



Healthcare Beliefs and Practices of the deaf from Antioquia

Creencias y prácticas para el cuidado de la salud de las personas sordas de Antioquia

Crenças e práticas para a atenção à saúde de pessoas surdas em Antioquia

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Abstract

Objective: To describe the beliefs and practices for health care of deaf people in Antioquia, in order to identify health education needs of this population. **Methods:** qualitative study with ethnographic techniques framed in a participatory action research; 22 semi-structured interviews and 4 focus groups were conducted with deaf people, in meetings mediated by an official interpreter of the Colombian Sign Language, of which video and audio were recorded for later transcription and analysis. **Results:** Complaints related to the language barrier that prevents them from knowing about health care emerged;

beliefs and practices acquired at home and with peers about sexual and reproductive health, mental health, and lifestyles. The participants expressed concerns about care, health and illness that have not been addressed clearly and in their own language. **Conclusions:** Deaf people demand quality health care education under a differential approach, which will contribute to their autonomy, self-determination and the effective enjoyment of the right to health.

-----**Keywords:** Deafness, Education of Hearing Disabled, Culturally Competent Care, health promotion, right to health.

Resumen

Objetivo: Describir las creencias y prácticas para el cuidado de la salud de personas sordas de Antioquia, con el fin de identificar necesidades en educación para la salud de esta población. **Metodología:** estudio cualitativo, con técnicas etnográficas, enmarcado en una investigación acción participación. Se condujeron 24 entrevistas semiestructuradas y 4 grupos focales con personas sordas, en encuentros mediados por un intérprete oficial de la lengua de señas colombiana, de los que se registró video y audio, para su posterior transcripción y análisis. **Resultados:** Emergieron denuncias relacionadas con la barrera lingüística que les impide conocer sobre el cuidado de la salud; también surgieron creencias y

prácticas adquiridas en el hogar y con pares acerca la salud sexual y reproductiva, la salud mental y los estilos de vida. Los participantes manifestaron inquietudes y preocupaciones sobre el cuidado, la salud y la enfermedad, que no han sido abordadas con claridad y en su propia lengua. Conclusiones: Las personas sordas reclaman educación para el cuidado de la salud, de calidad y bajo un enfoque diferencial, que contribuya a su autonomía, autodeterminación y al goce efectivo del derecho a la salud.

-----**Palabras clave:** asistencia sanitaria culturalmente competente, derecho a la salud, educación de personas con discapacidad auditiva, promoción de la salud, sordera.

Resumo

Objetivo: Descrever as crenças e práticas de atenção à saúde de pessoas surdas em Antioquia, a fim de identificar as necessidades de educação em saúde dessa população. **Métodos:** estudo qualitativo com técnicas etnográficas, enquadrado numa pesquisa-ação participante; Foram realizadas 22 entrevistas semiestructuradas e 4 grupos focais com pessoas surdas, em encontros mediados por um intérprete oficial da Língua de Sinais Colombiana, dos quais foram gravados vídeo e áudio para posterior transcrição e análise. **Resultados:** Emergiram queixas relacionadas à barreira da língua que os impede de saber sobre os cuidados de saúde;

crenças e práticas adquiridas em casa e com colegas sobre saúde sexual e reprodutiva, saúde mental e estilos de vida. Os participantes expressaram preocupações e preocupações sobre cuidados, saúde e doença que não foram abordadas de forma clara e em sua própria linguagem. **Conclusões:** Os surdos demandam uma educação em saúde de qualidade sob um enfoque diferenciador, que contribua para sua autonomia, autodeterminação e gozo efetivo do direito à saúde.

-----**Palavras chaves:** Surdez, Educação de Pessoas com Deficiência Auditiva, Assistência à Saúde Culturalmente Competente, Promoção da Saúde, Direito à Saúde.

Introduction

According to the World Health Organization, in the world, 466-million people have hearing loss and 34-million of these are boys and girls, projecting by 2050 a figure of 900-million people with a hearing condition, of which 1.1-billion are in high-risk groups [1]. In Colombia, the Situation Room for People with Disability, led by the Ministry of Health and Social Protection,* reports that 1,448,889 people live with disability, of which 5% have hearing impairment [2].

