LUMEN ET VIRTUS

Seeing, hearing, feeling and acting: Brazil and the SUS from the perspective of medical students

https://doi.org/10.56238/levv15n40-052

Lisa Ananda Rodrigues Soares[1], Davi Mendes Luna, Iana Dayse Nogueira Gualerto, Julia Leone Leite Morais Silva, Marcela Vasconcelos Montenegro, Rodrigo Carneiro de Farias Evangelista, Victory de Ataide Caliari and Maria da Neves Dantas da Silveira Barros

ABSTRACT

Despite the progress in primary care coverage, the Unified Health System faces the challenges of guaranteeing health care in a country of continental dimensions marked by significant social inequality. Based on the above, medical students carried out a qualitative study that aimed to broaden the view of primary care and the practice of semiology in a different scenario from that experienced in Brazilian medical schools, expanding the horizons of medical education to other social realities. Three families from the municipality of São Benedito do Sul, recognized for having a low human development index and being an endemic area for neglected diseases, were randomly selected. Sociodemographic and clinical data were obtained through anamnesis, physical examination, capillary glucose collection and electrocardiogram, the latter for screening for Chagas disease. Future doctors were able to see, hear and feel the reality of a portion of the population that is on the margins of public policies. The need to reformulate the medical curriculum to deal with this reality was evidenced, based on the teaching of the values of clinical examination and alternative medicine based on the use of natural resources to modify this situation.

Keywords: Health Systems, Collective Health, Primary Care, Complementary Medicine, Socioeconomic Factors.

[1] Faculty of Medical Sciences, University of Pernambuco

INTRODUCTION

In the face of the devastating socioeconomic situation of the 1980s, several movements highlighted the need to look at the human being in its entirety. In this scenario, the Health Reform emerged in Brazil, through comprehensive action to health and not only to care care, which became ensured by the Federal Constitution of 1988, through Law 8.080, of 19901. The welfare model, previously intended for a small portion of Social Security contributors, was replaced by one of the largest and most complex public health systems in the world: the Unified Health System (SUS). Meanwhile, the world scenario also turned to the indivisibility of the being as a member of a community, which can be evidenced in the International Conference on Primary Health Care in Alma Ata, in 1978 and, decades later, ratified in the sustainable development proposed by the World Health Organization through the 2030 Agenda2, 3.

However, public initiatives aimed at health coverage are still permeated by stigmas. As a result of this, it was found that, in 2019, among SUS users, 64.7% had a per capita household income of less than 1 minimum wage and 32.4% were in the range of 1 to 3 minimum wages at the time4. This population, exposed to the most diverse forms of vulnerability, needs social assistance focused on objective and subjective issues, which are not always guaranteed, although guaranteed by law5, 6. The Family Health Strategies (FHS) gradually achieved greater coverage of Primary Health Care, which represented an increase from 50.9% in 2008 to 53.4% in 20137. However, in a continental and heterogeneous country, care occurs differently, depending on the regions, so that there is a greater deficit in territories in more unfavorable situations and isolated from urban centers8.

The relationship between socioeconomic conditions and access to health care in poor Brazilian areas remains a dilemma to be explored, especially with regard to food security, quality of life, and family planning, a fact that requires a greater analysis of the reality experienced by this population. In order to better clarify this scenario, which is very little scientifically addressed, and to exercise the power of clinical examination and intervention focused on the local reality, medical students from the University of Pernambuco sought to broaden their view of primary care in a municipality in the state, São Benedito do Sul, considered to have a low human development index (HDI) and being recognized as an endemic area of neglected diseases.

