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THE SOCIAL REPRESENTATIONS OF PATIENTS OF QUECHUA ORIGIN WITH TYPE 2 DIABETES ABOUT THEIR DISEASE AND TREATMENT IN TWO HOSPITALS IN CUSCO

LAS REPRESENTACIONES SOCIALES DE PACIENTES DE ORIGEN QUECHUA CON DIABETES TIPO 2 SOBRE SU ENFERMEDAD Y TRATAMIENTO EN DOS HOSPITALES DEL CUSCO

Ramón Figueroa-Mujica[1], Guisela Yábar-Torres[2]

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ABSTRACT

Objectives: To achieve an approximation the social representations of patients about their disease. and about its treatment. **Methodos:** This is a qualitative study on social representations based on the interpretive paradigm and through an in-depth interview, for which a guide of topics or categories was used, based on the objectives of the study. The study population was made up of patients treated in the Endocrinology Units of the Antonio Lorena and Regional Hospitals of Cusco, diagnosed with type 2 diabetes and of Quechua origin evidenced by their mother tongue. The sample is non-probabilistic for convenience, the representativeness of the discourse was sought for this, reaching 30 interviews based on the saturation criterion. The information analysis included 1. The transcription (from oral Quechua to written Quechua) and the translation of the interviews and 2. The computerized processing of the interviews, for which purpose the RQDA (Research qualitative data analysis) computer program was used. **Results:** The ideas that patients have about the cause of their disease and the changes that it produces reflect the influence of Modern Medicine and Andean and Popular Medicine. On the other hand, for the treatment of their disease, they consider it useful to combine the medications that have been indicated in the health service with the resources of Andean and Popular Medicine (medicinal herbs and other natural products). **Conclusion:** The patients in our study have an intercultural approach to approach and treat.

Key words: Type 2 Diabetes; Indigenous Peoples; Diabetes Education; Interculturality (source: MeSH NLM).

RESUMEN

Objetivos: Analizar las representaciones sociales de los pacientes sobre su enfermedad. y tratamiento. **Métodos:** Es un estudio cualitativo sobre representaciones sociales basado en el paradigma interpretativo y mediante la entrevista a profundidad, para lo que se usó una guía de temas o categorías, en base a los objetivos del estudio. La población de estudio, estuvo constituida por los pacientes atendidos en las Unidades de Endocrinología de los hospitales Antonio Lorena y Regional del Cusco, con diagnóstico de diabetes tipo 2 y que tienen origen quechua evidenciado por su lengua materna. La muestra es no probabilística por conveniencia, se buscó para ello la representatividad del discurso alcanzando a realizar 30 entrevistas en base al criterio de saturación. El análisis de la información comprendió 1. La transcripción (del quechua oral al quechua escrito) y la traducción de las entrevistas y 2. El procesamiento informático de las entrevistas, para cuyo efecto se uso del programa informático RQDA (Research qualitative data analysis). **Resultados:** La concepción que tienen los pacientes sobre la causa de su enfermedad y los cambios que ella produce recogen la influencia de la Medicina Moderna y la Medicina Andina y Popular. De otro lado para el tratamiento de su enfermedad consideran útil combinar los medicamentos que se les ha indicado en el servicio de salud con los recursos de la Medicina Andina y Popular (hierbas medicinales y otros productos naturales). **Conclusión:** Los pacientes de nuestro estudio tienen un enfoque intercultural para enfocar y tratar su enfermedad.

Palabras clave: Diabetes Tipo2; Pueblos Indígenas; Educación Diabética; Interculturalidad (fuente: DeCS BIREME).

[1] Universidad Peruano Cayetano Heredia, Lima, Perú.
[2] Universidad Ricardo Palma, Lima, Perú.

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INTRODUCTION

Currently around 500 million people in the world suffer from diabetes[1], among them indigenous people suffer disproportionately[2] with the consequent impact at the socioeconomic and health level. In Peru, diabetes is estimated at 6.7% between 20 and 79 years of age[1], affecting mainly the peoples with western and mestizo culture; there are no statistics on the indigenous peoples; however, there are indications that it is also increasingly affecting this population, especially when they migrate to urban areas[3]. A fundamental strategy for the control of this disease is to change lifestyles through diabetes education; however, in the case of the indigenous peoples, an intercultural approach is required. This implies first of all knowing the social representations ("common sense") of patients of indigenous origin about their disease and its treatment.

