

HOW MUNICIPAL PARKS BENEFIT LOCAL COMMUNITIES: A LITERATURE REVIEW

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ABSTRACT

This integrative review aims to see the direct benefits that municipal parks offer. The concern is that municipal parks are not as utilized as they could be in cities and towns. One reason for the underutilization may be the need for more knowledge on how municipal parks can benefit individuals. To find the benefits of municipal parks, three databases, Academic OneFile, Gale OneFile Psychology, and Google Scholar, were used to find relevant research. The search terms used included "Parks and Recreation," "parks mental health," "parks physical health," "parks promote an active lifestyle," "municipal parks," and "municipal parks benefits." The research showed that using municipal parks has multiple benefits, mainly mental and physical health. As the research indicates how getting outside is beneficial to health, individual towns and cities should create more parks and outdoor spaces for the community.

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This paper is dedicated to my parents, who always believed in me and supported me. They have always encouraged and believed in me when I did not believe in myself.

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CHAPTER 1: INTRODUCTION

Mental health crises are rising today, and physical health is declining (WHO). Finding ways to help individuals overcome struggles with mental health is a new challenge. Medication and therapy have helped meet some of the growing mental health needs but getting information about other resources is still challenging. Since mental health crises are increasing alarmingly, physical health concerns are often secondary. For example, in 2019, twenty percent of adults in the United States experienced some mental illness. That is around 50 million people, according to the World Health Organization. In addition to or because of the symptoms of mental illness, rates of physical activity are declining as individuals are now partaking in more sedentary activities, the National Library of Medicine found (2005). Finding new ways to help both these health concerns is something that society needs to consider.

Municipal parks could be the answer. They are in existence in every major city and town. Individuals can go to parks to help improve their mental and physical health needs. However, knowledge about the existence of municipal parks and their use is lacking, as is research on their many uses and benefits (Cohen & Nagel, 2016, para 26). Municipal parks are, by definition, "an area that is a zone or otherwise designated by municipal code such as a public park for the purpose of recreational activity" (Lawinsider, 2023). Municipal parks include playgrounds, fields, beaches, or pools for public recreational activity. Use of municipal parks by town residents is free except when organizations use the space for programs requiring a fee. These municipal park spaces are paid for by tax dollars and state and federal funding. Many individuals need to be made aware of the locations of municipal parks, the uses for the different spaces, and how the use of the parks is usually free.

This research will focus on how municipal parks benefit individuals in local communities. For example, going to a park for an hour a few times a week can have many physical and mental health benefits. There may be assumptions that parks are just for children, but that is inaccurate. Adults can benefit from walking trails, fields for games with others, open spaces for yoga, or generally connecting with others.

Background and Need

City parks have been around since the early 1900s. In the early 1900s, there was a lot of economic conflict and social disorder in the United States. These events caused a mass movement of people from rural communities to urban environments. However, the new urban living spaces could have been better living conditions. Individuals lived in crowded spaces with poor sanitation and little space for recreation. This lack of space for children to play caused social reform. The people of New York City wanted a place for their children to play, and that was when the public parks and recreation movement began. Emerging from this social reform movement in New York City in the late 1850s to early 1900s was "the first large-scale landscape architecture city park" (Edginton, 2017, p. 21). Those were the first city parks.

Municipal parks have been a newer concept in the United States. It was not until 1954 that "municipal parks were used for multipurpose utilitarian purposes" (Edginton, 2017, p.22). Before this time, there were only open spaces for designated purposes. For example, in 1634, the Boston Common was used as a makeshift place for soldiers to stay instead of barracks, and the same area was also used for the grazing of animals. Since then, municipal parks have evolved a lot more in local communities. The first playground built in the United States was in 1887 at the Golden State Park in San Francisco. However, it was not until 1903 that a

playground was fully government funded. Today's municipal parks include playgrounds, fields, pools, lakes, and trails that are used for recreational purposes only (Hart, 2006, para 3).

Humans have always had mental and physical health issues. However, ideas on how to treat illnesses and symptoms and support individuals are constantly evolving. In the 1900s, mental hospitals were a popular treatment choice for physicians and housed their patients. Often these patients did not even have a diagnosis (Lewis, 2017, para 12). As time progressed, mental hospitals were no longer seen as appropriate treatment, and medication was the norm for treatment. There have been similar evolutionary views of physical health. The first humans, for example, were physically fit due to needing to hunt and plant their food. As technology advanced in society, it became easier to access food (Lewis, 2017, para 60). Food additives were added to preserve the abundance of food and make the available food better tasting. The ease of obtaining food meant that individuals did not have to find food sources. With the boom in technology, jobs and daily life required less labor, and as a result, humans became more sedentary and had poorer diets (Handwerk, 2021, para 40). Historically, physical health has been treated with medication and surgery. Current mental and physical health trends include holistic treatments or treating body and mind. Holistic treatment such as yoga is often coupled with being in nature to promote healing and recovery and improve overall well-being.

Purpose of the Study

This integrative review of the literature will examine the benefits of how municipal parks can help mental and physical health. This research is necessary as many individuals need to know how municipal parks can benefit health or where the closest municipal park is. Additionally, municipal parks are underutilized, as shown in a study from 2016 that "In a multi-

part survey of 174 neighborhood parks across 25 major U.S. cities, researchers observed that children represented about 38 percent of weekly park use, despite making up just 18 percent of the general population" (Cohen & Nagel, 2016, para 26). With additional data on the benefits of parks, the towns could encourage individuals to use them more.

