

# The Prospective Role of New Community Parks in Enhancing Human Health in Marginalized Communities: A Case of Kellogg Park in Ventura, California, USA

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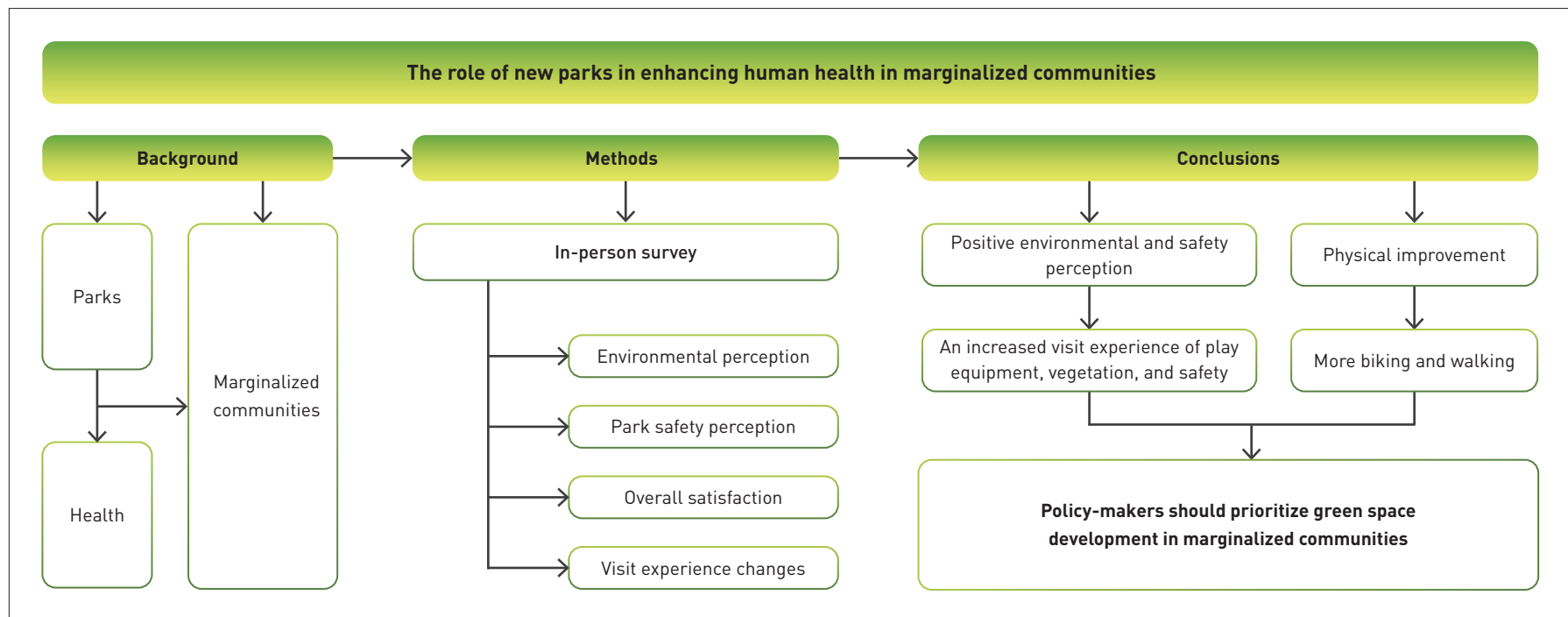
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## GRAPHICAL ABSTRACT



## ABSTRACT

Urban green spaces contribute to improving people’s physical and mental health by reducing levels of stress and anxiety. Marginalized communities in the USA experience poor health outcome in part because of health disparities related to social and structural determinants of health. The purpose of this study is to assess the prospective role of Kellogg Park, a newly built community park in a marginalized community in California, in enhancing residents’

physical and mental health. The researchers collected the data by conducting an in-person survey, which covered questions related to environmental and safety perceptions, overall satisfaction, changes in physical activity changes and mental health with respondents’ pre- and post-occupancy experiences. For analyzing data, bivariate analyses using a *t*-test and a correlation analysis were conducted to examine if there was a relationship between the overall satisfaction

and visiting experience. The results indicated an increased positive environmental perception. Besides, respondents reported positively to questions of safety and their overall satisfaction. This research yielded positive results, indicating an improvement in the respondents' physical activity changes and mental health after the construction of the park. The results will advocate for and assist planners, designers, and policy-makers in prioritizing green spaces in marginalized communities.