The approach to the social representations about the disease of patients of Quechua origin with a diagnosis of type 2 diabetes in two hospitals in Cusco, allows us to have a basis for developing a proposal for educational intervention, with an intercultural approach that should improve the effectiveness of their treatment, after discussion with the team of health professionals and patients.

The patients with a diagnosis of type 2 diabetes of Quechua origin in this study are treated in the hospitals of the Regional Ministry of Health and Antonio Lorena of the city of Cusco, these patients, along with others, receive care in the Endocrinology units where in addition to specialized medical care they receive guidance for the management of their disease through monthly group sessions. The contents and material used in these sessions are designed in Spanish and are focused from the cultural and scientific patterns of modern culture and western medicine, therefore, they do not take into account the Andean culture of the patients.

It is useful to point out that the regional peoples (mostly mestizo and indigenous) has undergone important cultural changes in recent decades in their lifestyles, including food ("junk food") and physical activity (sedentary lifestyle).

The World Health Organization (WHO) states that diabetes is a chronic condition characterized by high levels of glucose in the blood and occurs when the pancreas does not produce enough insulin (type 1 diabetes) or when the body cannot use insulin effectively (type 2 diabetes)[4]. It also points out that the risk factors for type 2 diabetes are: ethnic factors, previous history of diabetes in relatives, diabetes in pregnancy, prolonged age, excessive weight and obesity, unhealthy diet, sedentary lifestyle and tobacco use[4].

WHO also indicates that the first basic principle for the management of the disease is the Intervention to promote and support healthy lifestyles including healthy diet, physical activity, avoidance of tobacco and alcohol[4].

According to what is mentioned, the International Diabetes Federation (IDF) points out that patient education is a very important component of diabetes management, and therefore the patient's cultural[5] characteristics should be taken into account in the approach and methodologies[5].

"The United Nations State of the World's Indigenous Peoples" states, in agreement: «Indigenous communities, peoples and nations are those which, having a historical continuity with the pre-invasion and pre-colonization societies that developed on their territories, consider themselves distinct from other sectors of society now prevailing in those territories or parts of them»[6].

Likewise, the United Nations Declaration on the Rights of Indigenous People states that "indigenous peoples have the right to enjoy the highest attainable standard of physical and mental health and that states should take the necessary measures to achieve progressively the full realization of this right. "6.It also states that the pollution and destruction of indigenous peoples' natural habitats has eroded their traditional food systems and food security. This has led to an increased dependence on imported foods which is causing obesity and diabetes[6].

On the other hand, Nathan Wachtel points out that the phenomena of acculturation that historically occurred in America have as results either integration, where innovations make sense within a readapted indigenous tradition, or assimilation where the adoption of European elements goes hand in hand with the elimination of indigenous traditions[7].

It is also important to point out that in Peru, Arguedas was one of the most outstanding representatives of the experience and later the study of this process of miscegenation; his expression "I am not an acculturated person, I am a Peruvian who proudly, like a happy devil, speaks in Christian and Indian, in Spanish and Quechua" is well known.

In Peru, the Ministerio de Salud (MINSA) has recently been considering Interculturality as a cross-cutting concept in its health policies, strategies and actions, obviously the challenge is to put it into practice.

Denise Jodelet points out that social representation "is a form of knowledge, socially elaborated and shared, having a practical focus and oriented towards the construction of a reality common to a social group"[8] Sandra Araya points out that social representations refer to a specific type of knowledge that plays a crucial role in how people think and organize their daily lives: the knowledge of common sense[9].

On the other hand, Irene Vasilachis points out that for sociology three epistemological paradigms have been used to interpret social phenomena; these are the materialist-historical, the positivist and the interpretative, the latter being in the process of consolidation[10].

This author, without denying the usefulness of the first two paradigms, suggests the usefulness of the interpretative paradigm insofar as it allows a better understanding of the perspective of the "other", which is precisely what the theory of Social Representations seeks[10].

In Latin America there are studies about social representations on diabetes in indigenous peoples, here we summarize those considered most illustrative.

The study by F. Bautista 2014 Intercultural Prevention of Type II Diabetes in the Pemón Karamakoto people, conducted in the municipality Gran Sabana, Bolivar state, Venezuela sought to systematize the intercultural experience of the threat posed by chronic diseases such as diabetes mellitus. It was qualitative research using the interpretative paradigm. The results showed a significant increase in the number of cases of diabetes mellitus and the lack of epidemiological surveillance. Likewise, the coexistence of biomedical rationality and "traditional socio-magic" was evidenced, as well as the absence of interculturality in formal health care (with the ethnocentrism of the former) and the lack of prevention with an intercultural approach[11].