Sociocultural conditions and linguistic identity, added to elements related with accessibility to health systems, restrict participation by people with hearing impairment, who face numerous barriers of access to information, even violation of the right to health, resulting in avoidable health-disease processes or of greater complexity. The Colombian health system does not have a clear communication policy for patients belonging to linguistic minorities, and health services providers still

do not have health professionals skilled in Colombian sign language (CSL), nor guarantee interpretation services during care; thereby, the deaf experience situations of exclusion in the system [3].

That experience by the signing deaf community in the Colombian health system is merely a reflection of the structural gap that permeates all sectors of society and keeps this community out of aspects that are only communicated in Spanish. In this regard, it is necessary to point out that the basic education of the deaf is in CSL and their second language is Spanish, whose scope as far as literacy training is concerned is limited [4,5]. Hence, the deaf must overcome the language barrier to understand law and order information, like rights, norms, commercial issues, job-related, health, among others, where the only reasonable adjustment is linguistic mediation from an interpreter of CSL.

Within the conceptual framework of human needs by Max Neef, the need for information for one's care not only becomes a need for understanding [6], historically unsatisfied in our country's deaf community—due to barriers to access inclusive education—, but is also closely linked with the needs for protection and subsis-

* It is an official sociodemographic bulletin and characteristics of functioning of people with disabilities in Colombia.

tence, given that knowledge related with health provide greater awareness and autonomy to make decisions that allow a good living.

Knowledge and information related with the health-disease process have been explored and developed vastly by diverse disciplines and social circles, and have been legitimized by Western, positivist and morbi-centric thought, in whose scenario knowledge and cultural practices in health from other origins lack social validity and relevance [7]. Within this logic, information backed by science, and which seeks to maintain and protect health, should be reproduced systematically to reach all people for their benefit, without any type of discrimination. However, in the Colombian context, the population's healthcare education is not accessible and is not implemented according with the diversity of its citizens, resulting in not understanding needs related to protection, freedom, and subsistence [6]. Although Colombia has advanced in incorporating the CSL interpreter in some communication media, this reasonable adjustment has not spread to communication settings of information about health, nor is it guaranteed in the activities of health promotion, disease prevention or during healthcare.

Initiatives and strategies have been disseminated throughout the world to close the communication gap between the deaf population and the hearing population, to improve their access to health services; thus, to improve their health conditions; but health training of the deaf community is still scarce. Studies have reported that deaf communities receive insufficient interpretation services in the health setting, which leads to errors in the medical praxis and in the persistence of unmet health needs for said community [8-11]. Communicative incompatibility among the health staff, customer service personnel, and the health system's complexity limit timely diagnosis, adherence to treatments, individual and collective interventions [12], including activities for health promotion and disease prevention, panorama that demands attention from rights and differential approaches [13,14], which constitute a transversal axis of the approach to Public Health policies and programs in Colombia [15].

Due to the aforementioned, it is necessary to describe the healthcare beliefs and practices of the deaf population from Antioquia, which permit identifying health education needs and, consequently, guide the design of strategies aimed at enhancing the capacities of this population for their healthcare.

Methods

Qualitative study, with ethnographic techniques, which explored healthcare beliefs and practices of the deaf from Antioquia during 2022, to identify their health education needs.

This research was framed within the social critical paradigm [16], from recognizing the conditions of systematic exclusion and infringement of the deaf in the context of Antioquia, whose experiences provide to comprehending their needs and to the formulation of pertinent solutions coherent with their cultural and linguistic identities [17].

This study is the first phase of a framework project in which a training program for community health promoters will be designed for the deaf population of Antioquia, on action research methodological logic participation [18].

The research team was comprised by two physical therapists and a physician, all with graduate formation in Public Health, and university professors involved in research with deaf population at regional and national levels.

Call for participants

The selection of participants used a sampling of typical cases, that is, the study selected those deaf people, of legal age and residents in the department of Antioquia, who could contribute the most information with the greatest detail, depth and quality, according to their experiences, to achieving the study objectives [19].

Given the foregoing, leaders of the deaf community from municipalities of the east, northwest, and southwest of Antioquia and Valle de Aburrá were summoned, through the Antioquia Association of the Deaf, whose director assumed the role of gatekeeper in the relationship with the deaf community from the department.

A video was disseminated through these actors with the invitation to participate in the research and a virtual registration form, for those interested in participating, who would later be contacted by the research team.

