

Original Article

Assessment of community health needs in Makkah: A qualitative study

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ABSTRACT

Objectives: Assessing population health needs have been an important factor that enables healthcare systems to attain value-based care and use resources efficiently. This study aims to assess the health needs for two communities residing in Makkah City, Saudi Arabia.

Materials and Methods: A qualitative study design with focus groups were conducted between January 2022 and March 2022 to assess health needs among two communities residing in two different districts in Makkah City (Alzaidy and Al-hajj Street). Recruited participants were divided into five groups according to their age (0-12 (parents represented this group); 13-24; 25-45; 46-65; and over 65 years), and each group had 5 to 9 participants.

Results: Participants have identified several needs and concerns within their communities. These needs were classified into five main themes: Access to physical activity; access to healthcare services; healthy lifestyle; environmental instability; and education/promotion programs for community. Although, identified needs varied among age groups and geographic locations of communities, the needs to access healthcare services and physical activities was frequently mentioned among participants.

Conclusion: This is the first study to assess community health needs in Makkah. Even though the results were not generalizable, the study has laid the foundation for future projects and research assessing population health needs. A population-level data might help in determining population health needs and inform future policies and decision-making.

Keywords: Population health management, Health needs assessment, Community health needs

INTRODUCTION

The Kingdom of Saudi Arabia (KSA) has made extraordinary development in enhancing its population's health over the latest decades, especially with inside the regions of infant and maternal mortality, reduction of infectious diseases, and improving the average life expectancy at birth.^[1,2] Despite those advances, many health problems nonetheless want to be addressed.^[1] As a part of its Vision 2030 program, the KSA wants to restructure the health sector to be a comprehensive, effective, and integrated health system that is based on the health of its population.^[3] The National Transformation Program was developed to identify several challenges including, but not limited to, population coverage gap, sub-optimal care delivery with limited focus on population empowerment, preventive and primary care, variation in outcomes across groups, and regions.

Population health and population health management (PHM) can address these challenges by serving as a guide for health transformation in the KSA. The PHM is a comprehensive framework for directing value-based care in healthcare reform. Namely, the PHM approach will help to empower patients and cover population needs.^[4] Thereby, the local community's needs will guide the improvement and adaptation of accessibility to healthcare facilities and the provision of a range of healthcare services at various levels of care.

Therefore, implementing PHM requires a plan for conducting community health needs assessment (CHNA). A CHNA will assist decision-makers in gaining a general understanding of health challenges and concerns in the community, as well as in identifying opportunities for improvement.^[5] A CHNA should be considered a continual, cyclical, and evolving process rather

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than a finalized result.^[6] CHNA has been adopted in many healthcare systems, including in the United States, China, and Australia. In China, for example, CHNA assists decision-makers in identifying priorities and problems, as well as in developing strategies to improve community health and raise health awareness.^[7] Another study in Vietnam found that community health stations should provide more comprehensive services, including chronic disease management, and that healthcare providers should improve their skills.^[8] However, there is not enough data to assess the progression and implementation of the CHNA concept at the national level.

The concept of CHNA at the national level has been identified as central to the transformation of healthcare in KSA, and it is still in progress in some areas; however, there is insufficient evidence with which researchers can evaluate its progression and implementation. As a result, the Ministry of Health and other healthcare institutions should work together to conduct a CHNA to ensure the transformation of healthcare systems and improve outcomes to meet the Saudi community's health needs.^[1] This study conducted a CHNA in two communities residing in Makkah City to gain a better understanding of their health needs and to evaluate and pilot test the process of conducting CHNA.

MATERIALS AND METHODS

Study design

The study applied a qualitative study design with focus groups to determine the health needs of two communities residing in two different districts (Alzaidy and Al-hajj Street) in Makkah City. After a couple of meetings with the PHM team, these two districts in Makkah had been chosen. These two districts have different cultures, communities, sociodemographics, and resources in terms of schools, hospitals, and restaurants.

Focus group procedures

Focus groups are group discussions in which five to 12 individuals participate to express their experiences and opinions on certain problems directly connected to the research question. The group was selected based on specific demographic characteristics, and for the purpose of this research, participants were divided into five groups based on their age (0–12; 13–24; 25–45; 46–65; and over 65-years-old), and each group had 5–9 participants. Participants from the age group (0–12) were represented by their parents.