The research by J.T. Page-Pliego Subjectivities on the causality of diabetes mellitus among six Tseltales from the municipal capital of Tenejapa, Chiapas (Mexico) 2015 had the purpose of addressing the subjectivities of Tseltales from the municipal capital of Tenejapa with diabetes on the causes of their "sugar" in the blood. A qualitative research was conducted through in-depth interviews with patients with this condition. It points out as the most important conclusion, that those who have had greater interaction with agents of the mestizo society are inclined to discard the non-natural aspects, placing the "sugar" disease in the natural environment, such as eating habits, without necessarily discarding supernatural factors[12].

S. Bermedo Dimensions and meanings acquired by the health-illness-care process in Mapuche-Williche users with diabetes mellitus and arterial hypertension. The objective of the 2015 study conducted in Rio Negro, Chile, was to describe the traditional therapeutic practices in Mapuche-Tiliche indigenous users of patients diagnosed with diabetes and arterial hypertension. The methodology used was a case study and in-depth interview. It concludes that the conceptions of cardiovascular diseases from the official-hegemonic medical model are not part of the cultural matrix of the Mapuche-Tiliche people. Likewise, adherence to the modern treatment imposed is low in patients who live in territories with a high concentration of indigenous peoples[13].

Piñón SL, C. Juárez and D. Reartes Beliefs of indigenous people from Chiapas about diabetes and possibilities of intercultural care (Mexico), 2015 aimed to describe the experiences of suffering from type 2 diabetes in a group of indigenous patients diagnosed with diabetes who were transiting through the health services of the Chiapas Highlands. Qualitative interviews were conducted using a semi-structured interview guide. The results indicate that in the construction of suffering from diabetes there are situations of suffering, especially fear. In relation to the treatment, patients use first of all the communal therapeutic resource before going to the doctor, including the use of different medicinal plants; they also indicate that they do not go to the healer because he cannot treat this disease[14].

Montesi L. Diabetes as a metaphor of vulnerability. The case of the Ikojts of Oaxaca (Mexico) 2017 with ethnographic research sought to explore the sociocultural representations of diabetes and the life experiences of those afflicted with diabetes in an Ikojts community in Oaxaca. He used interviews with people in that community with a prior diagnosis of self-reported type 2 diabetes. The author points out that diabetes is an expression of vulnerability, symptom and metaphor of economic, social, cultural, dietary and environmental changes suffered by the

Ikojts community as a result of capitalist modernity[15].

Page, E. Eroza and C.G. Acero Living suffering from sugar. Social representations on diabetes mellitus in three localities of the Highlands of Chiapas (Mexico) 2018 sought to know the subjectivity, experiences and trajectories of poor Mayans and mestizos who live suffering from diabetes mellitus. Qualitative research was conducted through interviews with patients and their families. The results invariably find a key event of suffering or social violence as a trigger for their illness. She concludes that biomedicine has to go beyond hard data and enter into the cultural modalities of suffering and thus enable the generation of educational interventions for a more adequate management[16].

M. Cruz-Sánchez and M. Cruz-Arceo 2020 The meaning of diabetes mellitus among indigenous Chontal people of Tabasco, Mexico, 2020. the objective was to understand the meaning of diabetes and some gender differences in the care of the disease in indigenous Chontales. The methodology was a qualitative study using a semi-structured interview. In relation to the cause, both men and women allude to "fear" as the trigger of the disease. On the other hand, herbal medicine is widely used because it is considered to be an effective treatment for diabetes, and an important trust in God to face the disease was found[17].

S. Hirsch and V. Alonso The emergence of diabetes in a tapiete community of Salta: gender, ethnicity and relations with the health system (Argentina) 2020 the objective was to know the most relevant aspects of the disease, the therapeutic itineraries, the difficulties in the treatments, the complications and the access to health services of this indigenous peoples. This is a qualitative research through semi-structured interviews with patients with this disease. Thus, diabetes is referred to as a consequence of emotional stress such as grief due to the death of a loved family member. Many patients resort to herbal medicines to treat their diabetes in combination with prescribed medications[18]. With regard to food, when they begin to feel better, they return to their usual eating practices and abandon the diet.