Collection techniques

Four focus groups with a maximum of five participants per meeting were held, programmed according to the availability of the people, and 24 semi-structured interviews, with deaf people, between March and September 2022, inquiring about the healthcare knowledge and practices by the deaf.

Initially, open questions were made, inquiring about the healthcare beliefs and practices by life course, and to close each focus group, the participants' interests in health education were explored. Both collection guides contained the following questions: How do you care for your health? What do you know about healthcare during childhood, adolescence, youth, adulthood and older adulthood? What have you learnt about disease prevention? Where have you learnt or obtained information about healthcare? What topics of healthcare do you consider important for the deaf population to learn?

In all the activities in which deaf people participated, there was an official CSL interpreter, who assumed the function of communication mediator between research team and the participants. For the focus groups, there were two interpreters, and for the interviews, one, who participated in all the meetings. Both interpreters had several years of experience in CSL interpretation in the health context.

The information collection meetings (focus groups and interviews) were video recorded, for subsequent literal transcription by personnel hired for this purpose, whose text constituted the main input for the analysis, that is, that is, the CSL story was retranslated into spoken Spanish and, finally, into written Spanish.

During the field work and in later stages, efforts were made to achieve the quality of all the records (video, audio, and text) and the translation process of the stories, to guarantee the auditability and credibility of the research [20].

Analysis plan

The analytical process began with an initial exploration of the transcriptions of the focus groups and interviews, through individual reading of the texts by the research team. Subsequently, data reduction and transformation was carried out, through the following three moments [21]:

Segmentation, encoding, and grouping in descriptive categories.

Configuration of a system thematic nuclei.

Data interpretation in light of the reference frameworks chosen for the research.

This procedure was conducted in ATLAS.ti Scientific Software Development GmbH, version 9 for Windows, licensed to Universidad CES.

During the development of this study, the criteria of methodological rigor in qualitative research were applied., according to Morse *et al.*, [20] to guarantee the credibility and transferability of the findings, and the auditability of the research process.

Ethical criteria

All the activities framed in the present research were carried out under the ethical principles established in the Declaration of Helsinki by the World Medical Association [22] and in the “International ethical guidelines for research related to health with human beings” [23].

The individuals summoned in the study accepted participation through signed consent, which was explained in CSL through a video, delivered via E-mail to the interested parties, prior to the meeting with the research team, a space in which information about the project was expanded and doubts about it were resolved.

In compliance with the principle of confidentiality, participants were assigned an alphanumeric code that

identified and differentiated them during the registration process and information analysis.

According to Resolution 8430 of 4 October 1993 [24], this study was classified as minimum-risk research, for which measures of psychosocial support were defined for the participants in the event of presenting psychological or emotional discomfort during or derived from participating in the project.

Obtained approval from the Human Research Ethics Committee from Universidad CES, through minute # 166 of 22 July 2021.

Results

The participants were 44 deaf people from Antioquia, of which 56.82% were women, with mean age of 38 years (interquartile range: 33-47); the youngest person was 23 years old and the oldest was 66 years old; 70.45% resided in urban area, 38.64% of the participants lived in stratum 3, followed by stratum 2, with 22.73%. Regarding level of schooling, 22.7% had technological formation, 18.18% had technical training, 13.64% were in high school (Table 1).

During analysis, a system of categories emerged, made up of a core category called “Access to healthcare information”, which links knowledge and practices in sexual and reproductive health, mental health and lifestyles, which had the maximum theoretical saturation (Figure 1).

Access to healthcare information

I feel this health training is very important, but if they are talking all the time, I won't understand EP10[†]

Linguistic barriers and the traditional strategies used to communicate information related with health become the principal causes of misinformation reported by the deaf.

They should be explained that we have a different learning method than those who can hear. Those who can hear have more access to information and deaf individuals almost don't; so, there must be a different method to explain this topic to the deaf (EP2).

Communication of information about health promotion and disease prevention, according to the study participants, is reproduced mostly through orality, a mechanism that excludes the deaf who do not use Spanish. Furthermore, they have identified that there is no willingness to make reasonable adjustments, such as hiring a CSL interpreter, possibly due to the cost represented by said adjustment.

[†] Participant code, to protect their identity.

