their communities. Suggested institutional changes involve more municipal-community partnerships, young people's involvement in municipal decision-making processes, and increasing civic engagement opportunities in school programming. Young people's ideas to address local waste problems using their lived experiences and critical reflections on their surroundings reconfirm past studies' characterization of young people as knowledgeable community stakeholders who should be incorporated into planning and decision-making processes (Frank, 2006; Knowles-Yánez, 2005; Osborne et al., 2016; Passon et al., 2008).

Young people in this study also explored the contradictions of individual action. Despite evidence that recycling is far less effective than advertised at mitigating plastic waste and is expensive to implement (Allen et al., 2024), recycling still looms large in the environmental commitments of Pharr's young people. Similarly, even while highlighting how scattered waste in Pharr results from the systemic issue of insufficient waste disposal facilities, young people still feel compelled to address trash pickup through individual and collective community action while also advocating for systemic change. This contradiction highlights the complex social and political dynamics facing young people in Pharr who seek to effect change. For them, taking individual action to clean up waste is a political act in that it counters misconceptions that their community does not care about scattered waste; it demonstrates to decision-makers that the community is, in fact, invested in its parks and is worthy of government investment. Young people also feel compelled to clean up waste out of necessity in an environment where systems are not improving. Despite making a compelling case that inadequate systems are responsible for the proliferation of waste in Pharr, young people are motivated to work towards improving their communities.

6. Conclusion

Our participatory research project with young people in Pharr, Texas, adds to environmental photovoice literature by further expanding on how environmental injustices involving scattered waste affect outdoor experiences. Through a walkalong, a photovoice project, and focus groups, young people identified waste as a resounding priority. Their reflections highlighted their motivations behind and actions toward addressing this problem. These young people's insights make two empirical contributions to scholarly and applied discussions on young people's outdoor experiences. First, young people's prioritization of waste highlights its central role in shaping their park experiences. Second, young people are committed to improving waste conditions through individual and group actions and influencing systemic changes. Their environmental

commitments call for investment in waste management and set the stage for more generative ways of experiencing the natural environment. In simultaneously committing to individual and group waste mitigation actions and actions in pursuit of systems change and institutional investment, Pharr young Latinas/os evince a complex relationship with social and political power structures and with their natural and built environments.

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Conflict of Interests

The authors declare no conflict of interests.

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