A discussion guide that included five main questions was used to facilitate the focus group discussions. The five questions were: “How would you describe the health of your community?; What are the most pressing health needs of the community?; What are the factors that cause the health needs of this community?; How do you prioritize the health needs facing your community?; and What kinds of assets and resources in the community can be used to help the population improve their healthy lives?”

Sample and recruitment

This study was targeting residents of Alzaidy and Alhajj Street districts in Makkah City, KSA. Young participants were recruited through schools and coffee shops while elderly people were recruited through mosques, Quran schools, and primary health-care centers.

Data collection process

The data for this study were gathered between January 2022 and March 2022 through focus group discussions. Five researchers (AB, MD, AS, RG, ND, and JZ) were available during the focus group discussions to lead and record the discussions. The focus group discussions were conducted in Arabic, and each discussion lasted 30–45 min and was recorded with the consent of the participants. Then, discussions were terminated when the topic was sufficiently covered, and no new information was emerging. A summary of the results was reviewed with the participants at the end of each focus group which allowed participants to check, revise, and prioritize emerging concerns.

Data analysis

Researchers began with recording each focus group discussion which was secured with the consent of participants. Furthermore, researchers took notes and captured some data during the interviews, which were also used for data analysis. Following each focus group, researchers used the contact summary form to make notations of the important themes discussed. Memos were also utilized near the end of the focus groups, to record themes and ideas that emerged as the research progressed. Following the completion of the focus groups, researchers combined the material gleaned from the note-taking, contact summary sheets, and memos to build a checklist matrix for each question.

Human subjects protection

The study protocol was submitted to the Makkah Health Affairs General Directorate's Institutional Review Board (IRB) for review and approval. The IRB reviewed the study protocol and approved it (IRB Approval Number: 9-0822-K076-02-H).

RESULTS

A total of 253 community members were recruited and participated in this study. About 56% of the participants were female. Participants were divided into 42 focus groups; 22 groups were conducted in Alzaidy and 20 groups were conducted in Alhajj Street, and each group had 5–9 participants. [Table 1] shows the distribution of the study sample based on age, gender, and district.

Table 1: Distribution of the study sample by age groups, districts, and gender (n=253).

| Age groups | Districts | | | |
|------------|-----------|--------|---------------|--------|
| | Alzaidy | | Alhadj Street | |
| | Male | Female | Male | Female |
| 0–12 | 8 | 16 | 10 | 9 |
| 13–24 | 18 | 13 | 18 | 9 |
| 24–45 | 10 | 25 | 12 | 29 |
| 46–65 | 9 | 16 | 12 | 5 |
| >65 | 9 | 9 | 4 | 12 |

The collected data showed that the needs varied among age groups and communities' geographic locations. The identified needs were classified into five themes: Access to physical activity, access to healthcare services, healthy lifestyle, environmental instability, and health education/promotion programs for the community.

Theme 1: Access to physical activity

Several members of the focus groups stated that a need for access to physical activities, such as gyms, walking areas, public parks, and social care centers, is critical. They think that the lack of access to gyms and walking areas is a contributing factor to the prevalence of obesity in the country.

"We don't have a gym in the neighborhood, there is no sports place for children." (Age group 0–12, F).

"The walkway is important and there is no one in the neighborhood." (Age group 46–56, M).

Female participants also discussed the need for public parks because they assume that spending time in green spaces decreases stress and anxiety, lowers heart rate, and improves concentration and overall mood. They also need a place for walking and entertainment places for children.

"There are no parks, and the existing parks are dirty." (Age group 13–24, F).

"There is no entertainment place for children." (Age group 46–65, F).

The situation was different for elderly people, over the age of 65 years. They need a social center to contact and socialize with people of the same age, and also, they think that walking may help them to lose weight and improve their overall health. Moreover, elderly people place a high value on safety, too.

"The walkway in the neighborhood is very dangerous and accidents always happen." (Age group over 65, M).