Table 1. Participants' sociodemographic characteristics

Sociodemographic variables		n = 44	Percentage (%)
Sex	Female	25	56.82
	Male	19	43.18
Economic level	1	7	15.91
	2	10	22.73
	3	17	38.64
	4	6	13.64
	5	4	9.09
Zone of residence	Urban	31	70.45
	Rural	13	29.55
Schooling	Incomplete primary	3	6.82
	Complete primary	5	11.36
	Incomplete high school	12	27.27
	High School	6	13.64
	Technical	8	18.18
	Technological	10	22.73
	Professional	0	0

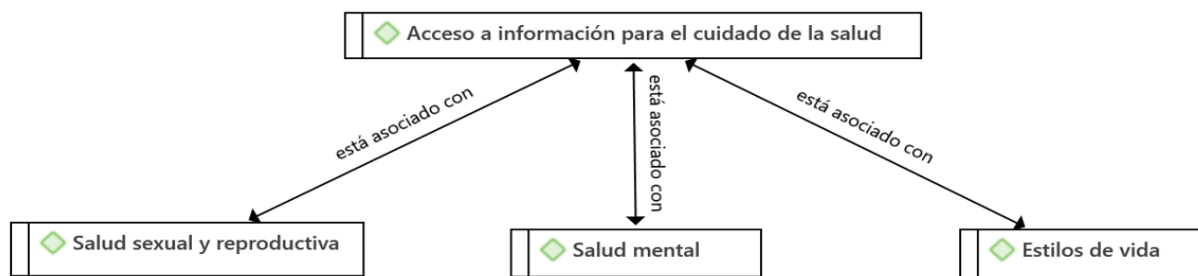


Figure 1. System of categories.

Note: The figure retains its native language

[...] they can get an interpreter, even if it is virtual, or get many images for me to see what it is they are doing, because the slides are all in Spanish and I don't read Spanish ... or bring a sign language interpreter, and they: "no, there is no money; an interpreter is very costly and can't be brought" (EP8).

The development of informative and educational activities in health in different environments, including health services and work, according to study participants, is planned only for those who can hear. The call to participate is through the written Spanish language and is taught orally, which generates exclusion of the deaf,

who communicate, understand and comprehend in CSL, their official language.

[...] the topic of health, there is no accessibility for us deaf people; for example, before, I was in the company's WhatsApp group and they talked something about health, and they said the word "health", "exercise", and there was training and a date to attend, and I told them: "I think that health training is very important, but if they are talking all the time, I won't understand" (EP10).

Given the lack of accessibility to group activities on health promotion, in which the majority who participate are those who can hear and a CSL interpreter is not avail-

lable, the deaf do not access the contents, repeat through imitation the practices they observe in the activities, but do not comprehend their motive or purpose.

[...] we didn't have a sign-language interpreter, and they were doing an activity, and it was like doing exercises, and the doctor talked all the time and I didn't understand. So, I looked at what the others were doing and I imitated by doing the same, but didn't understand why they were doing it (EP12)

Within the framework of healthcare, it is the ethical responsibility of healthcare professionals to explain the diagnosis, treatment and recommendations for the healthcare of patients, in comprehensible and simple manner; however, for the deaf, this information is transmitted in Spanish to the hearing companion, who subsequently replicates it to the deaf person, in many cases in precarious manner and with loss of details.

It would be good if doctors knew CSL so they could explain: you need to do this or that; but many times, because the family does not know CSL, they omit a lot of information and do not tell us the topic well (EP2).

For the deaf, it is quite important to understand about health and know how to care for themselves; therefore, they go to CSL users, like interpreters and teachers of this language, who solve their health-related doubts, although they recognize that this information is not always reliable or of quality. The language barrier with those who can hear determines that these people are their first references.

Explicitly, the study participants consider that said information should come directly from health professionals who have formation and experience to guide in health themes.

[...] many times, we consult with the interpreters, the professors, but they don't always know; those who know are the doctors, and we obviously need information from the doctor, not from the interpreter or any other person (GF4).

Sexual and reproductive health

[...] we have not been explained anything about education sexual (GF2)

Concepts concerning sexual and reproductive health constitute a category with greater saturation in this study, and integrate knowledge that the deaf reported building at home, specifically in the communication with the mother or in the educational setting, with peers who, during youth and adulthood, represent the referent of greatest importance to address sexuality.

Both the knowledge and practices in sexuality of the deaf are permeated by socially reproduced taboo and myths, and that even keep these people from en-

joying their bodies and exercising their sexual and reproductive rights.

