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ORIGINAL RESEARCH ARTICLE

Income and Health Perceptions in an Economically Disadvantaged Community: A Qualitative Case Study from Central Florida

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Abstract

The link between income and adverse health outcomes continues to be problematic among racially and economically segregated urban communities. Although the consequences of living in areas of concentrated disadvantage have been delineated, there is a dearth of knowledge on how citizens from such areas perceive the effects of neighborhood characteristics on their individual and community health. This qualitative study explored how minority residents (N = 23) viewed the intersectionality of income and health within their urban neighborhoods of economic distress. Focus groups were conducted using semi-structured interviews to better understand health concerns, needs, and barriers for individuals and their community. The main finding highlighted how residents desired to be healthy, but economic barriers prevented them from maintaining a healthy lifestyle and diet. While residing in a concentrated disadvantaged community, lack of income and power contributed to stress and fear that forced residents to prioritize survival over their wellbeing. Implications for improving individual and community health include operating within a systems framework to affect collective efficacy and empowerment among residents of low-income neighborhoods.

Keywords Health · Economic disadvantage · Concentrated disadvantage · Community efficacy · Community empowerment · Systems theory

Ecological and contextual factors shape health outcomes in addition to individual-based factors (Acevedo-Garcia et al., 2003; Artiga & Hinton, 2019; Braveman & Gottlieb, 2014; Pickett & Pearl, 2001; Williams & Collins, 2001). Racial and economic segregation are the ultimate drivers of health disparities in communities of concentrated disadvantage (Braveman & Gottlieb, 2014). Social isolation influences

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income by decreasing job opportunities compared to residents of economically developed communities who rely on their networks. The absence of these connections and opportunities in accessing the labor market, job opportunities, education, and health care systems creates concentrated disadvantage (Wilson, 2012). Urban communities that are less economically developed tend to have worse health conditions and health outcomes than more developed ones (Kawachi & Kennedy, 1999; Pickett & Pearl, 2001; Pickett & Wilkinson, 2015). Economic poverty significantly impacts pregnancy outcomes, child development, general health conditions, and mortality rates (Hotez, 2008).

This study explored the relationship between income and health perceptions of minority residents to learn the health concerns of the residents to improve community health. Although a significant amount of research has been done to analyze the impact of income on individual and community health (e.g. Hill-Briggs et al., 2021; Lynch et al., 2000; Meara et al., 2008; Swanson et al. 2009; Singh et al., 2017 Swanson & Sanford, 2012; Wilson, 1989, 1993, 2012), it lacks the community perspective and lived experience to understand the key needs and health priorities of the minority residents. The researchers selected a community-based participatory research approach (CBPR) to fulfill this gap. This approach aims to inspire social change, redesign service delivery based on concerns of the community residents, and as a result, improve service access and community health in general (Minkler, 2005).

This qualitative study employed community-based participatory research to understand better the lived experiences of residents from "The Vicinity." The community population is approximately 6,000 residents and covers 1.3 square miles (U.S. Census Bureau, 2017). The child poverty rate is 73%, and the average household income is approximately $15,000. Compared to the city, the crime index of the community is two times higher (U.S. Census Bureau, 2017). The Vicinity has experienced many issues as other urban segregated African American communities, such as disenfranchisement, disruption, and violence, particularly drug distribution and gun violence (U.S. Census Bureau, 2017). The community is limited in access to grocery stores, restaurants, recreational spaces, transportation, and health care facilities. Approximately 41 percent of children in The Vicinity have chronic health problems. Prevalent adult health conditions include hypertension, diabetes, obesity, and heart disease (U.S. Census Bureau, 2017).

This article contributes to the current discussion of the relationship between income and the health of residents in a low-income community in several ways. First, the study utilized the community-based participatory approach that allowed us to understand better the residents' health needs, concerns, and priorities and the impact of income on their health. Results of the study were presented to all stakeholders aiming to improve the current policies. Second, the study's findings inform a conceptual framework to assist researchers, practitioners, and policy administrators in better understanding income barriers and health needs in economically distressed communities. Third, the authors suggest recommendations for improving culturally relevant health care responses, including operating within a systems framework to affect collective efficacy among residents of low-income neighborhoods.

Communities with higher levels of collective efficacy are more likely to band together and have the social power to maintain or improve their community's well-being (Cohen et al., 2006).

Literature Review

Intersectionality of Income Inequality and Health

The World Health Organization (1946) defines health as "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity." Social determinants of health can be described as conditions in the environment in which individuals are born, live, develop, play, learn, and work; and these conditions significantly affect an individual's quality of life, lifestyle, and health risks and outcomes (Hill-Briggs et al., 2021; Singh et al., 2017; World Health Organization, 1946). Health inequalities can be viewed as an outcome of social injustice in which political and economic structures systematically impair or otherwise hinder the health of vulnerable individuals.

Research underscores the significant impact of economic conditions and income on health outcomes for those facing concentrated disadvantage. Economic barriers affect healthcare access and realizing a healthy lifestyle (Lynch et al., 2000; Pickett & Wilkinson, 2015; Stronks et al., 1997; Wallace, 1995). Lower socioeconomic status in the United States is associated with lower life expectancy (Meara et al., 2008; Swanson et al., 2009; Swanson & Sanford, 2012). For instance, women with higher socioeconomic statuses are more likely to survive breast cancer, as they have access to early screening, treatment, and thus recovery, more so than their economically disadvantaged counterparts who may not even have insurance coverage (Sommers et al., 2017; Woolf et al., 2006). Residents from the low-income communities tend to experience more often disabilities and health problems such as insomnia and depression (Mendenhall et al., 2017), functional limitations (Glass & Balfour, 2003), asthma (O'Connor et al., 2004), diabetes (Hill-Briggs et al., 2021) or vision problems (Baker et al., 2005) than residents of high- and middle-income communities.