## KEYWORDS

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Green Spaces; Physical Activity; Mental Health; Environmental Perception; Satisfaction; Marginalized Community

## HIGHLIGHTS

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- Reveals that increased physical and mental health was closely related to the accessibility of urban green spaces
- Finds that a close relationship existed between the overall satisfaction with the visit experience and that of the exercise equipment, safety of the park, and quality of the park
- Reveals that non-homeowners with children felt safer than homeowners with children about children playing at the park after its completion

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## 1 Introduction

Community parks are part of urban ecosystem services which help improve urban sustainability and human well-being. The relationship between people's perceptions of their overall physical health and the availability of green areas has been the subject of recent research<sup>[1]~[13]</sup>. Moreover, scholars stated that green zones contribute to cleaner air, lessen sound interference, and enhanced

emotional and communal health<sup>[14][15]</sup>. Living within accessible green spaces also decreases the risk of mortality and mental fatigue stress<sup>[16][17]</sup>.

However, numerous issues related to green spaces accessibility have affected the marginalized communities. The residents in low socioeconomic status (SES) neighborhoods often have more quality and safety concerns, which limit their willingness to access park facilities<sup>[18]</sup>. Additionally, it was concluded that individuals with lower SES and those from ethnic minority backgrounds have access to smaller park areas than more privileged people<sup>[19]</sup>. Studies have also shown that even when parks are available in low-SES neighborhoods, there may be concerns regarding their quality and a scarcity of essential park amenities<sup>[20]~[22]</sup>. This struggle is ongoing and was exacerbated during the COVID-19 pandemic<sup>[23]</sup>.

In addition, the quality of parks in low-SES communities is related to safety as well. For example, trail improvements and good lighting can make the spaces in the parks safer<sup>[24]</sup>. In communities with less secure parks and inadequate crime prevention, park usage of young people was particularly restricted<sup>[21]</sup>. Researchers have evaluated impacts of various planning considerations such as park placement, vegetation pattern, and management of understory on residents' feeling of safety<sup>[25]</sup>. Strategies such as proper lighting, well-designed passageways, and fewer concealed spaces were suggested to keep kids safe in parks<sup>[26]</sup>. Studies have also extensively explored the link between urban green space accessibility and crime reduction, indicating that accessibility to public parks is particularly effective in decreasing crime among young people<sup>[27]~[31]</sup>.

Also, green space has been associated with the well-known Attention Restoration Theory<sup>[32]</sup>, which suggests that after engaging in daily tasks that demand concentrated attention, green space helps refresh the brain's psychophysiological and cognitive performance. All these imply that green spaces can aid urban marginalized communities in improving their standard of living.

There were also studies emphasizing the need for equitable park development and management to ensure they serve all community members effectively. For example, evidence of park feature disparities was uncovered in areas with different racial and income demographics<sup>[33]</sup>. In addition, the relationship between neighborhood characteristics and park usage was studied among children in low-income, diverse communities, noting differences among varied groups<sup>[34]</sup>. Other researchers focused on how park elements impact visit frequency in low-SES urban communities<sup>[35][36]</sup>. Also, a qualitative approach was applied to understand how safety concerns affect park use and physical activity in urban areas<sup>[24]</sup>, while other research highlighted the importance of improving