[...] that topic of sex education was explained more or less in school, but in truth, I have to say that when I got my menstrual period, my mother had never explained [...] (EP4).

[...] among the female friends, we were always asking what is the best contraception method; this condom yes, or not this; with this it hurts too much, not with this; "oh! I feel pain during intercourse, what could it be?". And everything among the female friends (EP11).

An emerging theme from the voices of the participants is the care of the physical body within the framework of sexuality. The participants manifested the need to know the functioning of the organs of the male and female reproductive systems, body hygiene practices, practices to avoid the spread of diseases, recognition of symptoms related with sexually transmitted infections and body discomfort felt during sexual contact.

[...] nobody ever taught me about sex education; for example, men have a penis, women have a vagina; moms sometimes try to explain to you, but they don't explain how to take care of yourself (EP6).

[...] not knowing how to stay clean and caring for the genital organs [...] (EP12).

[...] on your penis, look for sexual infections, any scratching, any itches. (EP11).

In addition, participants report that in cases in which they receive information about sexual health, it is inadequate, incomplete, and incomprehensible. The environments where they frequently receive this information are represented by the educational, the family and community through their peers.

[...] well, many deaf people talk about the lack of parents or family teaching them about sex education [...] (EP6).

Frequently, the participants expressed feeling misinformed regarding their sexual and reproductive health, a situation raised by pain, shame and the religious beliefs of each subject and their sociocultural context; conditions that limit a healthy, safe, and free approach to sexuality.

[...] because there is manipulation by religions. Many deaf people have told me and I tell them: "No, that is not a sin; it is important for you to explore your body, for you to know yourself" [...] (EP4).

[...] for example, the deaf do not know what HIV means; they are ashamed to ask, because everybody will think they have it (EP12).

[...] the menstrual period, because sometimes they don't want to talk about this topic with their family, because they feel very embarrassed or don't know how to do it [...] (EP2).

Deaf women reported that there is little awareness among deaf men about contraception, and that preventing an unwanted pregnancy or a sexually transmitted infection is solely the woman's responsibility.

[...] men talk among themselves about how they have intercourse and all, but not about what sex education is. Men always think they have no responsibility in terms of taking care of themselves sexually, or taking care of their organs (P11).

Likewise, they expressed the need for psychological body care, within the framework of practices related to sexuality. In this sense, the participants report that promiscuity and a lack of self-care affect not only their own health, but also that of other people; that they do not know the ways to enjoy the body and how to assume enjoying healthy, free, responsible and meaningful sexuality, which transcends from sexual contact.

[...] awareness needs to be raised; above all, in the sexual part of men it is very complicated, because women are always taking care of ourselves, and men are not. Men are sometimes very promiscuous, they do not take good care of themselves, they are very relaxed in their sexual life [...] (EP6).

[...] the deaf community sees sexuality as a game; so, I think that this topic needs to be talked about a lot [...] (EP7).

Repeatedly, the study participants expressed misinformation in the deaf community about the prevention of unwanted pregnancy, sexually transmitted diseases, enjoyment of sexuality, self-care, recognition of the body, sexual and reproductive rights. They recognized that, in educational settings, very general information is given. They feel embarrassed asking in their family, and in the health system there are no educational strategies that address these issues in their own language.

[...] I know that maybe there are some talks, but we don't know exactly about what, we don't understand. Many deaf women get pregnant at an early age and it is not so much their fault, it is because that information is lacking [...] (EP6).

[...] I have asked my friends and none had any idea. Before, it was a joke, we got too caught up in this, because we had no idea [...] (EP4).

The previously described suggests that the approach of sexuality from health promotion and disease prevention is not conducted under the principle of equity or with a differential focus, which results in infringing the sexual and reproductive rights of the deaf population.

[...] it is not easy because there are many words I cannot understand, by I like to investigate in Google. It would be good if there was a talk about sex education in sign language for the deaf and let them explain all that completely; but, now, everyone is talking and talking, and we can't listen; then, serious! (EP6).

Mental health

[...] about the depression and hopelessness some have (EP21)

The study participants reported situations of loneliness, introspection, negativity, dependence on relatives, and withdrawal, which generate limitations to socialize and establish interpersonal relationships. Difficulties to communicate, in their own language, their emotions and concerns result eventually in mental health alterations.