Participants have also highlighted one of the barriers that limit the level of physical activity. The expensive gym

membership fee was considered a common barrier that limits the level of physical activity among community members, in particular among young adults.

"Gym is expensive." (Age group 13–24, M).

"Gyms are overpriced." (Age group 46–65 F).

Theme 2: Access to healthcare services

Most of the participants reported that they need access to healthcare services, which is considered the most important priority from their perspective. Their concerns were about the lack of certain services in healthcare centers and the location and distances to healthcare centers and emergency departments.

"My son had his finger cut off and we had to go for a quarter of an hour's ride to access the emergency center." (Age group 0–12, F).

"Health services are far from us." (Age group 25–45, F).

Furthermore, participants from the age group (0–12), who were represented by their parents, emphasized the lack of some services at healthcare centers, such as vaccination doses for children, as well as the difficulty to make appointments for their children.

"We suffered from vaccinations. They started and then stopped at the beginning of COVID-19, and there are not enough vaccinations even outside the neighborhood." (Age group 0–12, F).

Participants from the age groups (13–24 and 24–45) also discussed the difficulty of making appointments and the inability to obtain appropriate care due to the crowdedness at healthcare centers and limited resources at specialty clinics.

"There are no appointments, we need to wait for months to get an appointment for teeth." (Age group 13–24, F).

Participants aged over 65 have another difficulty which is using digital applications to book an appointment or order medicine.

"It is difficult to book an appointment from the application. We are elderly and do not know how to use devices, and the workers must take this point into account." (Age group over 65, M).

Furthermore, one of the participants highlighted several issues in the healthcare centers including the poor quality of the services provided and the shortage of staff.

"Lack of health staff and the inefficiency of the health staff" (Age group 13–24, M).

A few participants from the age groups (13–24 and 24–45) also expressed that there was a lack of health services within the communities, such as dental and pharmaceutical services.

Furthermore, one respondent from the age group (0–12) expressed her need for an autism clinic in the community.

“There are no pharmacies, just one pharmacy in the neighborhood.” (Age group 25–45, F).

One of the participants indicated that schools need a health specialist to provide healthcare to students and teachers in schools.

“We need a specialist or a nurse in every school. As a teacher, I lack the necessary experience to serve, and I may harm the student.” (Age group 25–45, F).

Most of the participants ≥ 46 years of age expressed a desire to obtain special care for elderly people. They wanted to undergo a periodic health examinations, facilitate their access to high-quality health services, enhance the role of the family doctor, and provide home care. The provision of medicines and devices to measure blood pressure and glucose was also highlighted as a facilitator that enables elderly people to monitor their health status.

Theme 3: Healthy lifestyle

Everyone in the community wants to live their best life, to be well and happy in a safe environment, and everyone has the right to do so. Most participants stated that they wished to improve their health habits and the surrounding environment, which affects individuals. They also highlighted how malnutrition happens in school canteens, which might instead be used as a source of information about good dietary practices for children.

“The canteen does not have a variety of food.” (Age group 13–24, F).

In addition, both male and female participants claimed that there is a lack of healthy restaurants nearby and that there are just fast-food places.

“All restaurants are fast food.” (Age group 0–12, F).

“Most restaurants are unhealthy and do not support the health of the population.” (Age group 46–65, M).

Meanwhile, a few females mentioned the need for specific entertainment facilities to boost their lifestyle and mental health.

“We need a space for handicrafts and entertainment, these places have a significant impact on an individual’s mental health.” (Age group 25–45, F).

Theme 4: Environmental instability

The community complained about environmental issues such as waste on the street, air pollution, stray animals, sewage, polluted water, and electricity outages.

Some participants expressed issues with stray animals, which they categorized as animals without control that threaten community life.

“The dogs spread widely in a dangerous way.” (Age group 25–45, F).

Furthermore, most of the participants across the different age groups talked about problems with sewage and how to discharge this dirty water in a safe way for community health. Sewage water needs special systems to discharge it away from the people surrounding it.

“Sewage doesn’t get fixed immediately, it takes a long time in the street.” (Age group 13–24, M).

“The sewer problem is getting worse.” (Age group 25–45, F).