An overall appreciation of the works presented allows us to specify that diabetes is a new disease for the indigenous people with a growing presence among them. In the knowledge and practices about this disease, two different rationalities converge, modern medicine and the traditional medicine of the indigenous peoples. Thus, in relation to the cause of the disease, they point out from food and beverage practices brought from modernity to the intervention of supernatural forces or a very strong emotional state. With regard to the treatment, the use of modern medicines complemented with the use of traditional medicinal plants is evidenced. The difficulty that patients have in complying with the diet prescribed by modern medicine is also noted.

Some authors of the studies emphasize the importance of considering structural factors of an economic, political, cultural and environmental nature that have affected indigenous peoples and that explain the growing presence of diabetes in this peoples. On the other hand, the authors point out the importance of the intercultural approach for an adequate preventive and curative care of this peoples.

It is also important to emphasize that social representations respond to the need of human beings to take into account the world that surrounds us; it is necessary, in relation to it, to adapt, to conduct ourselves, to dominate it physically or intellectually, to identify and solve the problems that it poses[19] that is why we make representations in the face of the world around us, we are not only equipped with automatisms, nor are we isolated in social life: we share this world with others, we rely on them - sometimes in convergence, sometimes in conflict - to understand it, to manage it or to face it[19].

METHODS

Research Design

This is a qualitative study on social representations based on the interpretative paradigm and through in-depth interviews. For this purpose, there was a guide of questions grouped by themes or categories, based on the objectives of the study. This interview guide was based on the one used in a study on social representations in tuberculosis patients conducted by Dr. María Planas in Callao/Lima. The research was carried out in two hospitals of the Ministerio de Salud del Cusco.

Peoples and Sample

The study peoples, is constituted by the patients attended in the Endocrinology Units of the Regional and Lorena specialized hospitals of Cusco with a diagnosis of type 2 diabetes and who have Quechua origin evidenced by their mother tongue, attended during the last months of 2018 and the first months of 2019. The sample is non-probabilistic by convenience,

the representativeness of the discourse was sought for which a limited number of patients have been selected according to the following criteria: sex, time of diagnosis of diabetes and origin (urban/rural); 30 patients were successfully interviewed based on the level of saturation of the information reached.

Inclusion criteria were: people of Quechua origin (mother tongue), diagnosis of diabetes, age between 18 and 75 years, prescription of oral antidiabetics or insulin therapy and consent to participate in the study. Exclusion criteria: cognitive impairment and/or mental illness, sensory disability of some kind and comprehension difficulties.

The dimensions of the analysis were: 1. The patients' ideas about their disease and 2.

In relation to the procedures and techniques, these included two stages:

Instruments

During the first stage, in-depth interviews were conducted in the two hospitals: Regional and Antonio Lorena del Cusco, and after an evaluation, the in-depth interviews were carried out in the patients' homes.

Procedure

The interviews were conducted mainly by nurses who spoke Quechua; they were conducted in places near to the Endocrinology office where the patients had attended for their control. The evaluation of this experience was carried out in March 2019, where it was found that the patients had very limited time for the interviews (25 minutes), it was also evident that the patients were very sparing in their answers when asked about the Andean dimension of their experience of illness.

On the part of the interviewers, the use of the professional apron established a vertical and not horizontal relationship with the patients of both sexes, which hindered a more natural conversation.

In the second stage, the interviews were conducted in the patients' homes, taking into consideration the limitations that were found during the development of the interviews in the hospitals. Thus, during the months of April to September 2019, these conversations were conducted with the participation of nurses who had a better command of Quechua and in the homes of the patients after an appointment was made through telephone communication. The interviews were conducted in a more natural context for the patient, facilitating the duration of the interviews, which averaged more than 60 minutes, and the Andean dimension of the patient's illness was better appreciated. On the part of the interviewers, the use of common clothes allowed for a more horizontal relationship with the patients, and it was also possible to develop following the guidelines of an in-depth interview.

Analysis of the interviews

The interviews were analyzed in the following stages:

a. The transcription and translation of the interviews. The transcription of the 30 interviews (from oral Quechua to written Quechua) required the support of a special computer program (Sony digital vice editor). Then all the transcribed interviews were translated into Spanish and saved as text files in Word format.

b. Computer processing of the interviews. For this purpose, the RQDA (Research qualitative data analysis) software was used. Previously, each of the Word text files of the interviews were converted to a new format with extension (.txt). Then each of these interviews was imported into the RQDA program to form a "project" corresponding to the research work. Then, with each of the interviews of the "project", we proceeded to identify the codes and categories of codes in correspondence with the themes of the interview.

c. Identification and analysis of the themes contained in all the interviews. We proceeded to the review and analysis of the set of codes and categories of the 30 interviews to relate them to the themes of the Interview Guide (as well as the new themes found) in order to identify their regularities and differences. At this stage it was possible to formulate the results of the study.

