Sociodemographic and Clinical Profile of Punto Esperanza Clinic: A Student-Run Free Urban Community Primary Care Clinic

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Abstract

Background: Access to primary care services in low-income rural and urban areas of Puerto Rico remains a significant public health challenge. Punto Esperanza Clinic (PEC) is a free primary care medical clinic in the urban area of Santurce, which is a densely populated, low-income area with a mixed local Puerto Rican and immigrant community. The present study aims to establish a sociodemographic and clinical profile of the patient population at PEC.

Methods: Sociodemographic and clinical data were collected from clinical interviews and surveys provided to participants over a two-year period from 2018 to 2020.

Results: The population (145) between ages 22-97 years that received medical care services at Punto Esperanza Clinic from January 2018 to March 2020, had a mean age of 60.6. In addition, 57.9% were males and 32.2% were single. The majority of participants received their income from government benefits (23.4%) and 90.1% lived in San Juan, PR. On the clinical aspect, the analysis based on reported medical conditions, categorized by body system, the leading cause of disease were cardiovascular disease (51.9%), this was followed by endocrine conditions (32%), psychiatric conditions (18.9%), gastrointestinal conditions (15%), respiratory conditions (11.3%), and immunological conditions (11.3%).

Conclusion: Given these results, more research is encouraged to examine current healthcare protocols and develop ways to provide better access to primary care in the vulnerable community around and near Santurce, San Juan, Puerto Rico in the future.

Keywords: Clinical profile • Sociodemographic profile • Urban community primary care • Medical services

Introduction

In Puerto Rico, access to primary care medical services remains a challenge in many low-income rural and urban areas [1]. In 2020, among Puerto Rico's population 44.1% live under the federal poverty line, which classifies Puerto Rico as having the highest poverty rate in the United States [2]. There has been an increased need for high-quality and accessible primary care services recently in Puerto Rico, especially after Hurricane Maria in 2017, which was the deadliest hurricane the United States has faced in the past century and left many without a home and in more poverty [3]. Chronic disease management and an increasing need for mental health services in the most vulnerable areas is a primary public health concern currently [4]. Puerto Rico has a diabetes prevalence of 16%, which is the highest age-adjusted prevalence among all US states and territories. Recent research also suggests an increased risk of cardiovascular disease, which further highlights the importance of having access to preventive and primary health care in vulnerable areas of Puerto Rico's population [4,5]. A recent survey in an urban setting in Puerto Rico cited the main barriers to healthcare access being a lack of health insurance, transportation, health professionals' shortage, social stigma, lack of knowledge, and economic resources [6]. However, the literature about the sociodemographic factors of populations at Federally Qualified Health Centers (FQHCs) in Puerto Rico is sparse. It is important to classify the sociodemographic and clinical characteristics of patients in Puerto Rico's most vulnerable areas to help improve health disparities by establishing benchmarks and threshold standards in the context of health status indicators and the social determinants of health.

Santurce is an urban borough of the capital of San Juan and one of the most densely populated areas on the island. The demographics of this area are primarily low-income local Puerto Rican families; however, it also includes a sizable immigrant population from the Dominican Republic, and a poorly studied but visible homeless population [7]. From a public health perspective, the unique socioeconomic and sociocultural demographics of the urban area of Santurce create a challenge in providing access to both primary medical care and establishing a continuity of care in this vulnerable community. There is a lack of research that quantifies and categorizes the sociodemographic variables of the patient population that seeks care at these free primary care health clinics that serve one of the highest need areas in Puerto Rico. Punto Esperanza Clinic (PEC) is a free health clinic partnered with the church Alianza Cristiana y Misionera and operated by students from San Juan Bautista School of Medicine (SJBSOM). This student-run clinic and under the guidance Faculty of SJBSOM, provides primary care services to the underserved and highly dense area of Santurce, San Juan, Puerto Rico. PEC aims to solve these problems by providing local, cost-effective primary care by health professional students who tend to collaborate with patients and discuss preventative care. The Punto Esperanza Clinic offers health services to an average of 25-30 people, once a month. However, there has been no study to date that characterizes the patients who receive care at PEC. Our study aims to describe the clinical and sociodemographic profile of the participants of Punto de Esperanza Clinic to better understand the needs of this population. These changes could bring a better quality of life and improve health outcomes.