the social environment of parks to increase their usage by low-SES neighborhoods<sup>[37]</sup>. Other research examined the outcomes of engaging residents with an urban park nonprofit located in a low-income, ethnically diverse community, underscoring the significance of public participation in park planning to enhancing ownership and avoiding feeling excluded<sup>[38]</sup>. These studies investigated the disparities in park characteristics, usage, and engagement across low-SES communities, focusing on factors such as race, income, safety, and social environment. However, there is a paucity of research examining the potential of newly established parks in these underserved areas. Understanding the role of these new parks can inform policy decisions and community development efforts aimed at promoting equity, well-being, and sustainability of urban environments. Therefore, the contribution of this study lies in exploring how a newly developed community park can influence the physical and mental health, safety, and overall quality of life of individuals residing in marginalized communities.

## 2 Research Area and Methods

### 2.1 Research Area

Kellogg Park is located in the heart of the west side of Ventura (officially named San Buenaventura), on the coast of Southern California, USA. Ventura has a population of 109,925 (data from the 2022 census), and most of the Hispanic population resides on the west side of the city, currently known as the Avenue. According to the United States Census Bureau, the area is of mixed residential and commercial use; the median household income in 2022 of that area was 100,073 US dollars annually, lower than the rest of the city.

The study area exhibits characteristics that can be associated with low-SES when analyzed within the broader economic context of the area and California's high cost of living. According to statistics from the platform of City-Data, the mean household income for the lowest quintile in Ventura County is significantly lower than the county's median household income, indicating a substantial income disparity within the region. This is further evidenced by the County's Gini coefficient (0.4694), suggesting moderate income inequality and highlighting the existence of lower-income segments among the population. Besides, according to California's official definition, a portion of Ventura's population, especially those within the lowest income quintile, would indeed fall in the low-income categories.

In Ventura, 18 out of the 20 parks are situated in low-SES neighborhoods. But due to restrictions of funding and time, it

was challenging to expand the study to multiple sites without compromising the depth and quality of data collected at each location. Meanwhile, Kellogg Park is newly built and has not been extensively researched. Thus, it was selected as the study object to demonstrate how a newly developed urban park can influence the health of community members in marginalized areas.

Began in 2013, there have been plans to develop Kellogg Park as a neighborhood park for the Westside of Ventura community, as a dream for a vacant lot along Ventura Avenue. Later on, the city began an active partnership with community members to develop a comprehensive conceptual plan that met the varied demands for the park. In 2015, the responsibility for supervising the park's evolution from conceptual design to the completion of construction documents, alongside the facilitation of community engagement sessions for the dissemination of plans, was assigned to Pacific Coast Land Design, Inc. Kellogg Park was opened in April of 2018, covering an area of 2.4 acres (about 1 hm<sup>2</sup>). It offers a variety of facilities, from a communal area for play to a multi-purpose amphitheater, and exercise equipment (Figs. 1 ~ 3). In the park, a natural stormwater swale blends infrastructure as an aesthetic and use amenity, improving the overall environment of the community.

### 2.2 Research Methods

Data collection for this study was carried out using a structured survey instrument. The survey involved self-reported questions designed to scale respondents' perceptions of the environment and safety, their overall satisfaction with the park, and the changes in physical activity and mental health. It specifically asked respondents to reflect on their experiences after the park was built up. In the study, researchers ensured that respondents resided in the same neighborhood both before and after the park improvements, confirming that they had been using the park throughout this period. This pre- and post-occupancy approach within individual park visits provided insights into the immediate impacts on visitors. The research utilized the Likert Scale for the responses to the survey questions. The scale ranged from 1 to 5, signifying strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree, respectively. Additionally, an option of "0" was included to accommodate respondents who preferred not to answer. There were two versions of the questionnaire in English and Spanish languages<sup>①</sup>.

① The research obtained Michigan State University's IRB approval (STUDY00007611) to circulate the survey.