This research was completed through an analysis of existing studies in the field. With the culmination of this information, the research is expected to show how municipal parks can improve the health of individuals in the community.

Research Question

How do municipal parks benefit local communities?

Significance of the Field

With more information about the types of municipal parks, the many uses of park spaces and the organizations that use them, as well as the benefits, the use of parks can and should increase. As parks become more utilized, towns and cities may open more spaces. Municipal parks are essential in improving the value of houses and communities. They also have a role in protecting the natural environment of the area. More natural space means less air and water pollution from buildings, factories, and vehicles. Municipal parks also aid in children's learning. Parks with or without playground equipment allow children to use hands-on learning that aids in their development. Municipal parks can also lead the way to community engagement and supportive communities. Individuals can connect and interact with each other at local parks, building a sense of community and increasing the quality of life for many individuals. Additionally, protecting the green spaces of parks has been found to bring individuals together and work toward a common goal.

Knowledge and use of municipal parks can impact the medical field. If doctors knew and understood the importance of municipal parks and their impact on mental and physical health, doctors could encourage their patients to use local parks for treatment and recovery. For example, some parks include exercise equipment, and individuals that use them receive the benefit of the equipment and the benefits of being out in nature and interacting with others at the park. Equipment at the park is free to use and provides similar benefits as using equipment at the gym with a monthly fee. Parks have the equipment, open spaces, and walking trails that can meet the health needs of a diverse group of individuals (Henderson, 2023, p 34).

Definitions

Mental Health: Emotional, psychological, and social well-being. It affects how we think, feel, and act.

Municipal: Associated with or belonging to a city or town with its own local government.

Limitations

One of the limitations is the use of only Anna Maria College databases. If more databases could be used, then more research could have been done. Having more databases could also lead to finding more information about the thesis question. Another limitation was the lack of research on specific topics on municipal parks. There are some studies out there, but only a few, which limits the amount of research and studies that can be analyzed on the topic. Since this topic can benefit everyone, having more information can help people. Time constraints in writing this thesis are another limitation. There was only one semester to find research and write about this topic for the thesis. If there was more time, that could provide more research about the topic.

CHAPTER 2: METHODOLOGY

Initially, research was gathered from books available at the Anna Maria College library. Keywords used to search for books included "parks and recreation," "leisure," and "parks." The books that provided the best information were *Community Parks & Recreation* by Christopher Edgington, *Introduction to Recreation and Leisure* by Tyler Tapps, and *Why Cities Need Large Parks* by Richard Murray. Specific chapters were chosen from the book that closely aligned with the research topic. Chapters one, two, and four were selected from *Community Parks & Recreation*, and chapters chosen in *Introduction to Recreation and Leisure* were chapters one, two, three, six, twelve, and fifteen. The chapters read for the book *Why Cities Need Large Parks* were "Visions of Urban Green" and "Quality of Life."

The next step was searching for articles from Anna Maria College databases. The first database used was Academic OneFile. Search criteria were "parks and recreation" and the time frame of the last 20 years. Once articles were found under this search, the search was further narrowed to "parks physical health" and "parks mental health" to around twenty articles total. Academic OneFile was also searched for articles containing key terms of "parks mental health," "parks physical health," and "parks promote active lifestyle." The last search terms were "municipal parks" and "municipal park benefits."

The following database utilized was Gale OneFile Psychology. All results were peer-reviewed and published within the last 20 years. Search terms included "parks and recreation," "parks mental health," "parks physical health," and "parks promote active lifestyle." The phrases "municipal parks" and "municipal parks benefits" were also searched. Google Scholar was also used to search for articles within the last twenty years. The exact previous terms were

explored, including "parks and recreation," "parks mental health," "parks physical health," "parks promote active lifestyle," "municipal parks," and "municipal parks benefits."

There was a limitation on the databases that were used. The limitation was that only Anna Maria College's databases were available for the research. Another limitation was the amount of time allowed for the research. There were only a few weeks to search before starting to write the thesis. A pitfall in the methodology is that all the articles and books were about municipal parks only. Since the topic is on municipal parks, having articles or books on state or national parks would not add to the topic. A second pitfall was that many scholars had not researched the benefits of parks. Additionally, a lot of the articles are written by the same person. A success of the methodology was that there was some information about the benefits. The information that was found was scholarly and matched the criteria.

For more information regarding the search criteria, see Figure 1 in the Appendix.

CHAPTER 3: LITERATURE REVIEW

Municipal parks should be more utilized and appreciated. Some individuals do not use parks regularly, and some individuals do not use parks at all. This underutilization may be due to the need for more knowledge of parks' benefits. If individuals were more aware of what these public parks can offer, use would surely increase. One reason for underutilization could be the lack of accessibility for all users. For example, to access beaches, playgrounds, and walking paths, the ground may be uneven and thus challenging for those with mobility limitations. Additionally, individuals that rely on public transportation may need help getting to public parks.

Two groups that data shows use parks at low rates are girls and seniors (Cohen & Nagel, 2016). In 2016, the Rand Corporation studied how open spaces are designed, managed, and used. The study found that "girls are less likely than boys to spend time in parks" (Cohen & Nagel, 2016, para 5). Another fact the study found was that "seniors account for only 4 percent of park users" (Cohen & Nagel, 2016, para 7). In conclusion, the study results found that parks should encourage everyone to engage in physical activity. Though municipal parks are used most often by young men, there are activities for seniors and girls as well.