Materials and Methods

Definition of study outcomes

Our study is a retrospective descriptive study, which describes the population that received medical care services at Punto Esperanza Clinic from January 2018 to March 2020 based on their sociodemographic and characteristics. The IRB of the San Juan Bautista School of Medicine

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(EMSJBIRB-20-2020) approved the study.

Participants and procedures

Data obtained voluntarily from participants 18 years or older via survey at Alianza Cristiana Misionera from January 2018 to March 2020 was matched with data collected at the clinic. The data collected at Punto Esperanza Clinic consisted of surveys and clinical information obtained from the electronic health record. The data from the clinical encounters were stored in a HIPAA compliant and free electronic health record Listrunner. The interview process was conducted in an appropriate setting to ensure privacy. The investigators explained the study's purpose to the patients. If the patient accepted to participate, he or she completed the consent form and the investigator conducted face-to-face structured interviews to complete the questionnaire.

Data analysis

Sample data was analyzed using descriptive statistics such as frequency, percent, and means. Descriptive statistics were used to describe the study population and variables of interest. Statistical analysis was performed using commercially available statistical software (e.g., Social Package for the Social Science, IBM; Stata, Excel).

Results

Results include data from a total of 145 participants who attended Punto Esperanza Clinic (PEC). San Juan was our participant's most common place of residence (90.1%). Our analysis of age frequency indicates that the group that makes up most of the subjects was that of 45-64 years old (51.7%), followed by the 65+ age group (35.9%), and finally the 20-44 years old group. The mean age of the participants was 60.6. Results show that many participants were male (57.9%) compared to female (40%). Analysis revealed that 32.4% of participants were single or has never married while 3.4% of participants were married or cohabitated with a partner. In terms of family unit, 40 participants (27.6%) reported that they lived alone, and 41 participants (28.3%) reported that they lived with one or more family members. With regards to the source of income, most participants received their income from government benefits (23.4%), followed by 6.2% who did not receive an income, and the smallest group was one that received their income from a job (2.1%) (Table 1). In the analysis based on reported medical conditions, categorized by body system, the leading cause of disease was cardiovascular disease (51.9%), followed by endocrine conditions (32%), psychiatric conditions (18.9%), gastrointestinal conditions (15%), respiratory conditions (11.3%), and immunological conditions (11.3%). Table 2 presents the distribution based on medical conditions categorized by systems (Table 2).

Table 1. Demographics of participants based on the following five demographic variables: age, sex, marital status, family composition and source of income (N=145).

Characteristics	Frequency	Percentage
Age		
20-44	14	9.7
45-64	75	51.7
65+	52	35.9
Sex		
Female	58	40
Male	84	57.9
Marital status		
Married/Cohabitating	5	3.4
Never married/ Single	47	32.4
Immediate family composition		
Lives alone	40	27.6
Lives with one or more family members	41	28.3
Source of income		
Job	3	2.1
Government Benefits	34	23.4
None	9	6.2

Table 2. Distribution based on medical conditions categorized by systems (N=145).

Medical condition	Frequency	Percentage
Cardiovascular	55	51.9
Endocrine	34	32
Psychiatric	20	18.9
Gastrointestinal	16	15
Respiratory	12	11.3
Immunological	12	11.3

Discussion

The lack of descriptive data on our patient's health prevents the establishment of adequate disease prevention programs for the provision of services to the patient [8]. It is important to classify the sociodemographic and clinical characteristics of patients in the most vulnerable areas of Puerto Rico to help improve health disparities. This study reflects that the population that receives medical services at the Punto Esperanza Clinic resides entirely in San Juan (90.1%), has an average age of 60.6 years, the majority are men (57.9%), and single (32.2%). In addition, most of the participants received their income from government benefits (23.4%). Also, based on reported medical conditions, classified by body system, the leading cause of disease was cardiovascular disease (51.9%), followed by endocrine conditions (32%).

Our study results show the mean age of the participants was 60.6. In Puerto Rico, during the last decades, one of the groups with the highest population growth is people aged 60 years and over [9]. As the risk of chronic diseases increases with age, the demand for health and other support services will increase as the population ages. Given the increase in the population of adults over 60 years of age in Puerto Rico, it is recommended that efforts be increased to develop public policies aimed at promoting health in older adults; so that they can achieve continuous integrated health services.