[...] there are deaf people who are very lonely, are very negative in their life, or do not have confidence with friends to go out, and are always sad or depressed; they depend a lot on the family, or on the mother or spouse; they do not share with anybody. So, since there is no such communication, they put up with a lot; they only communicate with God [...] (EP8).

The study participants recognized some elements that are part of skills for life and of self-schemas [25], as important components to promote mental health and the life Project of the people; among them, the most-mentioned were control of emotions, self-image, and self-esteem.

Additionally, they referred that male deaf people express their feelings and emotions to a lesser extent, a condition that may influence unfavorably on their mental health.

[...] there are many things that happen that depend on emotions, which can become a disease. Then, for example, a person who gains too much weight, then their self-esteem...; a person who sometimes gets hurt with any word they are told or the perception they have of themselves, that part of mental health is missing [...] (EP4).

[...] men are like "oh! the woman knows, the woman is responsible, I am okay", and then they are more depressed, for many reasons men do not dare express much, and more so deaf men [...] (EP11).

[...] many deaf individuals suffer depression; some do not know what they want for their lives. There are deaf individuals with anxiety and do not know how to treat this [...] (EP12).

The deaf manifested the need to be provided information about mental healthcare in their own language, the CSL, a situation that would contribute to better understand said topics and to their quality of life.

[...] about the depression and hopelessness some have, all those topics in sign language would be very important if they knew it, it would help to improve quality of life [...] (EP12).

Explicitly, the study participants claimed the lack of guidance in mental health in the educational environment, which is replicated in other socialization contexts, like the family, community setting, and health services.

[...] What can be done in a case of depression? There is absolutely nothing about this in the school; so, I am very concerned [...] (EP5).

[...] from the very family you have to start talking about these topics directly with the deaf person: what is happening to you, how do you feel, what is your life project (GF1).

From the perspective of the study participants, the mental health problems affecting the deaf the most are depression and anxiety, conditions that cause greater withdrawal, feeding alterations, and in sleep, affecting globally the health of the subjects. The previously described is aggravated, given that they state not knowing where to consult when facing these situations.

[...] for example, with depression, it also makes the person sleep too much, eat little, or sometimes the person eats too much, and the person does not know why they are depressed, or anxious, but those things are not known by the deaf community [...] (EP11).

[...] What has to do with depression, many deaf people suffer depression, finding themselves in some situations of withdrawal or of non-recognition. It is also important to deal with this topic; it is absolutely necessary to address it because they are not few, there are a large number of the deaf who are being affected by that part (GF1).

Depression is the mental health disorder best known by the deaf. Its onset was frequently attributed to difficulties in relationships with relatives, relationship conflicts and job loss. This could account for the lack of cognitive and emotional tools of the deaf to face the dynamics and vital situations. They claim the need for the CSL interpreter that mediates in these situations with mental health professionals to provide guidance and support that is understandable and accessible in their own language.

[...] when they get sick, because there is no awareness of this, many people are depressed, because there is no communication with their family, because they broke up with their boyfriends or girlfriends, because they lost their job; then, some want to take their lives, some have taken it and what is missing is to have an interpreter there to mediate the communication and explain to them to improve their lives, but they have never been taught [...] (EP5).

Additionally, the deaf expressed that there are not enough psychology and psychiatry professionals to meet their mental health needs in education and care. This hinders access to said professionals, makes the deaf seek their peers and relatives for guidance regarding management and treatments. The foregoing constitutes a health risk and evidences deficiencies of effective, continuous, safe, and timely access to mental health services.

[...] I see there is a lot of depression, they don't know where to go, there is no communication with the psychologist to guide them in different processes. Some people fall into this depression and they can't solve it by themselves; they don't have a guide, they can't communicate with their families [...] (EP5).

[...] the only thing they do is to seek advice from their friends; sometimes, if they have suffered from the same, medications are recommended. Not long ago I was explained that this is very bad [...] (EP12).

Further, the deaf valued positively the support by psychology professionals, reporting that said professionals provide them with tools to address disability. Nevertheless, they express that there is misinformation in the deaf community regarding support opportunities provided by professionals from the psychosocial area in benefit of the individuals' mental health.

[...] there is no knowledge of what the psychologist is for, or what you have to do at a psychologist appointment; for example, I have had appointments with a psychologist and they talk to you a lot, they tell you how you can get better from depression [...] (EP7).