RESULTS

With regard to the social characteristics of the patients, it can be seen that the highest percentage are elderly, live in the province of Cusco (both in urban and rural areas), are illiterate, and in some cases have a primary school education, live with their partner and are engaged in small businesses, farming in their community or are retired. Based on these characteristics, they can be considered mostly poor.

The following testimony is just a sample of the material poverty of most of the patients:

- P: *Sometimes my children bring me errands to cook for us, most of the time I cook on a stove by buying pieces of firewood, we prepare only our breakfast using gas. We think, if the gas runs out, who is going to buy it for us. Last month my sons came, for Father's Day and they made an agreement, one of them will pay for the electricity, because electricity is expensive, lady, they will pay for the water, "we will buy you gas" they told me, I hope it is true, PATIENT 10 c [3072:3610]. F., 74 years old, living in a rural area.*

The characteristics indicated are related to the identity of the patients. In this regard, it is recognized that it is crossed by criteria of race, ethnicity, geography, class, gender and generation[19].

Patients' ideas about their disease

a. About the cause of the disease

Most of them attributed it to a strong emotional state:

- I: Mrs. in your opinion, what do you think is the cause of this illness?

  P: *Well, as I told you, I was a nagging person, this disease came to me because of a lot of worry. My family and I had problems and because of that, I was very sad and there were also other causes and because of the sadness I felt and also because I was a nagging person. These were the two causes that caused my illness, in my family there is no one who suffered from diabetes recently, rather my brother-in-law suffers from diabetes in Lima, it is not even here. PATIENT 4 c [10435:11165]. F. aged 44 years living in the urban area.*

Some patients, however, attributed it to the type of diet:

- I. What do you think would be the cause for you to have this disease?

  P. *Well, it could be that I have consumed sugar, I used to consume a lot of sugar. I lived with my godmother in Urcos, my mother had many children so she left us in the care of other people, whether we were men or women, I lived with my godmother, taking care of the store, that was what I did, they locked me in the store to take care of it. I used to eat bread called here "the chutas" and I added sugar on top, I used to drink soda, chocolate; .... when my husband died I started to drink beer, alcohol, those things, now I don't consume none of those things, I don't even want to see those things.*

  PATIENT 30 [9111:10299]. F., 65 years old, living in a rural area.

The attribution that most of the patients make as the cause of their diabetes, is mainly to emotional situations (worry, anger or sadness), is striking, since it is different from what Modern Medicine points out, which attributes it mainly to the type of food[3], it is instead closer to the approach that the Andean culture has on the body and health-disease.

b. About the changes that occur with the disease

- *P: Diabetes is when our blood turns sweet, isn't it?, they say " blood turns sweet". PATIENT 2 c [15428:15519]. F. 74 years old living in urban area.*
- *P: ...., they say that illness is in the blood, maybe you have to clean the blood. PATIENT 29 c [12899:13000]. 57-year-old F. who lives in rural areas.*
- *P: Yes, silently it progresses internally, on the outside you are healthy and suddenly when it is already advanced it gets complicated, the disease progresses inside. PATIENT 4 c [44414:44769]. F. is 44 years old and lives in an urban area. F. is 72 years old and lives in an urban area.*
- *P:....I have asked everyone and everywhere, and as a conclusion I have been told "there is no cure, there is no cure for this disease". PATIENT 28 c [7986:8107]. F., 72 years old, living in a rural area.*
- *P: Yes, I already knew, as it progresses, it affects the eye, the kidney, the heart, "so what are we going to eat if everything affects us and this disease affects the other organs", a lady has died. PATIENT 15 c [4334:4657]. F., 62 years old, living in an urban area.*
- *P: Yes, there was a teacher, she has already died, she also had this disease, she was being treated even in the Seguro and she was not cured, she became blind, that is what I am afraid of. PATIENT 17 c [3070:3236]. F., 60 years old, living in an urban area.*

The patients' perception of the nature of the disease alludes mainly to the organic or biological dimension of the body that is affected by diabetes; however, they do not fail to allude to the emotional dimension of the disease.