METHODS

The idealization of the study began with an extension project of the Faculty of Medical Sciences of the University of Pernambuco, which aimed to carry out medical

consultations with some families in a municipality considered to be in need in the state of Pernambuco. The municipality of São Benedito do Sul was chosen because it has a low human development index, because it is recognized by the state of Pernambuco as a vulnerable municipality, which is home to part of the rural endemic diseases, and because it is a place previously visited by the project's advisor in the active search for patients with Chagas disease9. The vulnerability of the municipality, composed of 16,069 inhabitants10, of which 48.66% live in rural areas, can be seen in data from the SNIS (National Sanitation Information System), according to which of the total population of the municipality, 55.68% do not have water supply. That is, 44.32% of the total population of São Benedito do Sul has access to water supply services, while the average for the state of Pernambuco is 81.68% and for Brazil it is 83.96%.

A community health agent in the municipality was instructed to select ten families that she considered most vulnerable. Of the ten families, three were randomly selected to be visited, in one day, by a group of twelve medical students, distributed between the fourth and ninth semesters of the undergraduate course, and a professor of Semiology at the institution, a cardiologist (Figure 1). The number of families selected to receive the visit was limited due to the difficulty of access to the residences, located in a mountain range and far from the local district. Each student received a kit to be used during the visits: official project shirt; files of interest for the clinical examination on site, as well as information on the local endemics and a booklet to record the data obtained (Figure 2).

Figure 1 – Group responsible for carrying out the visits.

Source: Own collection.

Figure 2 – Kit distributed to the participants of the experiment.

Source: Own collection.

The experience involved the sequential performance of the clinical examination with a well-directed look at the local reality, exercising the power of detailed listening (figure 3). For each family, the number of inhabitants of the household, housing conditions, family income, as well as the content of daily food, schooling, weight, height, physical examination of the systems, capillary glucose and electrocardiogram (ECG) of each member were recorded on a form. The ECG was included as a screening for Chagas heart disease, as previously planned in the mentor's project for this experience.

Figure 3 – One of the selected residences receiving the team.

Source: Own collection.

Thus, we sought to qualitatively analyze socioeconomic conditions, evaluate objective and subjective data associated with health, economy and socialization, including themes such as food security, quality of access to medical services and family planning.

Next, an analysis of the literature was carried out regarding relevant themes found in the field, and the association of these data with the reality found by the students, who were witnesses of the situation of vulnerability of the population studied.

RESULTS

The group was an eyewitness to a reality marked by socioeconomic inequality, especially with regard to health care, access to education, food security, family planning, and housing infrastructure (figure 4). In addition, a discrepancy in the focus of medical education focused on the hospital-centered model in contrast to the basic, economically viable and necessary issues to guarantee the minimum health to a completely unprotected population was evidenced.

Figure 4 – Representation of the absence of local housing infrastructure.

Source: Own collection.

The visits showed a scenario of lack of democratization of access to health, and it is important to consider certain variables when evaluating this context. The families lived in a rural environment, very far from the local district, where there were no health units to carry out periodic monitoring of their clinical condition. On the other hand, although there was no close access to Primary Care units, there was the presence of ambulances to transport them to more specialized centers, which reinforces the presence of a hospital-centered model. Thus, the care provided by a Community Health Agent (CHA) was, in an almost absolute percentage of the cases, the greatest reference for care received. Public referral hospitals were also far from the city and, in order to access more complex services, it was

necessary to travel for hours or even go to the capital to receive more specific treatments, which became an obstacle to the entry of this population into these services.

From this, it is possible to notice a disparity between precepts formalized by the SUS and what is put into practice by the responsible bodies, which should ensure comprehensive, universal and equitable health care. This fact is confirmed by observing data from the 1998 National Household Sample Survey, according to which 15% of the population did not have real access to the SUS due to the scarcity of services in their neighborhood, of resources to pay for transportation, the slowness of waiting lines for care, or even the insufficient number of medical professionals11.

The analysis of the data obtained in the visits provided information on infrastructure, highlighting the fact that none of the three households visited had a bathroom, only one toilet outside the residence. The average number of rooms per household was four, all with two bedrooms, a kitchen and a living room. None of the residences had a water supply through a general distribution network. In addition, among the families visited, the use of wood stoves predominated and all households had access to electricity.