1. Sky view of Kellogg Park.
2. Entrance of the park.
3. Playground area in the park.

Data was collected on both weekdays and weekends (from June 1 to 5, July 8 to 12, and August 17 to 24, 2022). The survey was administered from 5:00 P.M. to 8:00 P.M. on weekdays and from 3:00 P.M. to 7:00 P.M. on the weekends. Respondents were chosen at random and given the option not to participate in the survey. Finally, 34 respondents completed the survey.

This research mainly conducted descriptive statistics to understand respondents' overall satisfaction with the park through the pre- and post-occupancy evaluation, and explore their physical and mental health before and after the park was built up through a comparative analysis. It also performed bivariate analyses via a *t*-test to identify differences within the same group in terms of their overall satisfaction, visit experience, and physical activity changes.

### 3 Results and Discussion

#### 3.1 Demographic Characteristics of Respondents

The demographic characteristics of respondents (Table 1) show that 41.18% of respondents were females while 35.29% were males. Among the respondents, those who had no children showed the highest percentage (29.41%). Most of the respondents who answered the marital status question were married (32.36%), while there were close percentages in the family income categories.

#### 3.2 Environmental and Park Safety Perceptions

For the environmental and safety perception questions, Table 2

shows the results of the means and standard deviations of each variable. All variables had high mean scores (greater than 3.00 out of a 5-point Likert Scale), demonstrating positive perceptions. Questions regarding the vegetation and park location showed

**Table 1: Demographic characteristics of respondents**

| Item                                   | Number of respondents (percentage) |
|--|------------------------------------|
| <b>Gender</b>                          |                                    |
| Male                                   | 12 (35.29%)                        |
| Female                                 | 14 (41.18%)                        |
| Other                                  | 3 (8.82%)                          |
| Rather not answer                      | 5 (14.71%)                         |
| <b>Do you currently have children?</b> |                                    |
| No child                               | 10 (29.41%)                        |
| 1 child                                | 4 (11.76%)                         |
| 2 children                             | 6 (17.65%)                         |
| 3 children                             | 6 (17.65%)                         |
| 4 children or more                     | 1 (2.94%)                          |
| Rather not answer                      | 7 (20.59%)                         |

(Continued)

**Table 1: Demographic characteristics of respondents** (Continued)

| Item   | Number of respondents (percentage) |
|--|------------------------------------|
| <b>What is your marital status?</b>                      |                                    |
| Single, never married                                    | 6 (17.65%)                         |
| Divorced, widowed, or separated                          | 4 (11.76%)                         |
| Married  | 11 (32.36%)                        |
| Living with a partner                                    | 1 (2.94%)                          |
| Rather not answer  | 12 (35.29%)                        |
| <b>What is your family income per year (US dollars)?</b> |                                    |
| 0 ~ 30,000   | 4 (11.76%)                         |
| 30,000 ~ 50,000  | 4 (11.76%)                         |
| 50,000 ~ 75,000  | 5 (14.71%)                         |
| 75,000 ~ 100,000   | 4 (11.76%)                         |
| 100,000 ~ 120,000  | 4 (11.76%)                         |
| Rather not answer  | 13 (38.25%)                        |

higher mean values (4.15 and 4.00, respectively) than other environmental perceptions. Respondents answered positively to questions of accessibility by walking and biking (3.50 and 3.82, respectively). The mean scores of other variables, such as use of play equipment by children and how easy it is to get to the park, were relatively lower (3.29 and 3.06, respectively). Additionally, respondents answered positively to questions related to park safety perception, as the question of feeling safe at night and whether there was ample light at night, had mean scores of 3.29 and 3.74.