The health of children who live in disadvantaged communities is affected in various ways, including their physical growth, emotional wellbeing, and cognitive development (Alaimo et al., 2001; McLoyd & Wilson, 1994). Additionally, children living in economic poverty have decreased immunization opportunities compared to children from middle-class income households (Wagstaff, 2002).

Residents of communities experiencing concentrated disadvantage face more barriers to maintaining a healthy lifestyle than middle-class and upper-class individuals (Kahn et al., 2000; Morland et al., 2002). Quality of diet is impacted by income, as those who are more economically privileged can access, purchase, and consume healthy foods (Yoshikawa et al., 2012). Families with higher incomes tend to be more active because they have more options for exercising in safe recreational spaces and more income available for gym/sports memberships. Economic segregation also relates to other disproportions, as people who live in

exclusively high-income areas have more access to cleaner air and better public services (Dreier et al., 2004). Additionally, limited financial resources often impact one's ability to acquire health insurance coverage and quality health care (Sommers et al., 2017).

A lack of financial resources is linked to social isolation and exclusion, contributing to depression and stress among residents of low-resourced communities (Yoshikawa et al., 2012).

Neighborhood Characteristics as Social Determinants of Health

Neighborhood characteristics in urban communities of economic disadvantage negatively impact various basic needs for healthy living, including housing, transportation, safety, and security (Warr et al., 2007; Woolf et al., 2006). A lack of financial resources restricts individuals on where they can reside; their housing choices, therefore, are limited to some geographical regions often located within the inner city. Communities are characterized as disadvantaged because of chronic unemployment, concentrated poverty, local public services, racial stigma, high percentages of households headed by single females, and high levels of crime and violence (Jargowsky, 1997; Dreier et al., 2004; Sampson, 2012). Neighborhood context directly influences health, as in the case of exposure to crime and violence. Additionally, the environment can indirectly influence through such mechanisms as the availability and accessibility of health care services, healthy food, safe spaces for physical activities, and social support in the community (Pickett & Pearl, 2001).

Food insecurity is defined as living without an opportunity to have a healthy diet due to the inability to access and afford healthy foods (Butkus et al., 2020; Chen et al., 2016). Often, low-income communities do not have proper access to fresh vegetables and fruits due to the location in the food desert. Food deserts tend to locate in disadvantaged and minority communities (Butkus et al., 2020). Health food is less available and more expensive to residents of disadvantaged communities. Lack of access to healthy food can lead to stress and poor mental and physical health (Crowe et al., 2018). It was found that living in a food desert led to anxiety, and as a result, residents of such communities become more vulnerable to depression (Wu & Schimmele, 2005). In low-income commonalities, due to the unequal access to healthy food, obesity is higher in such communities than the middle- and high-income ones (Chen et al., 2016).

For residents of disadvantaged communities, limited public transportation routes and geographical coverage interferes with accessing timely and available healthcare assistance (Boeri et al., 2011; Wagstarr, 2002). Syed et al. (2013) note how "transportation barriers may mean the difference between worse clinical outcomes that could trigger more emergency department visits and timely care that can lead to improved outcomes" (p. 989). Lack of public transportation or dependency on transportation from others often impacts whether individuals can even get to pharmacies and health care facilities, let alone maintain their appointments. Inadequate transportation can impact the quality of care and screening delay, treatment initiation, and completion (Hilmers et al., 2012).

Additionally, to the unequal access to healthcare services and untreated medical conditions, the lack of transportation might lead to unreported abuse and violence, depression, and self-neglect (Adorno et al., 2018; Hensher, 2007). Moreover, a lack of available transportation also limits access to supermarkets and grocery stores, particularly if they do not exist within the local community. Limited food options preclude individuals from acquiring and maintaining a healthy diet (Morland et al., 2002).

Crime vastly impacts the quality of life and health outcomes (Morrall et al., 2010) at the neighborhood (Skogan, 1986) and city level (Drier et al., 2004). Skogan (1986) explains that even fear of crime, irrespective of its cause, may catalyze and accentuate neighborhood turmoil. As fear of crime increases, individuals may also be more prone to withdraw physically and psychologically from their community. Research has shown (Beller & Wagner, 2018; Curry et al., 2008; Dustmann & Fasani, 2016; Wilson-Genderson & Pruchno, 2013) that living in an area with a high level of crime leads to a high level of stress, and as a result, residents of such communities face the development of mental health problems (McLoyd & Wilson, 1994). Additionally, studies (Cohen et al., 2012; McKenzie et al., 2013) indicated that due to the high level of crime in low-income communities, residents use parks significantly less compared to medium- and high-income communities. A high level of crime causes the feeling of being unsafe and, as a result, affects residents' willingness to spend time outside (Han et al., 2018).

The collective perceived disorder, including the stigmatization of segregated African American communities, also leads to fear of outsiders to live or invest in the community, which negatively impacts economic development, along with opportunities to decrease crime and improve health conditions (Dreier et al. 2004; Sampson, 2012). Stigma is one of the barriers to healthcare services for residents from isolated communities. Previous research (Beller & Wagner, 2018; Butkus et al., 2020; Cruz et al., 2008) found that stigma can prevent individuals from seeking care for depression. These factors coexist in areas of concentrated disadvantage and play a significant role in inhibiting neighborhood change (Becker, 2019).