Moreover, although they recognize the interpretation service as a valuable resource to overcome communication barriers, and its use is prioritized for care with mental health professionals, the participants manifested that said communicative mediation puts at risk the right to intimacy, given the sensitivity of the topics discussed in these consultations.

All the aforementioned, added to economic barriers to pay psychosocial consultations and interpretation services, evidence the violation of the right to health and the multiple unmet needs of the deaf person's psychosocial dimension.

[...] sometimes it is a bit uncomfortable for an interpreter to be there because you want to talk about something directly with the psychologist; with the third party there, it is difficult. In addition to what you have to pay to the psychologist and to the interpreter; but we alone could not go because there are many words we don't understand, and by writing all the time, you won't get to the topic you want to talk about [...] (EP7).

[...] the fact of having to use the interpretation service, is knowing that my information will be in the hands of an interpreter, sometimes we don't like that too much [...] (EP12).

Lifestyles

[...] if you ask the person how they care for their health, if they know how much time they should sleep, how much they have to eat, what sport they have to practice; no, we do not have this topic in mind (GF3).

The deaf person's family as primary socialization context [26] is the principal generator of beliefs and practices for their healthcare. Within the framework of this lesson, a balanced nutrition and the practice of physical activity are habits that are promoted and which the deaf person recognizes and relates with health and wellbeing.

[...] my mother explained it to me, for example, the topic of health, especially about nutrition. She was always taking care of me; eat this, don't eat that. I stayed with that knowledge, she guided me in that part of nutrition that I cannot eat just any thing (EP4).

I have to do exercise, walk, practice sports; all that my family tells me (EP8).

The deaf identify eating practices that are harmful to health, such as high consumption of sugary drinks, processed foods, saturated fats, and low consumption of fruits and vegetables, associated with the development of diseases.

[...] a topic I have talked about with many deaf individuals here is nutrition; food for the children, given that they drink too much soda or don't eat fruits, then they get sick (GF1).

[...] fats can affect me; later I will have some diseases due to consuming this (P4).

The study participants reported access barriers to information related with the manipulation and preparation of foods and how said practices affect the person's health.

Likewise, as with the communication of other topics described related with health, the transmission of knowledge about healthy lifestyles is conducted in oral and written manner in Spanish, which is not very accessible for the deaf population.

[...] many times, we cook for cooking sake, but without any information. Nobody has told us that you can't combine this with that, or that it produces a certain thing, or that you have to wash the food, nobody; we have no access to this information (EP20).

[...] it may be that you have auditive information: "don't do that because you might get this; cook the food this way"; but the deaf individual cannot access this information (GF1).

The deaf recognize the complexity of the health-disease process and identify the practice of physical activity as a lifestyle that promotes health and which can be beneficial for people with certain mental health conditions.

[...] if a person is depressed, physical activity will help a lot. Everything is connected because health is connected with different points (EP4).

There are beliefs related with consumption of supplements, like proteins, that some deaf people use in sports practice contexts. The participants stated not being sure if this practice is harmful to health, in addition to an interest in learning about the subject.

[...] when we talk about the physical health of our muscles and of the exercise itself involved, for example, the gym, some people complement that exercise with proteins, is that good or bad? Is the body affected? I would like to know more about the matter (GF1).

Discussion

The healthcare beliefs and practices of the deaf participating in this study are derived from lessons acquired in the family nucleus, information shared among peers through the CSL, and behaviors incorporated into everyday life through imitation.

The deaf recognize sexual and reproductive health, mental health, healthy nutrition, and the practice of physical activity as relevant elements to stay healthy; however, they state that information about these themes is not accessible to them and request receiving quality healthcare education in their own language.

With respect to sexual and reproductive health, risk practices emerged according to that reported by the deaf people participating in this study, specifically regarding sexually transmitted infections. No clarity exists about the risks and the protection measures, confirming that described by Gil-Cano *et al.*, [27] in a study carried out in Medellín, Colombia in which the control the family exercises over the deaf person is problematized, through omission of information about their sexual and reproductive rights.

Moreover, regarding mental health, the deaf coincided in the concern for anxiety and depression, which from their experiences are frequent among the deaf community, which they relate with social isolation, difficulties to communicate their emotions and establish interpersonal relationships. This finding is coherent with that

reported in scarce research conducted with this population, which have found a higher rate of depression or anxiety in deaf adults compared with the general population [28,29], which could be explained given the barriers for participation in different social contexts (family, educational, community, labor), barriers for effective access to healthcare, and difficulties to communicate with mental health professionals.