### 3.3 Overall Satisfaction

Table 3 shows the results of respondents' overall satisfaction with Kellogg Park. Mean scores for satisfaction with the safety of the park, exercise equipment, personal health, and visit experience after the park was built up were higher than the other variables (4.24, 4.18, 4.06, and 4.00, respectively), representing higher satisfaction. The item related to the overall satisfaction with visit experience was directly measured by asking respondents to consider all elements of their experience at the newly built park and to provide an overarching satisfaction rating. The mean scores for satisfaction with the aesthetics of the park and the quality of the

**Table 2: Environmental and park safety perceptions**

| Item   | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree | Mean | SD   |
|--|-------------------|----------|----------------------------|-------|----------------|------|------|
| <b>Environmental perception</b>                            |                   |          |                            |       |                |      |      |
| I enjoy the vegetation in Kellogg Park.                    | 3%                | 6%       | 12%                        | 32%   | 47%            | 4.15 | 1.04 |
| I like the location of Kellogg Park.                       | 3%                | 6%       | 18%                        | 35%   | 38%            | 4.00 | 1.03 |
| It is easy to get to Kellogg Park from my residence.       | 12%               | 21%      | 26%                        | 32%   | 9%             | 3.06 | 1.17 |
| I can easily access Kellogg Park by walking.               | 15%               | 15%      | 9%                         | 29%   | 32%            | 3.50 | 1.45 |
| I can easily access Kellogg Park by biking.                | 9%                | 12%      | 6%                         | 35%   | 38%            | 3.82 | 1.31 |
| I visit Kellogg Park often.                                | 23%               | 6%       | 24%                        | 26%   | 21%            | 3.15 | 1.43 |
| My child often uses the playground at Kellogg Park.        | 6%                | 6%       | 18%                        | 47%   | 23%            | 3.76 | 1.06 |
| My child often uses the play equipment at Kellogg Park.    | 0                 | 32%      | 21%                        | 32%   | 15%            | 3.29 | 1.09 |
| There is enough seating at Kellogg Park.                   | 0                 | 32%      | 21%                        | 32%   | 15%            | 3.29 | 1.09 |
| <b>Park safety perception</b>                              |                   |          |                            |       |                |      |      |
| I feel that Kellogg Park is safe at night.                 | 9%                | 18%      | 26%                        | 29%   | 18%            | 3.29 | 1.21 |
| I feel that there is ample light at night in Kellogg Park. | 6%                | 12%      | 18%                        | 32%   | 32%            | 3.74 | 1.20 |

**Table 3: Overall satisfaction with Kellogg Park**

| Item  | Strongly disagree | Disagree | Neither agree nor disagree | Agree | Strongly agree | Mean | SD   |
|---|-------------------|----------|----------------------------|-------|----------------|------|------|
| I am satisfied with the maintenance of Kellogg Park.                | 18%               | 29%      | 24%                        | 6%    | 24%            | 2.88 | 1.42 |
| I am satisfied with the aesthetics of Kellogg Park.                 | 3%                | 6%       | 18%                        | 44%   | 29%            | 3.91 | 0.98 |
| I am satisfied with the exercise equipment at Kellogg Park.         | 0                 | 6%       | 18%                        | 29%   | 47%            | 4.18 | 0.95 |
| I am satisfied with how safe Kellogg Park is when I visit.          | 3%                | 3%       | 9%                         | 38%   | 47%            | 4.24 | 0.91 |
| I am satisfied with my health now that Kellogg Park has been built. | 0                 | 9%       | 12%                        | 44%   | 35%            | 4.06 | 0.91 |
| Overall, I am satisfied with the quality of Kellogg Park.           | 3%                | 12%      | 12%                        | 41%   | 32%            | 3.88 | 1.08 |
| Overall, I am satisfied with my visit experience at Kellogg Park.   | 9%                | 6%       | 6%                         | 35%   | 44%            | 4.00 | 1.24 |

park were relatively high (3.91 and 3.88, respectively), contributing to the positive reflections on their visit. In contrast, satisfaction with the maintenance of the park was the lowest (2.88).