Patients' perception about their treatment

a. Treatment from the health service

- I. How should the care be?

  P: Go to the hospital for control, at least every three months. Eat healthy food, vegetables, boiled food, no fried food, fruits, do not eat bananas, custard apples, apples, yes, ... every day.

  I: What else is there to do?

  P: Exercises, that's what the hospital supports us in, they should make us do it. PATIENT 15 c [8718:9109]. F. 62 years old, living in an urban area.

- I: Good, let's start talking since we have already started, in the first instance what were the pills you were given?

  P: Metformin and glibenclamide, what helped me to heal this disease was drinking herbal extracts and drinking herbal tea. PATIENT 4 c [11465:11737]. F., 44 years old, living in an urban area.

- I: How do you think a person with diabetes should be cared for?

  P: I think they should be calm, they should not have worries, problems, worries seem to make the disease gets worst.

  I: And in the feeding?

  P: Also in the diet, not to eat too much fat. PATIENT 18 c [10617:10903]. F., 73 years old, living in an urban area.

- P:..... maybe the medicine is in the herbs, maybe the pills are hurting us, maybe treatment with herbs is better. They say that the pills affect the heart, the treatment and maybe it is hurting us, those are the things we want to know. PATIENT 29 c [13452:13729]. 57-year-old F. who lives in a rural area.

It can be seen that the patients are aware of the treatment indicated by the health service, including the use of anti-diabetic medication, diet and exercise, and they also emphasize the importance of attention to their emotional state; they also point out the use of medicinal herbs for their treatment.

b. The use of Andean and Popular Medicine for their diabetes

The use of medicinal herbs: g

- I: Perhaps you complement your treatment or diet with some other alternative medicine?

  P: Yes, sometimes I take medicinal herbs. I boil citron, "cancer herb" and "cola de caballo", then if I have other herbs, I add them. I also add corn peel, washed "compis potato" peel, with all those ingredients I prepare a tasty tea. PATIENT 9 c [26725:27883]. F., 47 years old, living in an urban setting.

- I: Very well, this herb is citron, isn't it?

  P: Yes, it is. This is "yawka", this is flaxseed, sarsaparilla, dandelion, "yawar chonqa", "pilli pilli", barley, plantain herb, "cola de caballo".

  I: Okay, so you take these herbs as drink?

  P: That's right Mrs., I take these herbs instead of a drink. I just take these teas and pills for the diabetes that I take daily. PATIENT 10 c [29473:30359]. 74-year-old F. who lives in a rural area.

- I: From the moment you found out about this disease, what herbs have you consumed, did anyone tell you anything?

  P: Sour things, I grind "hayaq pilli" in the fuller and drink the juice, if you boil the sage the water is also bitter. I also drink the "hayaq pilli" in a cup and sometimes I forget to drink it.

  I: In the two years that you have been suffering from this disease, what else have you been taking?

  P: Nothing special, I mix and boil barley, carrot and corn hair and I drink it as a "tisana". PATIENT 23 c [11618:12581]. F., 62 years old, living in a rural area.

The use of other natural products:

- I. In the things or teas you take do you use Traditional Medicine?

  P: Yes, for my glucose some friends told me to drink pumpkin extract, that is true, it lowers your glucose. I drink it for a week monthly and it lowers my glucose to 105, 118, 150. My friends also say that it is good to chew "coca", they say that "we have to add some "coca" in our lunch", that is what I also do. They also say that "tarwi is good", so I soak it, I pinch it with my fingernail and put it in my mouth with water. PATIENT 17 c 10282:11566]. F., 60 years old, living in an urban area.

- I: What about the tuna fruit?

  P: Yes, I also eat the slime from the tuna stalk. I grate it like I grate the "olluco", when you chop and put in water the slime comes out from the stalk.

  I: That's good, did you drink this every day?

  P: I took it daily in the morning. On an empty stomach, you have to take all medicine on an empty stomach. PATIENT 10 c [31786:32563]. F., 74 years old, living in a rural area.

- I: I heard you a moment ago that you visited doctors specialized in nature medicine and followed a treatment, didn't you?

  P: I ate "yacon". I ate it for a long time...that's right, every day I ate a "yacon", if it was big I ate half of it. PATIENT 6 c [26351:27209]. F. is 55 years old and lives in a rural area.

Some of the products are consumed raw, others need to be boiled for consumption and in some cases the liquid obtained after boiling is drunk.