Wilson's (1989, 1993, 2012) theory of social isolation highlights how those residing in racial and economically segregated communities become isolated because there are fewer social ties with individuals outside of their community. Additionally, only a few people have access to work, transportation, education, and services. Such communities, therefore, have few resources to overcome a sense of powerlessness, along with stereotypes and negative perceptions associated with their community. Communities are characterized as disadvantaged because of chronic unemployment, concentrated poverty, restricted public services, racial stigma, high percentages of households headed by single females (Edin & Lein, 1997; Ezeala-Harrison, 2010; Franklin, 1992; Garfinkel & McLanachan, 1986; Klebanov et al., 1994), and high levels of crime and violence (Dreier, et al., 2004; Sampson, 2012). Economic barriers affect healthcare access and realizing a healthy lifestyle (Lynch et al., 2000; Pickett & Wilkinson, 2015). Economic and racial segregation are the ultimate drivers of health disparities in communities of concentrated disadvantage (Braveman & Gottlieb, 2014). Mays et al. (2007) highlight how regardless of societal changes, African

Americans experience discrimination from health care providers and experience significant disparities in health outcomes compared to Caucasian counterparts. For example, cardiovascular disease mortality per 100,000 persons for African Americans is 321.3 and is significantly higher than for Caucasians (245.6) (Mays et al., 2007, p. 2).

Socially isolated communities have little social power as residents are not often represented in the public policy decision-making process, and, even if they are, their voices are not prioritized (Dreier et al., 2004). McCubbin (2001) explored pathways to illness, health, and wellbeing anchored in the social, economic, and political dimensions of human life that produce, and reinforce power and powerlessness on the individual and collective levels. Power relations are embedded in circles of power structured by how societies live and distribute resources. Quality of life such as feeling good, having decent housing, food, and clothing, along with being a valued member of families and communities is connected and are consequences of power and powerlessness. Power is a social, economic, political, and cultural phenomenon that determines who has power and what kind that is mobilized through two sources: power through resources and power through decisions (Lukes, 2021).

Socially isolated individuals, groups, or communities, as in the case of urban areas of concentrated disadvantage, are limited in social ties and networks with the mainstream institutions in the society. Consequently, they lack the influence or the resources to address the negative stigma and deprivation associated with their community (Bryer & Prysmakova-Rivera, 2018; Dreier et al., 2004; Sampson, 2012) As a result, residents perceive that nobody cares about their problems, and they feel forgotten or ignored by the broader polity (local authorities and citizens). Residents, therefore, may not trust institutions, organizations, and individuals outside of the community, thereby making community engagement difficult (Bryer & Prysmakova-Rivera, 2018).

Current Study

This study used a community-based participatory research design and qualitative methods to explore residents' perceptions regarding the intersectionality of income and perceptions of health. Scholars (Ahmed & Palemro, 2010) suggest that community-based participatory research (CBPR) aims to engage the community in the research process to improve the community's ability to address its own health needs. CBPR helps build, develop, and sustain equitable partnerships and ties between residents, researchers, and policy stakeholders (O'Fallon & Dearry, 2002). The community-based participatory approach makes community residents not only study participants but partners in the research process (Campbell-Voytal, 2010). CBPR can include different methods and techniques; however, there are several commonly used guiding principles: 1) building trust relationships with community residents; 2) promoting the co-learning and collaborative capacity building among all involved stakeholders; 3) involving key stakeholders in all phases of the research process; 4) presenting research findings to all participants involved in the CBPR (Dulin et al., 2011; Minkler, 2005; O'Fallon & Dearry, 2002).

Qualitative research addresses the contextual nuances concerning the barriers and solutions populations find to manage high-risk environments in studying health and

wellbeing (Atieno, 2009). The research question for this study was co-created with residents of The Vicinity and includes: How do residents perceive the impact of income on their health and the health of their community?

Methods

Participant Demographics

Twenty-three residents of the urban community in central Florida participated in the CBPR. The median age of the residents was 40 years – it varied between 27 and 81 years old. The majority of the CBPR participants were African American (90%), female (87%), and received Medicare/Medicaid (70%). Most of the study participants were unemployed (61%), had an income of $10,000 or less (57%), had a high school education or less (61%), and were single (57%). On average, participants had lived in The Vicinity for 18 years – the minimum was 1 year and 61 years the maximum.

Sampling and Data Collection

To conduct CBPR, a purposive sampling technique was selected (Robinson, 2014). Using purposive sampling, the research group intentionally invited the residents of The Vicinity to participate in the CBPR because they have the most relevant knowledge and experience regarding their community's health situation and status (Guest et al., 2006).

Residents were first sought through a community event, where they were provided information on a potential study regarding residents' perceptions of individual and community health concerns, needs, and barriers. Interested respondents were provided the following options for participant involvement: study collaborator, the participant only, or to serve in both roles. Five people requested both roles, and the remainder requested the participant role only. Community collaborators provided input regarding the research and interview questions and participant and data collection procedures.

The research team spent time building relationships and ties with community residents before the data collection process. Upon obtaining approval from the university institutional review board, the research team (including community collaborators) recruited CBPR participants inviting them face-to-face to the local community and using advertisements on the social networks and online event board posts. The research group distributed invitation flyers on the street and shared hardcopies in neighborhood establishments. In addition, local nonprofits and organizations were reached (schools, family restaurants, and churches). Moreover, the invitation flyer was posted online on the social media site of the community. Several criteria were used to participate in the study: 1) participants had to be 18 years or older; 2) to be a current resident of one of the three neighborhoods of The Vicinity.