### 3.4 Visit Experience After the Park Construction

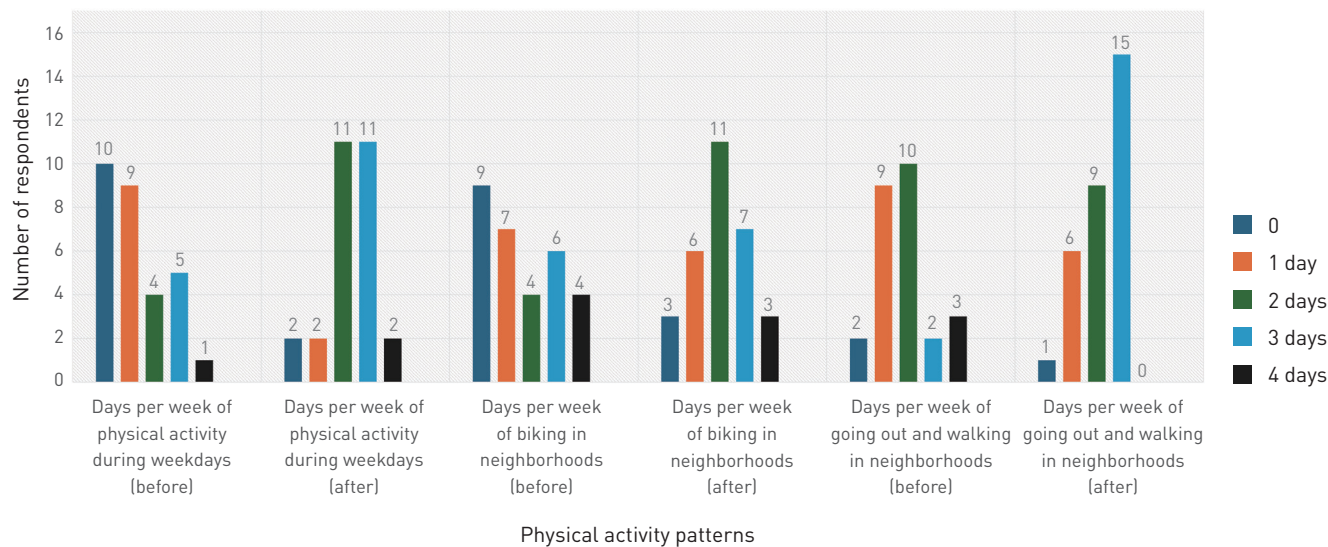
To understand the impact of the park on physical and mental health, this study evaluated respondents' experiences after Kellogg Park was built up. In the survey, respondents were asked to quantify

changes in their behaviors, to assess emotional and mental health impact, and to evaluate safety perceptions. The results shown in Table 4 exhibit no significant change in the behavior of walking and in positive emotion before and after the park construction. These results suggest that the intervention had a positive impact on physical activity and safety perceptions, with mixed outcome for emotional well-being, highlighting areas for further improvement.

In addition, the respondents were asked about the number

**Table 4: Changes in perception and behavior before and after the park was developed**

|        | Item   | Never | Somewhat often | Often  | Very Often | Always | Rather not answer |
|--------|--|-------|----------------|--------|------------|--------|-------------------|
| Before | I walk around the neighborhood.                      | 5.88% | 11.76%         | 35.29% | 14.71%     | 20.59% | 11.76%            |
|        | I do physical activity during weekdays.              | 8.82% | 35.29%         | 23.53% | 17.65%     | 14.71% | 0                 |
|        | I have positive emotions.                            | 2.94% | 35.29%         | 20.59% | 17.65%     | 14.71% | 8.82%             |
|        | I feel safe to let my kids walk in the neighborhood. | 2.94% | 29.41%         | 5.88%  | 29.41%     | 29.41% | 2.94%             |
| After  | I walk around the neighborhood.                      | 8.82% | 23.53%         | 23.53% | 17.65%     | 17.65% | 8.82%             |
|        | I do physical activity during weekdays.              | 2.94% | 29.41%         | 20.59% | 26.47%     | 17.65% | 2.94%             |
|        | I have positive emotions.                            | 5.88% | 23.53%         | 20.59% | 11.76%     | 23.53% | 14.71%            |
|        | I feel safe to let my kids walk in the neighborhood. | 0     | 14.71%         | 11.76% | 41.18%     | 29.41% | 2.94%             |



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4. Number of days participated in physical activities before and after park construction.

of days of having physical activity before and after the park construction. Figure 4 shows the detailed results that, generally, respondents spent more time engaging in physical activity. For example, a few respondents had 3 days of physical activity before the park was built up, while afterwards, that number increased significantly. Additionally, the number of respondents who did not go biking decreased from 9 to 3, indicating that individuals preferred biking after the park construction. Similar findings were noticed in terms of walking.