Furthermore, most of the females from the age group (13–25) complained about waste on the street, which causes environmental pollution. Several females said that there are no environmental health services for communities. The causes are a lack of waste containers and bad sewage, as well as insects.

The participants aged 46–65 emphasized some issues including sewage treatment, insects, and stray animals. Furthermore, female participants expressed a desire to improve and promote public hygiene.

“There is no waste container in the neighborhood.” (Age group 46–65, F).

In addition, the participants discussed some problems from water and electricity outages, and a female participant expressed that the street is not safe for walking and needs to be cleaned from waste.

“The walkway is unsafe for people and is riddled with car accidents.” (Age group over 65, F).

“The view of the neighborhood is dilapidated.” (Age group over 65, F).

Theme 5: Education/promotion programs for the community

The promotion program is all about making people aware of what they should eat and what is considered a junk food. The promotion is not for the elderly alone; it should include students and children. The failure to promote healthy food leads to obesity, which is considered a significant problem in the view of many participants. However, it was noticed that there was a lack of educational programs and awareness campaigns. This in turn creates uneducated and unhealthy people.

“If the schools are reconciled, the community will be reconciled.” (Age group 25–45, F).

Participants from the age group (13–24) mentioned that awareness about damages caused by smoking is not as

high as it should be. The consequences of smoking are not only physiological, but it also leads to social and spiritual instability. A few participants from the same age group mentioned that there is a need for mental health promotion, as it could be beneficial during this sensitive age period that a teenager passes through.

The need for education for elderly people on using the health application should take priority, as many cannot access the healthcare services that they need due to difficulties in using such applications.

The difference between Alzaidy's and Alhaji's communities

Data analysis helped to determine the main differences between Alzaidy's and Alhaji's Communities. Most participants from Alhaji complained about the availability of appointments at healthcare centers, lack of access to pharmaceutical services, and other healthcare services, and struggling with stray animals which could enter the houses and schools and attack children.

"There are many dogs, and they are becoming terrifying." (Age group 25–45, F).

In contrast, in Alzaidy Street, the participants highlighted the massive need for a healthcare center and emergency department.

"The mechanism of the health center changes from time to time. It provides services and suddenly turns into vaccinations or swabs, and where does the patient go to receive the service?" (Age group over 65, M).

The sanitary drainage in Alzaidy Street is a big problem for many respondents as they suffer from the waiting time to drain.

"There is no sewage supply, and we have had a year in this mess." (Age group 25–45, F).

The similarity between Alhaji and Alzaidy

The similarities found between Alhaji and Alzaidy includes the lack of gyms, places for a walk, public parks, and health promotion and education. These are significant needs for most of the participants in health, psychiatric, and psychosocial respects.

"There is no sports place for children." (Age group 0–12, F, Alhaji).

"Children had to rent to play in a far playground in another neighborhood." (Age group 25–45, F, Alzaidy).

The lack of healthy food is also a common problem in both neighborhoods, which shows the need for more education on nutrition.

"The food is not healthy at all." (Age group 0–12, F in Alhaji).

"Most people in the community do not follow a healthy diet." (Age group 13–24, M, Alzaidy).

DISCUSSION

CHNA is a process that involves community members to identify health needs within the communities. CHNA helps in prioritizing communities' health needs and making plans to address these unmet needs.^[9] To the best of our knowledge, only one study conducted the CHNA process to identify health problems and perceived health needs in the Jazan region, KSA.^[10] Therefore, this study aims to conduct a CHNA in two communities residing in Makkah City to gain a better understanding of their health needs and to evaluate and pilot test the process of conducting/implementing CHNA.

Several health needs were identified by recruited community members. These needs were classified into five main themes: access to physical activity; access to health-care services; healthy lifestyle; environmental instability; and education/promotion programs for community. Each theme has been discussed in the section below.