Participants were invited to participate in focus groups held at a local community center in the early evening (i.e., dinner time). Six focus groups were organized – each focus group included three or more people based on their residence census tract blocks – this aimed to capture perceptions and experiences of specific geographical locations. Before the start of the interviews, participants were asked to sign an informed consent that informed them regarding their rights, confidentiality, the purpose of the study, and the voluntary status of the participants. Each participant selected a pseudonym that was used during the interviews. The interview lasted approximately 60 min and was audio recorded. Compensation for their time included a $40 gift card for study collaborators and a $20 gift card for participants. In addition, childcare supervision was organized, and local eatery provided dinner for participants.

The interview guide consisted of six open-ended questions related to personal and community health: 1) Think about the last time you had a health-related need or were sick; where did you turn for information and services? 2) How does income affect your health? 3) What are the barriers to a healthy lifestyle where you live?) How would you describe the effect of crime on your health and the health of your community? 5) How are you involved in decisions to improve the health of your community? Moreover, 6) Is there anything else you would like us to know about the health needs in your community?

Study participants were asked to complete a brief survey after the focus groups. The survey included socioeconomic characteristics (e.g., income, employment, and children living in the home), demographic characteristics (such as gender, age, race/ethnicity), and other questions related to the community characteristics (for example, whether participants had witnessed acts of violence in the community or if they utilized community resources).

Ethics

The study did not produce any personal, organizational, or psychological risks to the community members. The collected data was used only for research purposes. Before the start of the data collection process, the research team obtained approval from the Institutional Review Board. Before interviews, study participants were informed about the data collection process and procedure. The research team collected informed consent forms and reminded participants that the interviews would be recorded. The interviews were conducted by a research team.

Data Analysis

The data were analyzed in several stages – quantitate and qualitative data were analyzed separately. To analyze quantitative data and run descriptive statistics on survey items, SPSS software version 25 was used. The qualitative data analysis aimed to assess qualitative data for common themes to explain participants' perceptions and experiences regarding social problems in the community. This was done to develop and implement the appropriate solutions to address the social issues. Qualitative

data from the focus groups were transcribed verbatim by the research group and uploaded to Dedoose—the online qualitative analysis software. A codebook was developed, and to increase reliability, the transcripts were coded by two researchers (Sapat, Schwartz, Esnard, & Sewordor, 2017).

To analyze data, a constant comparison method was used. Open coding allowed for the finalization of the codebook, while axial coding involved identifying properties within each code. Selective coding was used to look between codes and subcodes to determine how they relate. Community collaborators reviewed and provided input on the preliminary analysis. Additionally, all participants were invited to attend the community-wide meeting where the results were presented to residents, service providers, and city officials.

Results

Participants expressed a desire to live healthily yet were unable to do so because of an array of socio-ecological factors, including individual (i.e., income, fear, isolation), environmental (i.e., eco-hazards, distressed neighborhoods, crime), and community (i.e.., trauma, disempowerment) influences. The main barrier to adopting and maintaining a healthy lifestyle for all participants was lack of income. Every day they made significant life-bearing decisions, such as using their income to pay rent or get medication. Perceptions of crime and a lack of safety contributed to stress and fear in participants' daily lives, often preventing them from leaving their residences. Community trauma and distress overwhelmed residents precluding them from feeling empowered to affect change in their community.

Role of Income on Health

Participants underscored how income negatively impacted access to health care resources. They were often faced with prioritizing their needs, such as paying rent and living or going to a doctor for medical attention and medication. Alternatively, they were putting off regular physical screenings for preventive measures because of the cost, as they needed money to feed their families. Similar limitations were found for those who had public health insurance (most often Medicaid).

> *By the time I get through paying rent and cable, there's nothing left as far as me needing to go out and get the medication that I would need that Medicaid cannot pay for or would not pay for*. (Peaches, female, age 43)
> *As a female, because breast cancer runs in my family, I have to get a mammogram every year, and I was unable to get a mammogram because I didn't have the insurance to get it, so I had to skip like two years of getting a mammogram. So I mean, if I don't have any medical insurance, then I just laid off the female stuff that I need. I just don't get it. I pass it up*. (Lion, female, age 34)
> *My income would impact my health or my kids' health, depending on the insurance we have. Sometimes doctors prescribe something, and the insur-*

ance doesn't cover it, and I have to call again and worry about getting another appointment or something for their prescription to get changed because I can't afford the prescription. (Brooklyn, female, age 33)

Socioeconomic and neighborhood conditions also influenced unhealthy ways of living in The Vicinity. For instance, how to figure out how to feed their children when only unhealthy food options were available and affordable. Alternatively, how to support their children's needs to play and be active when stepping outside of their homes meant their child's life was often at risk.

One of the barriers to having a healthy lifestyle is, first of all, having the money for it…If you are a one-parent household, you know, it seems more cost-efficient to buy the stuff at the fast-food restaurant even though it's not good for you. It is cheaper. Like even if you go to the fast-food restaurant, you want a salad, but it costs 5 or 6 dollars. But a burger is a dollar. Like what are you going to buy your kid? Burger, right? Or you have to go and buy a big pizza. And so that's a problem not having funds to be able to buy healthier food. Like you go to the store, a bag of oranges is $4, and a bag of chips, it is like 50 cents…It is hard to eat healthier when it is not affordable. (Jasmine, female, age 29)

Finding ways to pay high rent and utility bills, along with purchasing expensive medication and healthy food, created stress for residents. Additionally, living in a community where exposure to crime was not only possible but most often likely, produced another layer of tension for residents in their daily lives. Such stress took a toll on their overall health and wellbeing.