Recourse to a Traditional Medicine specialist

- P: No, when healers come, I don't see them, I used to stay away, my illness was like a secret, I thought they would criticize me. PATIENT 6 c [30339:30697]. 55-year-old F. who lives in a rural area.
- P: .....this is other thing, this is not a disease that is related to witchcraft, this is something else; cannot be confused with a disease such as diabetes, because when blood or urine is tested, it turns out to be very sweet. PATIENT 5 cc [26052:26400]. M. 75 years old living in urban area.
- P: ...., for diabetes I go to the doctor, not to the healer, maybe I go to the healer for other things, but never for diabetes. PATIENT 19 c [25309:25487]. M., 75 years old, living in an urban area.
- P: ...., That never crossed my mind, I don't believe much in healers, they sometimes lie. Let's imagine I go to a healer, they don't do tests, how are they going to find my illness to know what my diagnosis is? ". PATIENT 25 cc [11929:12405]. M., 75 years old, living in an urban area.

It is clear from the set of emissions collected that most of the patients in the study do not go to a specialist in Traditional Andean Medicine to treat their diabetes.

In relation to ethical considerations, as corresponds to an academic research study, the Ethics Committee of the Universidad Peruana Cayetano Heredia was asked to approve the study project in a timely manner. It is useful to indicate that the realization of this research work is based on the application, with prior consent, of an interview, which does not affect the health and well-being of the patient. Likewise, informed consent was obtained from the patients, for which purpose they were provided with the corresponding information, answering their concerns, and then they were asked to sign the respective document; in cases where the patient refused to participate, their decision was respected after being informed.

DISCUSSION

Regarding the cause of his illness, David Alvarado states that, in Andean culture, there are three interrelated levels of the body: (a) a physical-animal level (uku or kurku), endowed with biological and spiritual characteristics, interrelated, (b) a socio-community corporeal level (ñoqanchis) that includes the ayllu and the community and (c) a corporeal level of commonwealth (pacha) that includes the interrelationship not only with human beings but also with other living beings. These dimensions are affected when disease occurs20. In the case of diabetes and according to testimonies, these three levels are affected. In other studies, carried out in indigenous peoples of Central America, heavy emotional states such as fear, anger, sadness, among others, are also attributed as the main cause or trigger of diabetes.

On the other hand, from Modern Medicine it can be pointed out that depression and type 2 diabetes seem to share the same causal origin, including here as a common factor the low socioeconomic level[21]. In this regard, the syndemic theory suggests that there is interaction between non-communicable diseases such as those mentioned and that these diseases are also determined by common social factors such as poverty that would produce social suffering[22].

Regarding the changes that occur with the disease, it can be seen that the characterization they make reflects, albeit with simple expressions, not only the discourse of modern medicine regarding the disease, but also their experience with it. In fact, it has already been pointed out that the International Diabetes Federation states that type 2 diabetes is characterized by high blood glucose levels

(hyperglycemia), which will produce different discomforts and eventually lead to different complications, including death[23], It can be pointed out in this regard that this characterization of diabetes by patients corresponds to the so-called Dominant Medical Model (also called Biomedicine), which according to Eduardo Menéndez has among its most important characteristics biologism, where the organic or biological dimension of health-disease is emphasized and its psychological and social dimensions are underestimated[24].

It is important, however, to establish that the patients, apart from pointing out the biological dimensions of their illness, also come to determine the emotional component of it. Considering together the patients' ideas on the cause of their disease and on the changes that occur with it, it is thus possible to state that they are closer to the Andean conception of the body and health-disease when considering the physical-emotional and socio-community levels.

Regarding the patients' perception of their treatment, it is important to emphasize first of all that the medical discourse in relation to the treatment of the disease that is collected by the patients, corresponds fundamentally to the discourse of Modern Medicine and is part of the so-called Dominant Medical Model. E. Menéndez points out that this model is the set of practices, knowledge and theories generated by the development of what is known as scientific medicine, which has replaced other models by identifying itself as the only way to treat the disease legitimized both by scientific criteria and by the State 24; this model has among its main characteristics its biologism to understand and act on health and disease and its emphasis on the reparative part of health. It can be seen that hospitals, as is to be expected as a third level service, emphasize restorative health care.