The results from this study suggest that activities in education, health promotion, and disease prevention, carried out within the framework of the education system and Colombian health systems, are designed generically, in oral or written Spanish, and ignore the plurality and diversity of people and communities; hence, these tend to be discriminatory, which results in greater social gaps and health inequity. This adverse scenario for the population with hearing impairment is similar to that reported by Campos and Cartes-Velázquez in 2019, where they relate the multiple barriers to accessing healthcare information at different levels of prevention, in addition to linguistic barriers to have access to health contents shared through mass media, like radio and television [30].

Improving health outcomes, through wellbeing and la quality of life, as well as diminishing the burden and impact of the disease on the lives of people, represent explicit objectives of the effective implementation of the Comprehensive Health Care Routes (CHCR) [31]. To achieve such, healthcare must focus on health promotion and disease prevention, centering on comprehensive care that approaches individuals from their biological, psychological, and social dimensions, abandoning the curative and assistance approach focused on the disease, to assume one frameworked in accessible and inclusive actions of health education, specific protection, and early detection, which keep in mind the peculiarities and singularities of the deaf, contextualized to their needs and own language.

The previously described, in line with the approaches proposed by the CHCR, implies universally promoting, protecting, and implementing the right to health [13], guaranteeing access to attention and interventions of all people during the course of their lives (from birth until death), and broadening their opportunities [31], focusing generally on the wealth of human lives and not only on the wealth of the economies, that is, from the posture of human development [32].

One of the principal strategies of health promotion is health education, which in principle and from current perspectives should be considered a democratic and emancipatory process, which involves the interests, needs, characteristics, and contexts specific of the subjects and collectives [33]. The deaf population, according with that evidenced in this study, is systematically excluded from any health education process, from the most traditional that address the transmission of information,

to current ones —with critical social and participatory approach.

In the health setting, the generation of skills and competencies that allow people to make autonomous decisions in favor of their health must become a fundamental device for the exercise of citizenship and effective enjoyment of the right to health from a democratic perspective. This device must be structured and thought for the deaf population, given that reasonable adjustments should be made that include health education adapted to their cultural characteristics, language, and learning style. Consequently, development of health education strategies for the deaf must recognize using their own language, which is signed, and a cultural identity that joins this community due to its common history and mode of interaction among its members [34].

With respect to study limitations, the call did not achieve broad participation by the deaf residing in rural areas due to technological barriers (people without access to the internet) and that some of them have not had basic education and, hence, do not communicate through the CSL, but through home signs. This situation distances them from the deaf community and involves a dependency relationship with their relatives and sole interpreters.

Further research is suggested with deaf population residing in remote territories, which contributes to understanding their needs in health education and communication and which permits their differential approach.

In addition, the scientific community and health professionals are invited to advance in developing inclusion strategies of social appropriation of healthcare knowledge, with reasonable adjustments for people with hearing impairment.

Conclusion

The beliefs, concerns, and practices related with healthcare reproduced within the deaf community from Antioquia, through imitation behaviors among peers and in the family nucleus, through the configuration of individual and collective imaginaries, involve sexual and reproductive health, mental health and lifestyles, as well as healthy nutrition and the practice of physical activity.

The participants associate contraception as the woman's responsibility and consider that men do not care much for their physical and mental health; both beliefs lead to concern for the disease and to denounce the social exclusion they have been subjected to.

The deaf coincide in that information about healthcare, shared in educational, health, community and work contexts, is not accessible or comprehensible for them, and that no social or State will exist to implement rea-

sonable adjustments, like the interpretation of the CSL in health education and communication processes.

Structurally, the sociohistorical debt of access to information for healthcare in the deaf population is confirmed, a situation that evidences the lack of legitimacy and capacities of the Colombian health system to guarantee its principles of equity and accessibility to health education, health promotion, and disease prevention activities.

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The researchers declare having no conflict of interest.

Declaration of responsibility

The authors are responsible for the intellectual content and other matters of methodological rigor and integrity of the work.

Declaration of contributions by the authors

The authors participated during the entire research process, from the formulation of the project, collection and interpretation of the information, to the drafting and review of the final manuscript.

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