I'm 64, so I'm not out much. I don't like going out my door. Not even if it's just in the area, you can't go to the mailbox, you know, you scared to go out. I'll put it out there. I am scared to go out. And it causes stress. It's just stressful. (Nay Nay, female, age 65)

When you finish paying your bills, sometimes you don't even have enough to get your medicine; there is no help out here, like a lot of the communities that I see. So basically, that's what it is, stress with most people, me too. (Boss, male, age 44)

Role of Economic Segregation on Health

The role of economic segregation generated a host of environmental and contextual factors that negatively impacted individual and community health. Poor environmental conditions included residing in areas of high air pollution and land contamination, and inadequate sidewalk access. Accessible and affordable public transportation was limited. Eating establishments often did not deliver in the area, and there were no available grocery stores in The Vicinity. Additionally, residents were often confined to their homes as perceptions of crime and safety prevented them from

using parks and recreational areas in their neighborhoods. Illegal drug solicitation and sales occurred in public spaces, such as city streets and parks.

Poor environmental conditions The Vicinity is surrounded by ongoing highway construction as the city continues forward with its downtown urban development. Participants expressed concern about not receiving necessary information regarding environmental hazards where they lived and, consequently, were not informed about how it might impact their health.

> *There is a lack of transparency on information about what might be causing illnesses in the community. I'm finding now that our community of many, many years has environmental issues that's been causing a lot of problems… It is a lack of telling us that the land was contaminated.… The community is completely surrounded by the highway - so air quality [is poor]. So, we have a community that has so many layers of things that affect our health.* (Buddy, female, age 56)

Transportation limitations Transportation was a barrier that prevented residents from going to the doctor or accessing healthy food and other residential infrastructures (parks) to support their health needs. Residents reflected on the added cost of transportation for already financially strapped individuals, which often interfered with their desire to live a healthier lifestyle. Transportation was not just a medium to get from one place to another. However, transportation also encompassed one's ability to get gas, reach a bus stop, or even pay for bus tickets to get to one's destination.

> *Like, cause I know I used to go to like a Save-A-Lot for certain things, Walmart for certain things, but as far as meat, I would go to an actual meat store because the meat is way cheaper. You can get a pack of meat from Walmart for 6 or 7 dollars, and you can go to the meat store and get it for like 3. But now you got wasting my gas [to get to meat marked outside of the community]. So it's like a never winning cycle.* (Country Girl, female, age 40)

Food desert Participants understood the importance of eating healthy foods and its influence on their health. However, because The Vicinity is a food desert, they needed to go outside of the community to access healthy and fresh food (like fruits and vegetables). The most frequent type of restaurant in The Vicinity is fast food. High-priced healthy food was not a choice for residents, especially households headed by a single parent. Their priority was for their children to not go hungry, and so they tried to fulfill this responsibility with inexpensive food choices.

> *Why do we have to travel out of the community to go get the healthy foods? There are other communities that I know of have everything they need in their community; they do not have to go out of that community. We don't even have our own grocery store.* (Grandma, female, age 54)

Barriers to physical activity Participants expressed how they wanted to lead more active and healthier lifestyles. They understood the importance of physical exercise and being involved in outdoor activities. However, limited financial resources and an absence of safe recreational places (parks, playgrounds, sports centers) did not allow residents to enjoy an active lifestyle. Green or recreational areas were scarce, and those areas that did exist were often affected by crime. Consequently, without safe areas to walk, exercise, or for children to play outdoors, options for maintaining a healthy lifestyle were limited.

> *There is nothing over here. No healthy food places, no recreation parks. This is nothing over here to basically help the community keep a healthy lifestyle. It's too scary to even walk out of the house because of the way people coming around shooting up people and then different things going on like a few years ago they had a gang of girls, and they would go around and just like beat up on younger girls.* (Pear Shady, female, 45)

Crime and safety Participants expressed that drug crime and gun violence were significant concerns for The Vicinity. Residents reported that they could not afford to move to a safer place. Thus, they lived in fear with limited options besides remaining indoors to affect their safety and their families.

> *My kids don't go outside. I won't let them go to the store…We've been having like so many people at least once a week, someone is on the corner dead or in the yard dead…I don't have enough income to move to another place because I get disability.* (Ontario, female, age 35)

> *Too worried or afraid of even going to parks, you know with the kids or anything. So basically, at least with my kids, unless I know the person, they don't have the opportunity to make new friends unless they're at school because there's no more like before [in the past] going to the park and meeting people there.* (Brooklyn, female, age 34)

Role of Community Trauma and Disempowerment on Health

Participants reported how The Vicinity is a traumatized community because of economic distress, high crime levels, neighborhood disorder, and violence, including mistreatment from police. As a result, residents did not feel empowered to affect the health and wellbeing of their community.

> *They [people external to The Vicinity] feel that they're threatened, but we're the actual ones that's threatened because we live in that area. We over here fearing for our lives because we don't have the protection that we need. (Shady Lake, male, age 20)*
> *One point four square mile radius is a traumatized community. All the policing, it is trauma. So psychologically, we have been traumatized not because of the crime or because of the drugs, but because of the treatment of the citi-*

zens that has really been traumatized…and trauma it does affect your health. (Buddy, female, age 56)

Participants reported feeling judged and stigmatized by people outside of The Vicinity. For instance, Mookie (female, age 32) stated, "Everybody's [viewed as] a drug dealer, or everybody's a drug user." Participants perceived such stigma and negative stereotypes as reasons why external entities such as politicians, organizations, and businesses were less invested in community engagement and empowerment.