Moreover, a correlation test was conducted to analyze whether there was a relationship between the overall satisfaction with visit experience and the overall satisfaction with exercise equipment, safety of the park, and quality of the park. Pearson correlation results indicate that there was a significant relationship between all these variables and visit experience (Table 5). Specifically, there

was a significant correlation between the visit experience and exercise equipment ( $R = 0.435, p = 0.010$ ). Similarly, the visiting experience was significantly correlated with the safety of the park ( $R = 0.467, p = 0.005$ ). Lastly, there was no significant correlation between the quality of the park and the visit experience ( $R = 0.331, p = 0.056$ ), which is above the confidence level of 0.05.

Regarding the demographic characteristics of the respondents, one major finding was that families with children (who were not homeowners) felt safer about their children playing at the park after its completion; whereas homeowners with children did not approve. Moreover, respondents with no child were more likely to engage in bike riding activities. Higher income respondents who have children would have higher levels of satisfaction when they discovered that the park had a playground/play equipment.

The introduction of this new park has been associated with a

**Table 5: Correlation analysis results (symmetric measures) (n = 34)**

| Pearson's R  | Value | Asymptotic standard error | Approximate $T^a$ | Approximate significance ( $p$ -value) |
|--|-------|---------------------------|-------------------|--|
| Visit experience versus exercise equipment of the park | 0.435 | 0.151                     | 2.735             | 0.010 <sup>b</sup>                     |
| Visit experience versus safety of the park             | 0.467 | 0.155                     | 2.987             | 0.005 <sup>b</sup>                     |
| Visit experience versus quality of the park            | 0.331 | 0.205                     | 1.984             | 0.056 <sup>b</sup>                     |

**NOTES**

a. Using the asymptotic standard error assuming the null hypothesis.

b. Based on normal approximation.

notable increase in the frequency of biking among the community members. The paired *t*-test analysis, detailed in Table 6, assessed the differences in the frequency of biking before and after the park's construction and revealed a substantial positive change. The mean increase of around 1.7 days (*SD* = 1.05339) for biking is statistically significant ( $t = 9.606, p = 0.000$ ), suggesting a robust impact of the park's availability on biking activity. Furthermore, the results indicated a significant increase in the number of walking days after the park opened ( $t = 4.497, p = 0.000$ ). This implies that the park has a potential impact on an increase in the number of days people engaged in both biking and walking.

### 3.5 Discussion

The correlation between health and green space accessibility has been extensively studied using various literature sources<sup>[39]–[41]</sup>. However, this study examined how different health outcome changed in marginalized communities after the construction of a new park, aiming at shedding light on the dynamic changes and immediate benefits that can arise from such developments. The results of Pearson correlation indicated that the quality of the park and the feeling of safety were associated with the overall visiting experience after the construction of the park.

The primary finding showed that improved health was closely related to the availability of urban green spaces. It also indicated a marked increase in physical activities, like biking and walking, after the construction of this park, aligning with previous studies evaluating park elements' influence on visit frequency. Besides the physical health, many respondents reported feeling better mentally, echoing the Attention Restoration Theory<sup>[32]</sup> and suggesting that new parks were vital for mental rejuvenation, especially in underserved areas. While safety is a pivotal factor in assessing mental health in urban settings, there was variation in feelings of park safety. Results further indicated the discrepancy between non-homeowners and homeowners with children on park safety, which might be attributed to the fact that homeowners typically have their own yards, reducing the need to send their children to the

park. Moreover, mental well-being tends to be more positive in safe environments. This verified that fear of crime has a negative effect on locals' mental health<sup>[42]</sup> and even deters people from engaging in outdoor activities like walking<sup>[43]</sup>.