This context of poverty can be objectively analyzed by considering factors such as monthly income and dietary pattern. The daily food consumption in all the families visited was of processed foods, such as mortadella and sausage, combined with couscous, in the three food meals, commonly called "Quarenta". It is observed that this food combination and the lack of variety in its content is in disagreement with the daily recommendations for an individual according to the Food Guide for the Brazilian Population12. Despite the availability of bananas in some households, their consumption was restricted to the absence of the usual foods mentioned above. The reports also include the consumption of powdered juice and soft drinks, as well as rice, beans and chicken for lunch sporadically, when there was work that increased the family income.

The reasons for such a dietary practice involve its low cost and the lack of knowledge about nutrients and benefits linked to different types of food. The guidelines given to the families, therefore, involved restricting the consumption of ultra-processed foods and the use of products obtained from planting available on their lands.

The concept of food security was born in the 70s. Its evolution, up to the current definition, included different economic and sociocultural variables. According to the Food and Agriculture Organization of the United Nations (FAO), in a definition established at the World Food Conference (WCC) in Rome in 1996, food security occurs when all people have permanent physical, social and economic access to safe, nutritious food in sufficient quantity to satisfy their nutritional needs and food preferences, thus having an active and

healthy life. According to the 2013 National Household Sample Survey (PNAD), in Brazil, 22.6% of the population lives in a situation of Food and Nutrition Insecurity (FNI). There is, therefore, difficulty in accessing adequate food, mainly due to low income. The Northeastern panorama is even more aggravating, since, according to the same survey, the Northeast is the leader in population in the state of FNI, with a share of 38.1% of the population13.

Regarding the fertility rate, a high number of children and, consequently, family members were observed. The number of children ranged from 4 to 714. As a result, a large number of people were divided into houses with a low number of rooms and insufficient structure. Such facts are essential for a greater understanding of the integral state of communities, since it becomes difficult to raise children in precarious situations.

In a more detailed analysis of the Brazilian fertility rate, it is notorious that there are some variables, such as the urban or rural context of the population, given the difference in the average number of children per woman and in the number of members per family between these realities. In 2017/18, the average size of the urban family in Brazil was three individuals, while in the rural family, the number increased to 3,214.

From the experience obtained during the project, the medical students were able to see, hear and feel up close what the reality of many Brazilians who live in distance from health centers is like. Such individuals verge on oblivion and suffer consequences in various areas, from the sanitary to the food aspect. Thus, the students concluded that it is their role, as future doctors, to accommodate these families at the center of care, redistributing care totally directed to large hospital centers and turning care to basic, efficient and effective health care. The reflection of this segregational pattern is already seen in the data presented in the literature, such as those mentioned above, with no lack of arguments to ensure the need to expand medical care beyond large urban centers.

Some testimonies of the students who lived this experience faithfully reveal its relevance. "Having had the opportunity to see the reality of Brazil up close and see the importance of the SUS for the Brazilian people brings a new perspective to my medical practice."; "Expanding my social vision, going beyond the hospital-centric perspective that often limits the thinking of medical students, through the experience in the practice of neglected communities was, without a doubt, a very important gain to my professional and, above all, human training."; "From this experience, I was able to get to know a different reality in our country and understand the importance of fighting for a medicine that has capillarity with our population and that is not limited to a hospital-centric approach to health."**; "**The experience was, to say the least, unique, shocking and realistic. We know

the conditions of many Brazilian "interiors" through statistical data, but seeing up close the conditions of such a vulnerable and needy population, still in graduation, is rare within the courses of large cities, such as the one where our teaching hospital is located. Many patients come from far away, but our assistance hardly reaches them. This reality is reflected in a dichotomy, in what the people we visit need to do to be healthy and what they are really able to do. This experience broadened our vision of the concept of Health Care, and made us reflect on the Medicine we must exercise: more universal, integral and decentralized."; " From this experience, I was able to observe a completely different reality, a Brazil often forgotten by us. It was incredible to be able to experience this cut in the daily life of a vulnerable population and I am sure it enriched my training as a person and health professional in the future."; " Getting in touch with the reality of the interior of the Brazilian Northeast was enriching in my journey in medicine. Being able to help, even if in a simple way, through conversations, clarifications, advice and assistance, was unique. There is, however, more to be done."