Additionally, another study highlighted just how much municipal parks are underutilized with the findings: "In a multi-part survey of 174 neighborhood parks across 25 major U.S. cities, researchers observed that children represented about 38 percent of weekly park use, despite making up just 18 percent of the general population" (Cohen, Han, et al., para 7). This data highlights how communities should encourage individuals to use these public spaces. How should communities increase use? Individuals in the community should have access to them,

and the areas of the parks should be accessible to everyone. In addition, the number of programs and activities offered in public parks should increase to increase engagement and utilization. Why should there be a push to increase public parks? The benefits of municipal parks fall into two categories: mental and physical health.

Mental Health

As mental health disorders continue to rise, parks can offer benefits to help people with symptoms and alternatives to traditional treatment. Going to a park for just five minutes can have measurable benefits on people's mental health ("Mental-health benefits of parks"). Five minutes of exercise in a park, walking on a trail, or using a field to do exercise, can benefit physical health and help with mental health: "Green exercise can boost short-term mental health" ("Mental-health benefits of parks," para 2). Green exercise is any form of physical activity in urban green spaces like parks. (Gladwell et al., 2013, para 1). Green exercise can improve self-esteem, tension, anger, and depression. (Gladwell et al., 2013, para 17) According to Gladwell et al. (2013), the first five minutes of green exercise significantly impacts mood and self-esteem.

Public parks have nature-based recreation activities or programs that people can attend. Nature-based recreation programs can vary from town to town, but examples are pickleball, tennis, a hike, walking, or softball. A study was done on how going to a nature-based recreation program can improve mental health (Lackey et al., 2019, para 1). The study found improvements in effect, cognition, restoration, and well-being, and a decrease in anxiety and depression symptoms when individuals took part in nature-based recreation activities (Lackey et al., 2019, para 20). Based on these findings, individuals should be encouraged to attend

nature-based programs. Healthcare providers should prescribe nature-based recreation programs as part of an alternative and cost-effective treatment plan (NC State University, 2022, para 15).

Research also shows the relationship between mental health benefits and distance to a park from participants' homes. Research shows that individuals who live closer to parks receive more significant advantages from parks. The open spaces allow for more natural environments, less air, and water pollution, and proximity allows for more daily use of public parks. Every community should strive to create open spaces to benefit those living in the community (Colman, 2015, para 2). Colman (2015) also found that people who live in areas with more parks report better mental health (Colman, 2015, para 3). Colman's research showed that people were happier and had lower levels of depression and anxiety. How do these parks improve mental health? Individuals can interact with nature, and parks have tai chi, yoga, and qigong programs that engage the body and mind (Colman, 2015, para 4).

Yoga in a park can have a positive impact on mental health. Yoga involves mind-body techniques to help manage mental health symptoms (Colman, 2015, para 4). "One of the best benefits of yoga is how it helps a person manage stress" ("The Benefits of Yoga"). Stress is a significant cause of mental health problems (Colman, 2015, para 3). Yoga can allow people to manage their stress in a positive way. Yoga can help reduce stress which can help with community members' mental health. Taking regular yoga classes is very beneficial to people that are struggling with their mental health ("The Benefits of Yoga"). Regular yoga classes can help with mental clarity and calmness, relax the mind, and relieve chronic stress patterns ("The

Benefits of Yoga"). In addition, when yoga is taken outside, it allows people to get vitamin D from the sun, which can help build bone (Banerjee & Kumar, 2023, para 6).

Allowing community residents to garden in municipal parks can offer mental health benefits. Not all community residents have the area or can afford a garden. Municipal parks can offer space for people to garden to help their mental health. Community gardening programs can teach people to garden and give community members a sense of socializing with others (Colman, 2015, para 5). Community gardening allows people to socialize because it offers a space where like-minded people can talk and relate to each other, whether it is about gardening or not. Benefits of gardening are "lower blood pressure, reduce stress, increase brain activity, and produce endorphins" (Colman, 2015, para 5). A simple act such as gardening provides the benefits of connecting with others, learning new skills, and improving mental health.

Exposure to nature can affect mental health positively. Municipal parks are outside, so going to municipal parks can have mental health benefits. People do not have to be physically active to benefit from green spaces. Being outside and being exposed to nature can give people mental health benefits. Reading a book in a park or journaling can positively affect mental health. Contact with or exposure to nature is "linked to the greater ability to cope with life stressors, improved work productivity, increased self-esteem, and greater life satisfaction" (Sturm & Cohen, 2014, para 10). The National Park and Recreation Association (NPRA) reports that regular contact with nature or being outside is required for good mental health (NPRA, n.d., para 3). To obtain benefits, community members should get out in nature or to a park once a week, which can positively affect their mental health (NPRA, n.d., para 2). The National

Parks and Recreation Association have found that the more times people went to a park that was outside, the less stress they had.

How close in proximity an individual lives to a municipal park can positively affect mental health. The National Parks and Recreation Association studied the proximity of individuals to municipal parks. It found that people who live near a natural green space or a park had significantly improved mental health (NPRA, n.d., para 2). This study also found that "people living more than one kilometer away from a park had nearly 50 percent higher odds of experiencing stress than those living less than 300 meters from a park. The study finds that the closer individuals live to a park, the less stress they experience. Communities with more parks will help their community members' mental health. When community members can walk to the park, that improves their mental health even more (Sturm & Cohen, 2014, para 26). Community members who can walk to a park are 4-5 times more likely to go there than people who have to drive or take another form of transportation (Sturm & Cohen, 2014, para 26). Proximity to a park allows for more utilization of the parks. The proximity to parks is essential.