It's like the kids of The Vicinity; they get left behind. But why? I feel like if we had someone truly that was standing up to what they say and they believe, then we all as one gonna come together and make this a better place for our youth, but until then, it's not going to be that way. They get left out, but why? Why? It's not fair to them. It's not fair to us as parents either as well. (Peaches, female, age 43)

The only thing I would like to add is accountability, work within the community, and empowerment of the community. You should be able to identify one or two gatekeepers, community organizers, somebody in the community people trust. You need to get to know them and have them go and introduce you to other people in the community, but that's the only way you're going to be able to be seen and heard in the community. They [community residents] skeptical now, people are very skeptical, so identify your gatekeepers, identify your people who've been in this community, there will open that door for you and allow you to meet others, so you can help. (Buddy, female, age 56)

Discussion

The main research finding underscored how residents desired to be healthy, but income and economic barriers prevented them from maintaining a healthy lifestyle and diet. The study findings confirmed the previous studies (Hill-Briggs et al., 2021; Lynch et al., 2000; Meara et al., 2008; Swanson et al., 2009; Yoshikawa et al., 2012) that income impacts the community health through numerous mechanisms such as uncertainty, unhealthy lifestyle, and constant stress.

Social isolation, lack of income, and a disadvantaged community contributed to stress and fear that forced residents to prioritize survival over health prevention and maintenance. Residents of The Vicinity focused on living in the present rather than planning for the future. They perceived a lack of power to affect community conditions impacting their lives, such as decreasing crime, enhancing safety, or improving their health. Participants were acutely aware of the importance of eating healthy and being physically active, but their choices were often limited to unhealthy strategies to survive.

Figure 1 provides a conceptual framework to guide public policy and practice regarding culturally sensitive responses to income barriers and health needs in

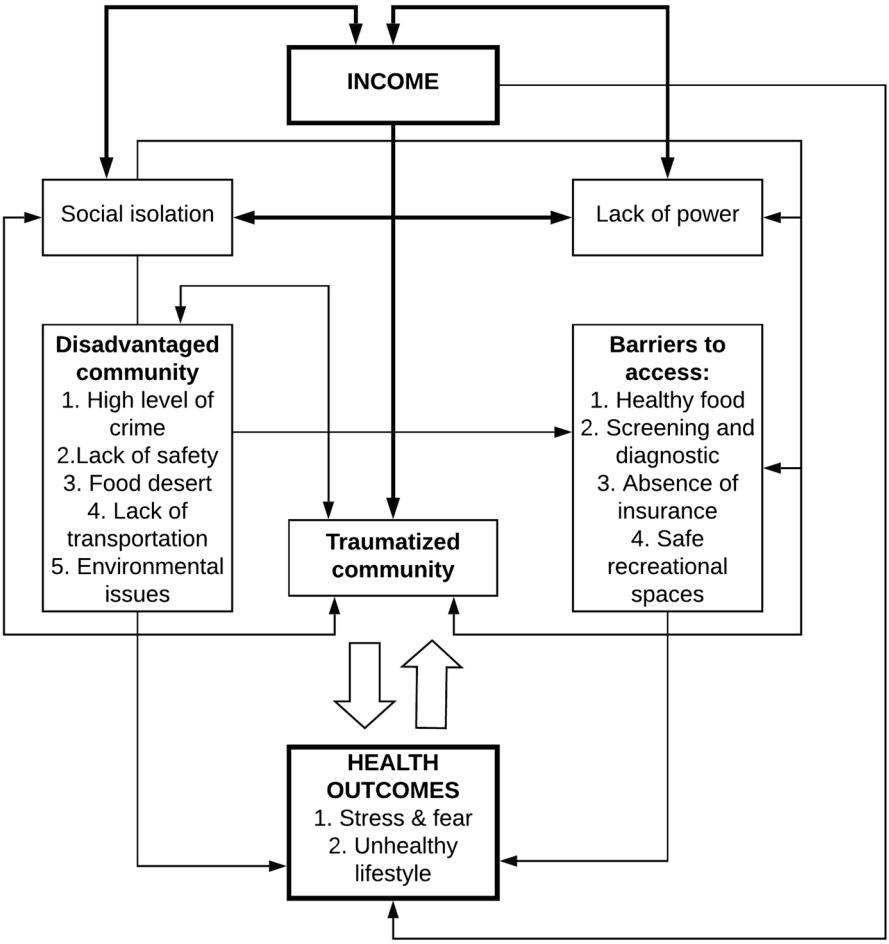

Fig. 1 Conceptual Framework

economically distressed communities. Informed by social isolation and disorganization theories (Jargowsky, 1997; Wilson, 2012; Sampson, 2012), along with residents' lived experiences from The Vicinity, Fig. 1 highlights the intersectionality between income and health outcomes for low-income communities. Residing in areas of economic disadvantage, along with residents' income limitations, presented barriers to accessible health care (i.e., insurance, screening, diagnostic), a healthy lifestyle (i.e., healthy food, safe recreational spaces), and emotional wellbeing (e.g., stress, fear, trauma). Community trauma is significant since it can be transmitted across time and can impact the behavioral patterns of future generations (Watson et al., 2020). Life experiences were associated with a lack of power (Bachrach & Baratz, 1962, 1963). Residents often had limited social capital to better their lives, have their voices heard, or influence the public policy decision-making process.

Such circumstances are often commonplace among residents of low-income communities (Yoshikawa et al., 2012).

Engagement, Efficacy, and Empowerment in Disadvantaged Communities

Strengthening the role of the community in the policy response is crucial to improving health service delivery to the residents. Taking the residents' concerns into consideration and sharing power to make key decisions regarding community health will improve health outcomes (Klein, 2004). The policy response should be redesigned from one where the community residents are treated as a problem to one where they are decision-making citizens and part of the solution. As a result, residents will not only be consumers, but they will have an opportunity to influence the policy process and decide what services are necessary to change and improve the health situation in The Vicinity.