DISCUSSION

It is worthy, therefore, to propose a reformulation of medical education and the creation of practice fields for medical students that are capable of showing the reality of the Brazilian population and, thus, reviewing the role of the SUS. The teaching model is still aimed at treating diseases and high-cost prescriptions. Even if based on the greatest evidence, it is evident that the available resources must be resized so as not to get sick and the preventive model the one with the greatest scope. Healthy food alternatives should be a major priority intervention in this continental country full of social diversity. Various alternative dietary practices should be introduced and taught on an ongoing basis to populations without access to safe food. Among them, we can mention the production of biomass, which has bananas as its main composition, a food that is very present in the daily lives of these families and that is often wasted. In addition, stimulating the consumption of Non-Conventional Food Plants (PANCS) is also presented as an alternative to be implemented.

The biomass is obtained from the pulp of unripe bananas, forming a flavorless paste that can be used in a wide variety of dishes. In addition to generating an increase in the volume of food to be consumed, ensuring greater satiety, it also incorporates fiber, minerals and vitamins to meals. Biomass has no restrictions on its use and its obtaining is simple and fast, requiring only washing the fruit, cooking, crushing and extrusion, being totally feasible. When not used immediately, it can still be chilled in the refrigerator for eight days

or frozen for up to four months without losing its beneficial effects15. Among its benefits, we can highlight the starch that resists the digestion of green bananas, making them a functional food, a concept defined by the National Health Surveillance Agency (ANVISA) as a food or ingredient that, in addition to containing basic nutritional functions, triggers beneficial effects on health and is safe for consumption without medical supervision. The large amount of short-chain fatty acid produced in the large intestine from the fermentation of starch serves as nutrients for the colon microbiota, inhibiting the growth of cancer cells by reducing local PH. In addition, starch also acts by increasing the fecal bolus, preventing diverticulitis, hemorrhoids and diluting toxic compounds. Another advantage of using biomass involves the consumption of dietary fiber and starch, which are important contributors to the reduction of the glycemic index of foods and, consequently, to the reduction of the insulin response, helping with type 2 diabetes. This benefit is essential in the context of the overuse of foods with a high glycemic load in the context of neglected regions, reducing the risk of cardiovascular diseases and contributing to the reduction of body mass index (BMI) and obesity16, 17.

Another feasible feeding practice is the insertion of Non-Conventional Food Plants (PANCS) in meals. The term PANC was created in Brazil by professor and biologist Valdely Ferreira Kinupp, in 2008, being internationally known as Neglected and Underutilized *Species* (NUS). In this sense, they refer to numerous plant species that are known, have several nutritional benefits, but are not part of the daily diet, arising with the purpose of increasing the variety of vegetables consumed by individuals. Regarding cultivation in the Northeast, we can highlight the yam, already popularized, the red passion fruit, the papaya foot cactus and the northern mint. Thus, the promotion of PANCS, in addition to presenting a possibility to improve food security, can also stimulate cultivation by local producers, increasing income and boosting local development in regions farther from the centers18.

FINAL CONSIDERATIONS

It is worth mentioning that the present experience has some limitations, such as the restricted number of families visited, but the common report among the families about food and assistance in the governmental sphere were essential for a reflection on how unequal Brazil is, marked by relegated health and precarious access. The families were unanimous about the difficulty of medical care, the lack of access to prescribed medications, and the lack of information on an alternative diet, demonstrating that the role of the SUS has not been played by those who compose it.

Thus, it becomes clear that there is a need to establish the composition of a family and community medicine team with well-established and contextualized care goals and strategies for each region, seeking immediate alternatives to improve food and sanitary conditions.

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