When towns or cities have more parks, their community members can use them and access them for free. According to the National Institute of Mental Health, mental health affects 13 million American adults yearly. Having parks can help people work on their mental health to improve symptoms and lower costs associated with medical care.

Physical Health

Physical activity is on the decline, and sedentary activity is on the rise. Municipal parks allow people to increase their physical activity, which will benefit their physical health: "It is well-known fact that physical activity and a nutritious diet can improve health and well-being"

(Colman, 2015, para 1). The problem is that in the United States, there are few opportunities for individuals to be physically active, and some individuals need to know how to get physically active (Knox, 2013, para 4). There are gyms, but that costs money. Municipal parks offer people a free space where they can get physically active. Not only do municipal parks offer free space, but they also can have classes that help people to get physically active. Municipal parks allow the people of the town to go to the parks, allowing people to improve their physical health.

There is an influence municipal parks have on people's physical activity in communities. Parks and Recreation departments are vital in creating community physical activity (Henderson, 2023, p 23). The Parks and Recreation departments can also further promote physical activity to the community members (Henderson, 2023, p 23). A study was done to see "the purpose of people regarding physical activity and to interpret the results on how public parks can further promote active lifestyles" (Henderson, 2023, p 23). That study showed that people need to know how public parks can promote physical activity. As people learn how parks can promote physical activity, it allows for more use of parks too.

Playgrounds are one example of how children can get physically active in public parks (Henderson, 2023, p 23). Playgrounds allow children to run, climb, swing, and balance, promoting physical activity. Children playing on playgrounds build stronger muscles, improve their cardiorespiratory fitness, and promote cardiovascular health (Henderson, 2023). The community playgrounds are run by the town, making playgrounds free to use. There is also a benefit when community members can walk to a playground near them. Walking to the playground is another way to promote physical health in children and adults with them (Colman, 2015; Henderson, 2023). It is beneficial to communities that have neighborhood parks

and playgrounds in them. There are many physical health benefits when children play on playgrounds.

There is a new advancement in outdoor equipment for adults in municipal parks. This new idea allows adults to use outdoor activity equipment to help promote physical activity. Parks now include this idea with a space called the fitness area or zone (Sami et al., 2020, para 3). The fitness area includes equipment and a walking path around the park that people can use for walking, running, or biking. Since the town government owns municipal parks, the outdoor equipment is free, unlike the local gym. The Centers for Disease Control did a study on a group of people that used outdoor equipment in a park in California and how it affected their rates of physical activity; the results found were that the people's sedentary levels went down, and the number of people that used the outdoor equipment activity level increased to 23 percent (Sami et al., 2020, para 17). The study done in California showed that outdoor fitness equipment does increase physical activity (Sami et al., 2020). Parks and recreation departments can offer programs to help people learn to use the equipment. Programs that introduce outdoor fitness equipment will make people comfortable using the equipment and want to use the equipment more often. Improving park amenities like outdoor equipment allows people to increase their physical activity. When people increase their physical activity, then their physical health improves.

Walking paths and trails in parks are another way to help increase physical activity and promote physical health. Walking paths, paths around parks, or trails can be used for walking, running, and riding a bicycle. Walking paths and trails are designed to promote physical activity in parks. The American Heart Association states, "Every one dollar spent on bike trail and

walking path saves an estimated three dollars in health costs." There is a direct benefit from towns that spend money on creating paths or trails. Many people associate public parks with something other than walking trails, although trailheads are often located at local parks.

Walking paths and trails help improve cardiovascular health and weight control (Edgington, 2017; Tapps, 2019). Walking paths and trails help cardiovascular health because they help improve cholesterol levels, blood pressure, and energy levels. Those three things all improve cardiovascular health (CDC, 2022).

Organized sports are another way that municipal parks can benefit physical health. Organized sports are played in municipal parks, which is very common. Parks and recreation departments offer many organized sports. Some examples include tennis, pickleball, baseball, softball, soccer, basketball, and football. One benefit of organized sports is that "children who play organized sports become more physically fit, they have a higher self-esteem" (Wallace, 1998, para 1). When children or adults play organized sports, they help their bodies become more physically fit and start to work on their physical health. Adults who play organized sports are also gaining physical health benefits from them. They include lower blood pressure, lower high cholesterol, and weight loss, all while doing an organized sport that they like to do (Wallace, 1998, para 3).

Pickleball is an up-and-coming organized sport for seniors. Though it can be played at any age, it is taking off for seniors: "According to the Sports and Fitness Industry Association, participation had a 40% increase from 2019-2021" (Hampton, 2022, para 1). To play pickleball you can have skill level and ability which makes it great for people to play (Hampton, 2022, para 1). Pickleball is a social game where you are interacting with your opponent which allows

people to have positive social interactions but also allows for someone to talk to another person. There are many physical health benefits to the game. It can improve hand- eye coordination, general movement, and muscular strength (Hampton, 2022, para 4). This popular game has taken off by seniors in the United States because of its health benefits and that a game that can be played anyway a person likes it.

Yoga in a park is another activity or program that municipal parks can offer. Not only is yoga good for people's mental health, but it also benefits people's physical health. Parks and recreation departments can offer different types and levels of yoga, and the community can join the best yoga class. Yoga can increase muscle strength and tone, weight reduction, increased flexibility, improved respiration, and can lessen chronic pain" ("The Benefits of Yoga"). The techniques learned in yoga can help physical health and be incorporated into people's daily lives. Not only can yoga benefit the body, but it also helps people get outside and be with nature. Being able to be outside and with nature can improve people's mental health as well.