Study participants recognized significant problems in The Vicinity and experienced a sense of powerlessness, yet this did not deter them from improving their community. They participated in the study to have a voice and impact change for themselves and others. The study's findings were presented at a community-wide meeting in the Vicinity, where about 60 residents, service providers, and city officials attended. An open planning session ensued among attendees to formulate ideas for the next steps following the presentation. The event was held at a city-sponsored community center and open to the public. RSVPs were requested but not required. The intent was to provide information and mobilize resources to respond collaboratively to community barriers that prevented accessible health care, a healthy lifestyle, and emotional wellbeing in The Vicinity. We learned that bringing different stakeholders together is an important step; however, it should not be the first step to building social capital for residents of economically disadvantaged communities.

Although many community residents attended, their voices were overshadowed by well-intentioned service providers and city officials, who were more focused on highlighting what they were already doing for the community rather than dialoguing about resident-identified need areas. The information was essential and underscored the need for improved communication between external entities and residents, as many were unaware of existing resources. However, it did not provide an avenue for residents to lead the process and brainstorm the next steps. In hindsight, this outcome was not unexpected. Even though residents of The Vicinity identified with their community, they lacked opportunities to operate as a collective to amplify and address their needs. Our CBPR study did not provide sufficient community engagement to build the collective efficacy needed to affect power dynamics and influence change. Consequently, the need for additional focus groups became apparent to further exchange information, build networks, develop a collective voice, and plan to address the needs of The Vicinity.

Our study highlighted how residents want to affect change and share common concerns and goals of what they would like different for their community but do not have the connections and resources to do so. Consciousness-raising among groups of residents has the potential to build such networks and social capital. This form of

social organization can improve the efficiency of a community by facilitating collaborative action (Leonardi et al., 2001). Bourdieu (1986) identifies social capital as accumulating resources linked to a network. Social capital, therefore, depends on network size and how fast it can be mobilized when action is needed (Bourdieu, 1986; Foucault, 1982). Communities with higher levels of social capital and collective efficacy can influence community-level outcomes like the health and wellbeing of a neighborhood (Attree et al., 2011).

Social capital provides a foundation for social collaboration and cooperation for the common good (Hardy & Leiba-O'Sullivan, 1998). Collective efficacy, conversely, is the perceived ability of members of a community to influence social processes through action (Lee, 2005). Collective efficacy depends on the trust between members, will to participate, solidarity, and belief that action will lead to the common good (Wheeler, 2016). Our study discovered how residents from The Vicinity did not believe their actions could lead to change; in other words, a lack of collective efficacy. Collective efficacy may be influenced by infusing empowerment practices in communities of concentrated disadvantage. Grass-roots empowerment helps strengthen social capital among community members and improves its level of collective efficacy (Morris & Gilbreath, 1996). Consequently, the perspectives of those experiencing the social problem firsthand are amplified to understand contextual factors better and thus develop culturally relevant and appropriate community solutions.

Empowerment is defined as the opportunity for a community to develop, implement, and control solutions on both individual and community levels (Hardy & Leiba-O'Sullivan, 1998; Perkins, 1995). There are several levels of empowerment. For instance, on the individual level, it may involve one's participation in neighborhood organizations. The Vicinity has two neighborhood associations that may serve as a starting point for connecting with trusted gatekeepers and building community solidarity. Locals know and understand how the community environment functions (Perkins & Zimmerman, 1995). On the organizational level, it may involve neighborhood associations and other community entities (Black-owned businesses) working together toward collective strategies and shared responsibilities and leadership. On the community level, empowerment may include catalyzing focus groups throughout The Vicinity for a shared understanding of community problems, mobilization of community resources, and maximizing the involvement of all community members in the decision-making process (Bryer & Prysmakova-Riviera, 2018; Perkins & Zimmerman, 1995).

Limitations

Generalizability is one of the limitations of the study. The sample size of 23 study participants might not reflect the actual perceptions of the community's health problems (N = approximately 6,000 residents). For example, a comparative analysis of the sample's demographic characteristics with the population's demographic characteristics revealed some differences. The proportion of unemployed participants in the sample is higher than in the population. Unemployed individuals may have more

time and opportunity to participate in research studies than full-time employees. Another demographic difference between the study sample and the characteristics of the population is the ratio of males to females. Although they made up only 46% of the population, 87% of the study participants were women. There is a similar difference between the sample and the population regarding race/ethnicity: African Americans make up 90% of the study sample, while their proportion is 16% lower. This can potentially skew the study results because men and women have different perceptions of safety and stigma. Previous research suggests that ethnic minorities and women are more likely to be stigmatized than whites and men (Roeloffs et al., 2003). The scholars and policymakers should explore these issues by conducting quantitative and qualitative research with larger samples.

Implications

Study participants experienced economic, environmental, social, and health conditions typically associated with disadvantaged communities, including income limitations, eco-hazards, social isolation, food insecurity, inadequate public transportation, unsafe outdoor spaces, and exposure to drug crime and gun violence (Boeri et al., 2011; Dreier et al., 2004; Morland et al., 2002; Wagstaff, 2002). When tackling a complex issue such as the intersectionality of income inequality and health disparities, it is crucial to understand the interconnected relationships and influences to identify viable solutions (Maziak & Ward, 2009). Ecological systems theory recognizes that intrapersonal, interpersonal, community, institutional, and societal factors all influence a person and his/her environment (Bronfenbrenner, 1977; Larson et al., 2015). Our findings provide guidelines for areas of impact at each level to improve health outcomes for residents of The Vicinity and communities living in concentrated poverty. Community residents and municipal stakeholders should intentionally develop and sustain the dialogue. Constant dialogue and community participation regarding the local healthcare decision-making process should be key strategies to improve the delivery and access to the health services in The Vicinity. There was a disconnect between external entities (service providers, businesses, faith community) and residents regarding available resources within their community at the community-wide event. This study contributed to the capacity-building to ensure that The Vicinity and policymakers are better equipped to redesign current programs to re-prioritize the priorities taking into account the interests and concerns of the community residents.