These results underscore the need for policy-makers and urban planners to prioritize the development of new green spaces in marginalized areas. Not only do these spaces provide immediate health benefits, but they also contribute to longer-term community resilience and sustainability. The significance of this research lies in its ability to highlight the transformative potential of new parks, offering a roadmap for inclusive, equitable, and health-promoting urban development in the future. By bridging the gap in the literature on the impact of new green spaces in marginalized communities, this study advocates for a nuanced approach to urban planning that recognizes the unique needs and challenges of such areas.

## 4 Conclusions

This research presented comparative findings on the impacts of a new urban park in a marginalized community on residents' perceptions, satisfaction, and physical and mental health. Findings indicated that marginalized communities lacking green spaces would significantly benefit from the development of spaces such as community parks. The correlation analysis results also showed a close relationship between the overall satisfaction with the visit experience and that of the exercise equipment, safety of the park, and quality of the park. Government and community leaders can draw support from this study to advocate for the construction of new green infrastructure in similar communities. City planners and designers can use these findings to identify the amenities the public most desires.

However, there were limitations of this study. The main one was that the study was conducted only on one site in California. Including multiple sites would have provided stronger research results. Also, data collection was limited to a period in summer,

Table 6: Results of *t*-test

|         | Mean    | <i>SD</i> | Stand error mean | <i>t</i> | <i>df</i> | Significance (2-tailed) |
|---------|---------|-----------|------------------|----------|-----------|-------------------------|
| Biking  | 1.73529 | 1.05339   | 0.18065          | 9.606    | 33        | 0.000                   |
| Walking | 1.38235 | 1.79249   | 0.30741          | 4.497    | 33        | 0.000                   |

offering only a snapshot of the communities' park usage. Collecting data year-round would capture variations in park usage across different seasons. Furthermore, a larger sample size would have strengthened the argument that new parks in marginalized communities have positive impacts on residents' mental and physical health. The assessment of mental health in this study relied on respondents' self-reported measures of emotional experience, which may not fully reveal the multifaceted nature of psychological well-being. The absence of multi-dimensional psychological indicators also limits the study's insights into the park's impact on mental health. Future research could benefit from incorporating a broader range of mental health measures to provide a more comprehensive assessment.

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**Competing interests** | The authors declare that they have no competing interests.

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# 新建社区公园对改善边缘化社区居民健康的潜在作用： 以美国加利福尼亚州文图拉市凯洛格公园为例

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## 摘要

城市绿地能够有效降低人们的压力和焦虑水平，进而改善其身心健康。受社会和结构性因素影响，美国边缘化社区的居民往往健康状况较差。本研究旨在评估加利福尼亚州边缘化社区中一处新建公园——凯洛格公园在增强居民身心健康方面的作用。研究通过线下问卷的形式收集数据，问卷内容涵盖环境和安全感知、整体满意度，以及公园开放前后受访者的体育活动模式和心理健康变化等。研究采用t检验和相关性分析进行双变量分析，以检验受访者整体满意度与游览体验之间是否存在关联。结果表明，受访者的环境感知程度有显著提升。此外，受访者对安全性和整体满意度相关问题的回答也呈现积极态度。研究结果表明，在公园建成后，受访者的体育活动模式和心理健康均有所改善。研究可为城市规划者、设计师及相关政策制定者在边缘化社区中推进绿地建设提供依据。

## 关键词

绿地；体育活动；心理健康；环境感知；满意度；边缘化社区

## 文章亮点

- 居民身体和心理健康的提高与城市绿地的可达性密切相关
- 居民游览公园时的整体满意度与健身设施、安全性和公园质量密切相关
- 公园建成后，有孩子的非房主比有孩子的房主更放心孩子在公园中玩耍

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