Going to activities and programs or being physically active at municipal parks can have many physical health benefits. The key to receiving those benefits is doing something involving physical activity. The Centers for Disease Control (CDC) says physical health benefits from being physically active are weight management, reduced risk of cardiovascular disease and some cancers, strengthened bones and muscles, and increased chance of living longer. (CDC, 2022, para 1). People have the best chances of gaining those benefits if they are physically active for 150 minutes a week, with 30 minutes a day for five days a week (CDC, 2022, para 1). Without physical activity, there will be no physical health benefits from going to municipal parks. There

has to be some form of physical activity to gain these benefits. Those activities include playgrounds, outdoor equipment use, walking paths, trails, organized sports, and yoga. All of those are ways to become more physically active at municipal parks. Once individuals are active and doing physical activity regularly, then physical health will improve.

Municipal parks can offer many ways and benefits for community members to improve their mental and physical health. Many benefits from municipal parks can help the people of the community. When towns or cities offer more municipal park space and activities, people can improve their mental and physical health. Without the community members knowing about municipal parks and their benefits from them, there is a lack of use of public parks. As community members go to municipal parks more often and regularly, that is when municipal parks are utilized more. Knowing these benefits for community members can improve their mental and physical health.

CHAPTER 4: DISCUSSION

Currently, mental health cases are rising in the United States, while physical health is declining (Amo, 2022, para 2). With that, there is a challenge for individuals and health providers to treat mental and physical health limitations. Municipal parks can offer benefits for both mental and physical health, but for individuals to benefit from parks, they must attend regularly. Everyone can benefit from programs and activities at the parks. Individuals who do activities such as yoga, gardening, playing a sport, walking on paths, or using outdoor exercise equipment move their bodies. Being outdoors and around nature also improves mental health.

Additionally, the research shows that being outside can help with more motivation to exercise, improve sleep, reduce depression symptoms, and assist with mental restoration (US Forest Service, 2021, para 7). Municipal parks also offer a safe place where people can get outside. Children and parents do not have to worry about the dangers of playing in the streets, and nonathletes are free to explore sports without the pressure of competition.

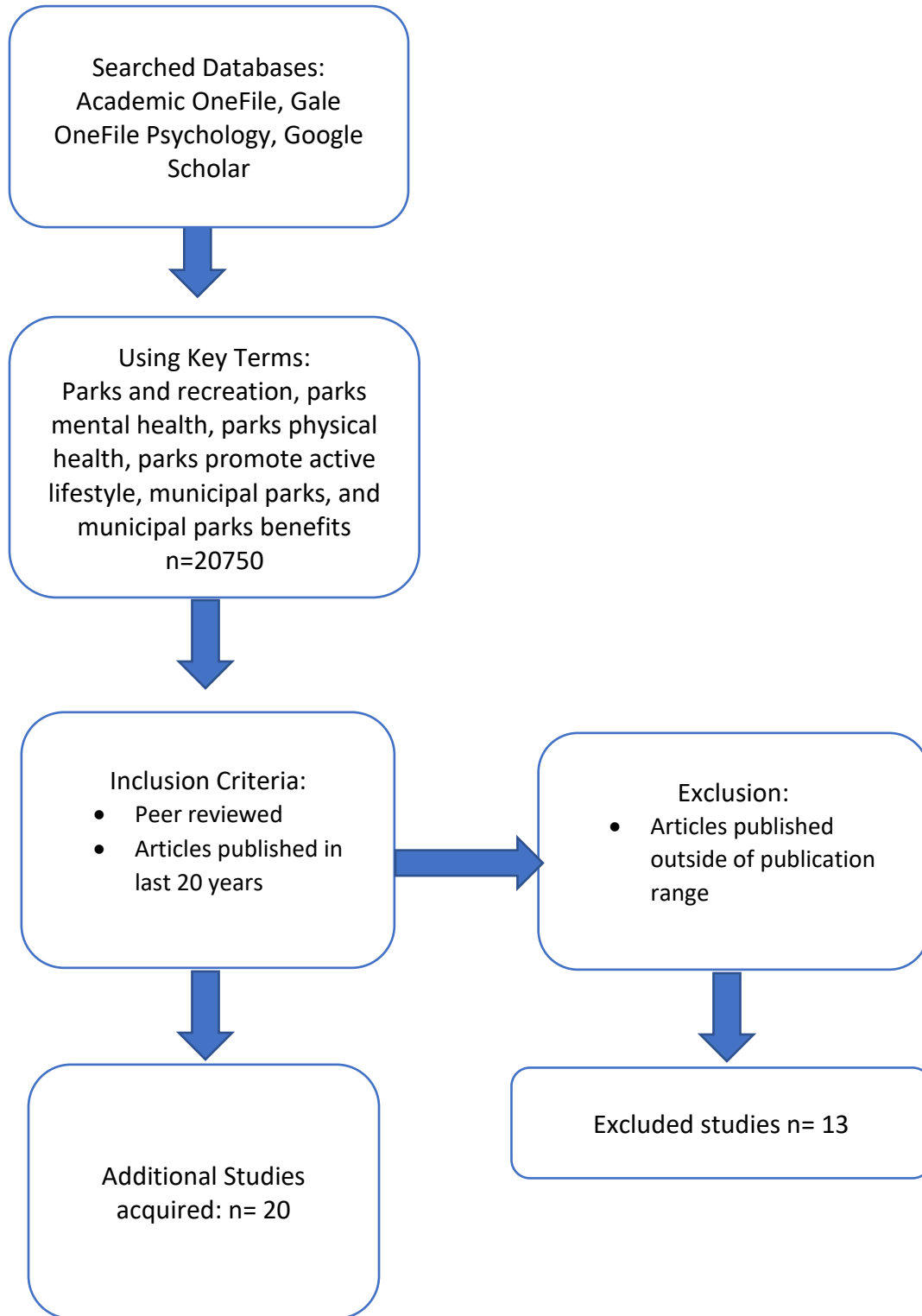
Though there are advantages to using municipal parks, many individuals still need to learn about these advantages, and as such, parks are seeing lower use than expected (Cohen & Nagel, 2016, para 2). Since there is a lack of utilization, there needs to be a push to get the information available and seen by communities. One way to do this is through the use of social media. Parks and recreation departments can share information about park hours, activities, and other information on their social media platforms. Local doctors and counselors should also advertise local parks and programs for their patients. If more individuals in the community knew about the parks, the programs offered, and how they can improve health, individuals might be more inclined to use them.