Thus, we recommend improved and accessible provider information systems, including community social media outlets (e.g., Facebook), to provide updated information on resources and opportunities related to employment, health care, transportation, and healthy living. Having a central repository of community resources would allow organizations to share and update their information for residents to access regularly.

The use of information and communication technologies (ICTs) provides another avenue for delivering health care information and interventions to low-come populations that are often socially isolated (Jabour et al., 2018). This is even more essential with the impact of COVID-19, as communities that were already socially excluded have become even more so. The use of ICTs might include creating a mobile application for residents to access, as low-income populations often have cellular phones more so than computer/internet access (Milton et al., 2011; Mitchell et al., 2014). A mobile application on health and wellbeing specific for The Vicinity could provide an array of resources related to health and welfare, such as a calendar of health-related community events, nutritional menu plans, mental health interventions to reduce stress, career training, employment opportunities, and community health services. Text alerts on imminent safety and welfare issues would also be essential to inform and help residents activate necessary protection measures promptly.

Public transportation accessibility and availability are a problem in The Vicinity and are a significant barrier for residents accessing primary healthcare. Working with healthcare providers to provide telehealth or mobile medical services to the community would allow increased access to preventative and maintenance measures (i.e., screenings, testing) and possibly decrease emergency room visits as their main primary care option. Mobile self-care (mHealth) is also recommended where community members could capture and monitor their health data through mobile technology. This is of interest and impact for managing chronic conditions (e.g., diabetes) in medically underserved populations (Humble et al., 2016).

The Vicinity's current healthy food efforts include an urban garden, a farmer's market, and a mobile food truck. These efforts bring healthy food into the community; however, there are still challenges with providing adequate access. For example, the mobile food truck currently runs twice a month and typically occurs during daytime hours. This prohibits residents that work during the day from having access to this service. The community's Farmer Market accepts Supplemental Nutrition Assistance Program (SNAP) benefits; however, it is only open once a week, limiting residents' access to quality food.

Additionally, one urban garden is not sufficient for a population of approximately 6,000. Funding for a full-service grocery store, coupled with point-of-sale incentives for healthy food purchases, is one example of multilevel interventions that might empower residents and community stakeholders to create a healthier community. If SNAP provided monetary incentives for states to bring full-service grocery stores to food deserts such as The Vicinity, this would increase residents' access and stimulate the local economy.

The residents shared concerns regarding the policing activity and the level of crime and violence within the community. Reducing crime and fear of crime within The Vicinity needs to begin with building/rebuilding trust between residents and the police and restoring the organization's legitimacy (Maguire & Duffee, 2015; Nimruzi et al., 2018). Community policing and police involvement in community outreach programs are advised to attain this goal. This would help to transition its focus from mostly crime-fighting and surveillance to community service provision, including pro-active police engagement with the community. Community-based participatory research suggests that the local police should redesign the approach toward the

community. Constant community meetings with residents will help build and sustain trust relationships between police and the residents. It will also help to hear the main concerns of the community members and provide an adequate response. We recommend creating joint law enforcement-community boards that meet regularly to discuss residents' safety concerns, including perceptions of police conduct and mistreatment in the community. Also, law enforcement's use of social media may provide new opportunities for community engagement through contact, sharing of information, and avenues for immediate participation in safety and security issues (Leventakis & Haberfeld, 2018).

Systems theory provides an avenue for understanding growth and development regarding individuals' health outcomes within the entire ecological system (Bronfenbrenner, 1994). For low-income communities, factors such as income and access to a healthy diet and lifestyle impact health outcomes on the individual level. Interpersonal factors involve social support (or the lack thereof) from personal and professional networks that affect one's health. Community-level conditions such as the built environment, food prices, and crime exposure similarly influence health outcomes in economically distressed populations. At the institutional level, health outcomes for low-income minorities are impacted by racism and classism. Additionally, societal policies influence the accessibility, availability, and affordability of health care, affecting health outcomes for disenfranchised populations (Yoshikawa et al., 2012). Sallis et al. (2015) suggest that efforts to address complex social problems will be most effective if there are interventions across such levels of influence.

Conclusion

The overall health outcomes for residents of The Vicinity were stress caused by income limitations and safety concerns. Unhealthy ways of living were also influenced by socioeconomic and neighborhood conditions within the community. Communities with higher levels of community engagement and collective efficacy can influence community-level outcomes like the health and wellbeing of a neighborhood (Attree et al., 2011). Increasing social capital, collective efficacy, and empowerment will help reduce the negative consequences of poverty, achieve sustainable community development, and decrease adverse health outcomes in The Vicinity.

This also paves the way for the co-production of public services. Those typically targeted as end-users now become collaborative co-producers and effective agents of change to sustain solutions over time (Oliveira et al., 2014).

Declarations

Conflict of Interest The research team declares no conflict of interests.

Ethics Approval and Consent to Participate The study did not produce any personal, organizational, or psychological risks to the participants. Before the start of the data collection process, the research team obtained informed consent forms from study participants.

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