Theme 1: Access to physical activity

Community members indicated that communities lack recreation centers, such as gyms and public parks that support physical activities and increase their ability to be physically active. This finding is consistent with the other CHNA research conducted in Jazan, KSA that found lack of physical exercises and sports facilities was one of the health problems in the region.^[10] Furthermore, the lack of parks and recreation centers and limited places to exercise has been identified by other communities as major barriers to being physically active.^[11,12]

Theme 2: Access to healthcare services

Community members also indicated that communities may lack some healthcare services, such as unavailability of appointments and lack of specialty clinics, which may limit their ability to access and use healthcare services. Similarly, the study from Jazan found the shortage of healthcare services including specialty clinics and staff that was among the health problems raised by the key informants in the region.^[10] Several studies conducted in different communities have also identified similar findings. For instance, a CHNA carried out for Wake County, North Carolina, USA, to avoid duplication of efforts and to achieve a more comprehensive CHNA has identified healthcare access and utilization as one of the three priority areas that need to be addressed.^[13] Another study from the USA investigated the health needs of growing Latino communities in Norwood, Ohio, and found access to healthcare as one of the health needs for Latino communities.^[14]

Theme 3: Healthy lifestyle

Several needs related to healthy lifestyles were identified by community members that may limit their access to healthy

choices, such as healthy foods. This problem could be due to the poor food safety measures and food establishment that were reported as one of the health problems by key informants in the Jazan region.^[10] Furthermore, the study from Rayan-Gharra *et al.* found limited access to healthy food as one of the health concerns reported by Arab communities residing in Israel's northern periphery.^[11]

Theme 4: Environmental instability

Furthermore, several environmental health problems and needs were identified by community members. These needs include air and water pollution, walkability safety, and sewage disposal. In the same way, the lack of clean water supply and water sanitation systems was identified by key informants as an environmental health problem in Jazan.^[10] Similar findings have been reported in another study conducted in the USA where traffic issues have been found to affect individuals' ability to practice walking and being physically active.^[12]

Theme 5: Education/promotion programs for the community

Community members have also indicated a lack of awareness campaigns and health promotion programs as one of the needs that may limit their healthy life. Furthermore, the key informants from the Jazan region have identified a lack of awareness and poor promotion programs for the health needs of their communities.^[10] Similarly, a CHNA conducted in China found that limited access to health promotion activities, limited staff skilled in providing health promotion, and unawareness of health promotion were among the factors negatively affecting communities' health.^[7]

Limitations and strengths

The key strength of this research is that there are few studies that have conducted a CHNA in KSA; thus, it is the first study that officially measures the needs of the Makkah population. We collaborated with Makkah Health Cluster, which supplied us with a member who taught the researchers how to organize and manage focus groups. The Makkah Health Cluster also sent a letter outlining the aim of the interview, which aided the interviewers in gaining access to institutions and providing them with an understanding of the goal of the focus groups before they were held.

Taking notes and writing memos while conducting research enabled the researchers to stay involved in the content and abstract their thoughts to a higher level. Involving the community throughout the CHNA process also will improve both the healthcare system and the outlook of the people who live there. Healthcare practitioners and politicians may obtain a better grasp of their community's health concerns and needs by involving the community and patients, who, in

turn, feel that they have been listened to and included in the decision-making process.

However, some limitations were faced, such as difficulties in finding focusing group respondents in a specific age category (>65). To overcome this limitation, and with the support of a Makkah health cluster, we located respondents for this age group in clinics for the elderly provided in healthcare centers. This was still challenging, however, as while many would react, few agreed to participate.

CONCLUSION

Five themes have been developed after using several qualitative methods such as indexing and coding, constant and comparison, and creating a matrix. The themes were access to physical activity, access to healthcare services, a healthy lifestyle, environmental instability, and education/promotion programs. Providing a link between the community and the policymakers, as done in this study, will help to align needs and resources according to priorities and increase the quality of an individual's lifestyle by meeting their needs directly.

Authorities may need to make an effort to develop an effective strategic plan to address identified needs. The plan will guide the institution to maximize the utilization and reallocation of available resources based on identified areas. For example, establish strong partnerships and collaboration with other stakeholders, such as public health sectors, hospitals, and academic institutions, across the community at all levels. The partnership will facilitate the process of the CHNA during the collection of data, planning, and implementation phases. Training the healthcare workforce is crucial to increase their competencies, skills, and capacity building to undertake CHNA.

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Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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