This integrative review of the literature examined the benefits of how municipal parks can help mental and physical health. Since there is an underutilization of municipal parks, community members can be informed of these benefits to improve the utilization of parks. There is not just one age group of people not utilizing parks; it is across the board (Bliss, 2016). This integrative review found many mental and physical health benefits to municipal parks. There were a few limitations to this study. One limitation was only access to Anna Maria College's databases. If more databases were available, more research could have been done. More research on municipal parks needs to be conducted, which is another limitation. If additional studies were completed, they could unearth more information about the use of parks that this research has not considered. Having more studies out there would have allowed for more information about their benefits of them. Moreover, if only mental or physical health were the focus of this research, the one topic could have been researched further with additional time not focused on other areas.

One recommendation if someone was to take the research further and conduct a study within a community to see what individuals who use parks report as benefits to park use. Data and additional research can be used to explore municipal parks further. Another recommendation is that due to the time limitation, future research should examine more databases and interlibrary loans to gather substantial data to back up claims. Finding other databases may allow for more research to be done.

APPENDIX

Fig. 1: Search criteria for databases



REFERENCES

- Amo, C., Almansour, N., & Harvey, I. S. (2022). Physical Activity and Mental Health Declined during the Time of the COVID-19 Pandemic: A Narrative Literature Review. *International journal of environmental research and public health*, 19(18), 11230.
<https://doi.org/10.3390/ijerph191811230>
- Annual City Parks Data released by the Trust for Public Land*. Trust for Public Land. (2011, December 12). Retrieved April 3, 2023, from <https://www.tpl.org/media-room/annual-city-parks-data-released-trust-public-land>
- Banerjee, A., & Kumar, S. (2023). Cardiovascular reactivity to stress in long-term yoga practitioners. *Journal of Family Medicine and Primary Care*, 12(2), 383.
https://link.gale.com/apps/doc/A740979619/AONE?u=mlln_c_annamc&sid=bookmark-AONE&xid=89f8db2
- Bedimo, A., Mowen, A., & Cohen, D. (2005). The significance of parks to physical activity and public health: A conceptual model. *American Journal of Preventive Medicine*, 28(2), 159-168. Retrieved April 3, 2023, from
<https://www.sciencedirect.com/science/article/abs/pii/S0749379704003046>
- Bliss, L. (2016, May 20). *RAND Corporation's national study shows urban parks are underutilized by adults, seniors, teen girls*. Bloomberg.com. Retrieved April 3, 2023, from
<https://www.bloomberg.com/news/articles/2016-05-20/rand-corporation-s-national-study-shows-urban-parks-are-underutilized-by-adults-seniors-teen-girls>
- Bohn-Goldbaum, E. E., Phongsavan, P., Merom, D., Rogers, K., Kamalesh, V., & Bauman, A. E.

- (2013). Does playground improvement increase physical activity among children? A quasi-experimental study of a natural experiment. *Journal of environmental and public health*, 2013. <https://doi.org/10.1155/2013/109841>
- Bricker, K. S., Brownlee, M. T. J., & Dustin, D. L. (2016). Healthy parks, healthy people. *Journal of Park and Recreation Administration*, 34(1), 1+. https://link.gale.com/apps/doc/A466413788/AONE?u=mlln_c_annamc&sid=bookmark-AONE&xid=d784f048
- Brownson, R. C., Boehmer, T. K., & Luke, D. A. (2005). Declining rates of physical activity in the United States: what are the contributors?. *Annual review of public health*, 26, 421–443. <https://doi.org/10.1146/annurev.publhealth.26.021304.144437>
- Centers for Disease Control and Prevention. (2022, June 16). *Benefits of physical activity*. <https://www.cdc.gov/physicalactivity/basics/pa-health/index.htm>
- Cohen, D. A., & Nagel, C. J. (2016, November 9). *The neighborhood park: An underused oasis*. RAND Corporation. Retrieved March 24, 2023, from <https://www.rand.org/blog/2016/11/the-neighborhood-park-an-underused-oasis.html>
- Cohen, D. A., Han, B., Nagel, C. J., Harnik, P., McKenzie, T. L., Evenson, K. R., Marsh, T., Williamson, S., Vaughan, C., & Katta, S. (2016). The First National Study of Neighborhood Parks: Implications for Physical Activity. *American Journal of Preventive Medicine*, 51(4), 419–426. <https://doi.org/10.1016/j.amepre.2016.03.021>
- Colman, A. (2015). Parks: Improving mental health and well-being. *Parks and Recreation*, 50(4), 36+,

https://link.gale.com/apps/doc/A413779997/AONE?u=mlin_c_annamc&sid=bookmark-AONE&xid=5845f5a2.