From our study population, 23.4% received their income from government benefits. These data are consistent with the Ombudsman for the Elderly of Puerto Rico, where it is estimated that 39.9 percent of the population 65 and older lived at or below the federal poverty level (FPL) with Social Security (80.2%) and the Nutrition Assistance Program (NAP; 40.9%) as their main sources of income [10]. The current health situation in Puerto Rico is due to the fact that health costs are high and poverty rates are increasing [11]. Therefore, it is increasingly common for the population to visit free health clinics to address their health problems.

In our study, analyzing the population that used the free medical services of our Punto Esperanza Clinic, we found that most of the patients who visited the clinic were male (57.9%) and single (32.2%). According to the World Health Organization (WHO), men use fewer health care services than women [12]. Furthermore, according to cross-census statistics from around the world, just over a third (38%) of households is made up of parents and children of any age [13]. These differences can be attributed to the type of population served at the Punto Esperanza Clinic and its location.

The Punto Esperanza Clinic is in Santurce, San Juan, Puerto Rico, a primarily low-income area. According to the last estimate of the homeless population, San Juan (26.2%) was one of the municipalities with the highest incidence of homeless people. They also report that many homeless people are men (76%). Additionally, the reasons for being homeless were: (30.6%) substance use (6.4% alcohol use), 23% family problems, 15% financial or economic problems, 5.6% mental health problems, 5.2% unemployment. and 3.3% for gender violence, among others [14]. In summary, our population at the Punto Esperanza Clinic is a low-income population, from San Juan, mostly without health insurance, over 60 years old, mostly men, without a family support network, dependent on government aid, and with various health problems.

According to the medical conditions reported by the patients treated at the Punto Esperanza Clinic, classified by body system, the main cause

of disease was cardiovascular disease (51.9%). Heart disease continues to be the leading cause of death in Puerto Rico. However, most of our population are men and report some type of cardiovascular disease, in the clinic; we have established mini campaigns on different topics related to the care of cardiovascular diseases. Men's health should be the subject of educational programs at the government level. Differences in men's health show that there are sociocultural factors, inherent to gender, which generate inequalities and inequities in health.

According to the medical conditions reported by the patients treated at the Punto Esperanza Clinic, classified by body system, the second reported cause was endocrine conditions (32%). Among the endocrine conditions in Puerto Rico, the most common is diabetes. According to the 2017 Behavioral Risk Factor Surveillance System (BRFSS), 17.2 percent of people in Puerto Rico reported that a doctor had told them they had diabetes, compared to 10.5 percent of people in all the US states. The population of PEC is very particular, most of them live on government aid, and some are homeless or live alone. Others are older than 60 years and find it difficult to buy food for a healthy diet, because of its high cost. People over 60 had to decide between buying their medicine or healthy food due to the low income they receive. As part of initiatives in PEC, students prepare short presentations on common health conditions, prevention, management, and how to identify them. Information and educational material are presented to the patients as they are waiting to be interviewed. In the same manner, patients are encouraged to continue regular visits with their primary doctor and counsel during the interview.

This study has several limitations. Due to the transitory nature of our population, some patients are unable to attend the clinic monthly; consequently, there are missing values in several of the variables of interest and on some occasions the follow-up is lost. Our sample size of 145 patients throughout a 2-year period seems to give us enough data and longevity to make accurate claims about the clinical profile of the PEC patient population. The quality of the data obtained is flawed since the majority is self-reported by PEC patients. However, future research should aim to limit the number of missing values. We also suggest that following studies emphasize the health and nutritional status of the homelessness population in this area.

Conclusion

There is a significant population of vulnerable patients in Puerto Rico. Health care options for these patients are limited and the Punto Esperanza Clinic can serve as one of their health alternatives. Given these results, we deem it appropriate to increase the efforts to assess clinical and social needs in this population to better link our patients with the right resources for them. Through this study, we observed the most common sociodemographic determinants and health conditions PEC patients present with this information is instrumental for the improved efforts on effective health education and resource connection to increase patient knowledge about their health conditions.

In conclusion from a public health perspective, the present study highlights the increasing need for quality primary care services in Santurce, San Juan, Puerto Rico and similar areas on the Island. Research should also consider patient satisfaction scores at PEC and knowledge about their conditions to leverage better healthcare outcomes in this community.

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Author's Contribution

Grisel Burgos-Barreto and Edison Martinez participated in the study design and acquisition of data. Grisel Burgos-Barreto, Edison Martinez-Monegro, and German Garcia participated in the revision of the data, data analysis and drafted the manuscript. All authors read and approved the final draft of this manuscript.

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