The World Health Organization recommends for the prevention and control of diabetes, the promotion of healthy lifestyles including healthy diet, physical activity, avoidance of tobacco and alcohol, medication with insulin or oral hypoglycemic agents for blood glucose control and regular examinations for the early detection of complications4This WHO proposal keeps a certain distance from the Hegemonic Medical Model already mentioned, since without denying the importance of the reparative component, it emphasizes health promotion and disease prevention, which should be carried out mainly at the first level of care. Likewise, the WHO points out the importance of attending to the mental health problems of patients with diabetes by recommending the integrated management of this disease with other chronic conditions, including depression[4].

Regarding the use of medicinal herbs and natural products, it is useful to point out that they are effectively used as a complement to the medications prescribed by the treating physician. In this regard, it is evident that patients, by resorting to Modern Medicine for the diagnosis and treatment of their diabetes and using as a complement a set of herbs and natural products that come from Andean and Popular Medicine, are evidencing an intercultural approach and practice to face their disease. This interaction between two medicines, however, is fragmentary and unequal and it could be said that this relationship between different cultures and medicines does not occur on a horizontal plane of dialogue and tolerance, which is what characterizes interculturality as a project[25]. It is interesting to note that in several studies conducted in indigenous peoples of Latin America and presented in Background, it was found that the vast majority of them use medicinal herbs and natural products from their culture to treat, along with modern medicine, their diabetes[26,27].

For several years, the WHO has recognized the importance and usefulness of Traditional and Alternative Medicines to address the health problems of the peoples. Thus, the WHO strategy on Traditional and Complementary Medicine (TCM) 2014-2023 states that member states should promote the strengthening of quality assurance, safety, appropriate use and efficacy and promote universal health coverage through the integration of TCM in the provision of health services and self-health care 26 Regarding the set of plant species used by the patients under study for the treatment of their diabetes, only some of them are widespread in the country, only some of them are reported in different national publications as beneficial for this disease, such as yacen, cinnamon, moringa, caigua, aguaymanto 27 However, there are no known studies of "scientific" rigor that demonstrate the usefulness of most of these medicinal herbs and natural products for diabetes.

On the other hand, in relation to the non-involvement of the specialist of Traditional Medicine in the treatment of diabetes, it is important to highlight, as several publications have long pointed out, that diabetes was not a disease known by the indigenous

peoples of the different continents, including America, until before Colonization and modernity[28]. Likewise, it has been found that the more isolated communities, with less influence of modernity, have lower levels of the disease, being the two most important factors that explain this situation the less physical activity and changes in diet[28].

Since the indigenous peoples, including the specialists of their traditional medicine (privileged depositaries of their culture), do not know this disease, it is logical to assume that they do not have the resources to diagnose and treat this disease, as can be seen from the emissions presented, having to resort to the specialist of Modern Medicine to treat their disease, this in a process of social and cultural interaction[28]. These results on the treatment that the patients of this study give to their diabetes, articulate Modern Medicine with their Andean and Popular Medicine, allows to evaluate and discuss with the specialists and the professional team that attends the patients in the hospitals, in order to evaluate the convenience of an intercultural care model that conjugates the resources of Modern Medicine with those of Andean and Popular Medicine, including the use of some herbs and other natural products.

CONCLUSIONS

The majority of the people in the study are Quechua speakers, female, living in the city of Cusco or in nearby provinces, elderly and in a situation of material poverty, and have been treated for more than five years. This profile is the basis of their identity that will influence their way of perceiving, feeling and acting in relation to their disease.

From the patients' perspective, the cause of their disease - diabetes - is mainly due to a heavy emotional situation they have suffered (fear, anger, sadness) and secondarily to the type of food they eat (a lot of fat, sweets, flour). In relation to the changes that the disease produces in their organism (sugar in the blood, damage to different organs, functional limitations) their perception basically corresponds to the discourse of Modern Medicine. As a whole, it can be pointed out that the ideas that patients have about their illness reflect the influence of Modern Medicine and Andean and Popular Medicine.

On the other hand, for the treatment of their disease, they consider it useful to combine the drugs prescribed by the health service (metformin, glibenclamide and others) with the resources of Andean and Popular Medicine (medicinal herbs and other natural products). In relation to the diet and exercises prescribed to them, the patients recognize their usefulness, although they consider them difficult to comply with. Consequently, it can be argued that patients have a cross-cultural approach to treat their disease.

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Correspondence: *Guisela Yabar Torres*
Address: *Av. Alfredo Benavides 5440, Santiago de Surco 15039, Universidad Ricardo Palma. Lima, Perú*
Telephone: *+51 995309208*
Email: *guichiyt@hotmail.com*

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