Community preservation committees. Community Preservation Coalition. (n.d.). Retrieved April 3, 2023, from <https://www.communitypreservation.org/CPCs>

Edginton, C. R., Lankford, S., Dieser, R. B., & Kowalski, C. L. (2017). *Community Parks & Recreation: An introduction*. Sagamore-Ventre Publishing LLC

Godbey, G., & Mowen, A. (2010). *The benefits of physical activity provided by Park and recreation services: The scientific evidence*. National Recreation and Park Association. Retrieved January 25, 2023, from

<https://static1.squarespace.com/static/5e5ed5a273a6545ab396c8e8/t/60bff50aabb164be5677a8/1623192843046/Benefits+of+Physical+Activity.pdf>

Gladwell, V. F., Brown, D. K., Wood, C., Sandercock, G. R., & Barton, J. L. (2013). The great outdoors: How a green exercise environment can benefit all. *Extreme Physiology & Medicine*, 2(1).

https://link.gale.com/apps/doc/A534829500/AONE?u=mlin_c_annamc&sid=bookmark-AONE&xid=32bc6db0

Hart, K. (2006). *Learn the history of playgrounds and playground equipment from AAA State of Play*. AAA State of Play. Retrieved April 3, 2023, from

<https://www.aaastateofplay.com/history-of-playgrounds/>

Hampton, J. (2022, December). *Health benefits of pickleball*. Recreation & Physical Education.

Retrieved April 18, 2023, from <https://recreation.duke.edu/story/health-benefits-pickleball/>

Handwerk, B. (2021, February 2). *An evolutionary timeline of homo sapiens*. Smithsonian.com.

Retrieved April 18, 2023, from <https://www.smithsonianmag.com/science-nature/essential-timeline-understanding-evolution-homo-sapiens-180976807/>

Henderson, K., Neff, L., Sharpe, P.A., Greaney, M., Royce, S.W., & Ainsworth, B. (2001). "It takes a village" to promote physical activity: The potential for public park and recreation

departments. *Journal of Park and Recreation Administration*, 19(1), 23-41. Retrieved

January 25, 2023, from [https://www.researchgate.net/profile/Karla-](https://www.researchgate.net/profile/Karla-Henderson/publication/266479710_23_It_Takes_a_Village_to_Promote_Physical_Activity_The_Potential_for_Public_Park_and_Recreation_Departments/links/54b51fda0cf2318f0f9722b5/23-It-Takes-a-Village-to-Promote-Physical-Activity-The-Potential-for-Public-Park-and-Recreation-Departments.pdf?origin=publication_detail)

[Henderson/publication/266479710_23_It_Takes_a_Village_to_Promote_Physical_Activity_The_Potential_for_Public_Park_and_Recreation_Departments/links/54b51fda0cf2318f0f9722b5/23-It-Takes-a-Village-to-Promote-Physical-Activity-The-Potential-for-Public-Park-and-Recreation-Departments.pdf?origin=publication_detail](https://www.researchgate.net/profile/Karla-Henderson/publication/266479710_23_It_Takes_a_Village_to_Promote_Physical_Activity_The_Potential_for_Public_Park_and_Recreation_Departments/links/54b51fda0cf2318f0f9722b5/23-It-Takes-a-Village-to-Promote-Physical-Activity-The-Potential-for-Public-Park-and-Recreation-Departments.pdf?origin=publication_detail)

Knox, E. C., Esliger, D. W., Biddle, S. J., & Sherar, L. B. (2013). Lack of knowledge of physical activity guidelines: can physical activity promotion campaigns do better?. *BMJ open*,

3(12), e003633. <https://doi.org/10.1136/bmjopen-2013-003633>

Lackey, N.Q., Tysor, D.A., McNay, G.D., Joyner, L., Baker, K.H., & Hodge, C. (2019). Mental

health benefits of nature-based recreation: A systematic review. *Annals of Leisure*

Research, 24(3), 379-393. <https://doi.org/10.1080/11745398.2019.1655459>

Lee, K. J. J., Pitas, N., Powers, S., Graefe, A., & Mowen, A.J. (2020). Understanding access and

use of municipal parks and recreation through an intersectionality perspective. *Journal of Leisure Research*, 51(4), 377-396. Retrieved January 24, 2023, from

[https://www.researchgate.net/profile/Kangjae-Lee-](https://www.researchgate.net/profile/Kangjae-Lee-2/publication/338286204_Understanding_access_and_use_of_municipal_parks_and_recr)

[2/publication/338286204_Understanding_access_and_use_of_municipal_parks_and_recr](https://www.researchgate.net/profile/Kangjae-Lee-2/publication/338286204_Understanding_access_and_use_of_municipal_parks_and_recr)

eation_through_an_intersectionality_perspective/links/5e279fc3a6fdcc70a140c01f/Understanding-access-and-use-of-municipal-parks-and-recreation-through-an-intersectionality-perspective.pdf

Lewis, R. (2017, May 18). *Were ancient humans healthier than us?* DNA Science. Retrieved April 18, 2023, from <https://dnascience.plos.org/2017/08/31/were-ancient-humans-healthier-than-us/>

MacMillan, A. (2022, November 29). *Mental illness is on the rise*. Health. Retrieved April 3, 2023, from <https://www.health.com/condition/depression/8-million-americans-psychological-distress>

Maller, C., Townsend, M., St Leger, L., Henderson-Wilson, C., Pryor, A., Prosser, L., & Moore, M. (2009). Healthy Parks, Healthy People: The Health Benefits of Contact with Nature in a Park Context. *The George Wright Forum*, 26(2), 51–83.
<http://www.jstor.org/stable/43598108>

Mandell, W. (1995). *Origins of mental health*. Johns Hopkins Bloomberg School of Public Health. Retrieved April 3, 2023, from <https://publichealth.jhu.edu/departments/mental-health/about/origins-of-mental-health>

Mental-health benefits of parks. (2010, September-October). *The Futurist*, 44(5), 4.
<https://link.gale.com/apps/doc/A235729799/AONE?>

Municipal park definition. Law Insider. (n.d.). Retrieved April 3, 2023, from <https://www.lawinsider.com/dictionary/municipal-park#:~:text=Municipal%20park%20means%20an%20area%20that%20is%20zoned,operat>

ed%20on%20a%20noncommercial%20basis%20for%20recreation%20purposes. u=mlyn_c
_annamc&sid=bookmark-AONE&xid=a520e9d5

National Recreation and Park Association (n.d.) *Parks and improved mental health and quality of life*. [https://www.nrpa.org/our-work/Three-Pillars/health-wellness/
ParksandHealth/fact-sheets/parks-improved-mental-health-quality-life/](https://www.nrpa.org/our-work/Three-Pillars/health-wellness/ParksandHealth/fact-sheets/parks-improved-mental-health-quality-life/)

NC State University. (2022, April 20). *How parks and green spaces can improve your health*.

College of Natural Resources News. <https://cnr.ncsu.edu/news/2022/04/parks-green-spaces-improve-health/>

Noyes, A. M., & Wilkinson, K. M. (2022). Supporting Access to Mental Health Services for Patients Who Use Augmentative and Alternative Communication: A Proposed Framework and Suggestions for Future Directions. *American Journal of Speech-Language Pathology*, 31(5), 2268+. https://link.gale.com/apps/doc/A719992725/AONE?u=mlyn_c_annamc&sid=bookmark-AONE&xid=a3d9376a

Orstad, S. L., Szuhany, K., Tamura, K., Thorpe, L. E., & Jay, M. (2020). Park Proximity and Use for Physical Activity among Urban Residents: Associations with Mental Health. https://link.gale.com/apps/doc/A632145469/AONE?u=mlyn_c_annamc&sid=bookmark-AONE&xid=97d3a158

Rabare, R. S., Okech, R., & Onyango, G. M. (2009). The role of urban parks and socio-economic development: case study of Kisumu Kenya. *Theoretical and Empirical Researches in Urban Management*, (12), 22+. <https://link.gale.com/apps/doc/A210652752/AONE?>

Rosenberger, R., Bergerson, T., & Kline, J. (2009). Macro-Linkages between Health and Outdoor Recreation: The Role of Parks and Recreation Providers. *Journal of Park and Recreation*

Administration, 27(3), 8-20. Retrieved January 25, 2023, from

https://www.fs.usda.gov/pnw/pubs/journals/pnw_2009_rosenberger001.pdf

Sami, M., Smith, M., & Ogunseitan, O.A. (2020). Placement of outdoor exercise equipment and physical activity: A quasi-experimental study in two parks in southern California.

International Journal of Environmental Research and Public Health, 17(7), 2605+.

doi: 10.3390/ijerph17072605

Slater, S. J., Pugach, O., Ragonese-Barnes, M., & Banner, R. (2022). Transforming Parks into

"Magical" Places for Play: Evaluating the "Meet Me at the Park" Play Spaces Grant

Program. *Journal of Park and Recreation Administration*, 40(4), 82+.

https://link.gale.com/apps/doc/A726042464/AONE?u=mlic_c_annamc&sid=bookmark-AONE&xid=19cb3f46

Sturm, R., & Cohen, D. (2014). Proximity to urban parks and mental health. *The Journal of Mental Health Policy and Economics*, 17(1), 19–24.

Tapps, T. N., & Wells, M. S. (2019). *Introduction to recreation and Leisure*. Human Kinetics.

The benefits of Yoga. (2021, January 22). *American Osteopathic Association*.

<https://osteopathic.org/what-is-osteopathic-medicine/benefits-of-yoga/>

Tempesta, T. (2015). Benefits and costs of urban parks: a review. *Aestimum*, (67), 127+.

https://link.gale.com/apps/doc/A539920992/AONE?u=mlic_c_annamc&sid=bookmark-AONE&xid=63ededc3

Wallace, M. A. (1998). Organized sports increase children's fitness and self-esteem. *AORN*

Journal, 68(6), 993.

https://link.gale.com/apps/doc/A53459796/AONE?u=mlln_c_annamc&sid=bookmark-AONE&xid=abad2dc1

Weiss, D. R., O'Loughlin, J. L., Platt, R. W., & Paradis, G. (2007). Five-year predictors of physical activity decline among adults in low-income communities: a prospective study. *The International Journal of Behavioral Nutrition and Physical Activity*, 4.

https://link.gale.com/apps/doc/A159281111/AONE?u=mlln_c_annamc&sid=bookmark-AONE&xid=abad2dc1

Xie, P. F., Yeatts, E., & Lee, B. (2013). Perceived benefits of National Recreation and Park Association certifications: a case study of certification holders in Ohio. *Scholar: A Journal of Leisure Studies and Recreation Education*, 28(2), 28+.