# Nursing Assistance and Fragilities in Tuberculosis Diagnosis: Integrative Literature Review

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Abstract—Objective: This study aims to analyze scientific publications on nursing care and fragilities in diagnosis of tuberculosis. Method: It is an integrative review of the literature by searching the databases, with the time frame between the years 2015 to 2020. For the treatment of the data, the technique of content analysis was used, with categorization of the findings. Seven complete original articles were selected that answer the central question of the research, which were grouped in tables according to author, title, journal, year of publication, indexing base, objectives, methodologies and evidence. Results: The analysis of the literature made it possible to elaborate three categories based on relevant points, namely: Category 1- Primary Health Care as a gateway to the diagnosis of tuberculosis; Category 2 - Qualification of nursing actions in the diagnosis of tuberculosis and Category 3 - Factors of delay in diagnosis related to the patient. Conclusion: This study made it possible to understand about the magnitude of the problems inherent to society as a whole, of a political and social order, as well as the health system and the organization of the health services that comprise it and influence the delay in diagnosis. However, the importance of the nurse's performance in the context of Primary Health Care in the process of decentralization of services and in equitable and comprehensive access to the patient is emphasized.

Keywords—Tuberculosis. Diagnosis. Fragilities. Nursing.

### I. INTRODUCTION

Tuberculosis (TB) is still a serious and challenging global public health problem. Worldwide, in 2018, about ten million people became ill from TB and 1.5 million people died from it, with TB being the leading cause of death from a single infectious agent. The disease disproportionately affects males, young adults and low-income countries, pointing to the association between the occurrence of TB and socioeconomic factors (Brasil, 2020).

The disease has affected 8.6 million people worldwide, of which three million have not been diagnosed because they do not have access to health services, which worries the world's health authorities. WHO data revealed that these people were not diagnosed for various reasons, the main ones being the lack of resources to travel to health services, the lack of understanding of the disease, as well as its signs and symptoms, the lack of knowledge of where to seek care and as a result social stigma, which still stands out in some communities (Popolin et al., 2015).

The delay in diagnosis is an important factor for the worsening of the clinical picture, hinders proper management and favors a poor prognosis. The disease has been diagnosed late, in an advanced stage and by hospital institutions, which results in high mortality. According to the national health policy, the responsibility for the

diagnosis and treatment of the disease lies with the Primary Health Care teams (Salzani et al., 2017).

The delay in the diagnosis of TB has been the subject of reflection and the subject of debate about the quality and opportunity of patients' access to health care, in which two types of delay can be linked: the "patient's delay", which refers to duration between the onset of symptoms until the first visit to a health service, and the "delay of the health system", related to the time elapsed between the first contact with a care unit and confirmation of the TB diagnosis (Trigueiro et al., 2014).

The early diagnosis of TB cases and the immediate start of treatment are the main tools and strategies for controlling the disease, however, the delay in these strategies becomes a challenge to health professionals working in AB, considering that they have a responsibility to effectively promote pathology control. Therefore, there is a need for a diagnosis without delay in order to minimize the damage to the health of the individual and the population (Lafaiete et al., 2013).

One of the reasons for the delay in diagnosing TB is due to the delay in suspecting comorbidity. In this way, the health education of the population and the continuous training of health professionals are essential to reduce the delay in diagnosing TB. Lafaiete et al. (2013) states that knowledge is a variable that causes a significant delay in

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the search for a health service. TB education helps individuals to seek health services earlier, in order to contribute to early diagnosis.

In this sense, there is the importance of conducting research in this area, in order to expand knowledge, not only of the epidemiological characteristics of the disease, but also to identify determining factors for the diagnosis and treatment of TB, since, if you create strategies or actions that aim to break the transmission chain, to provide control of this endemic disease (Lafaiete et al., 2013).

Most studies demonstrate that there is a delay in making the diagnosis of TB, taking into account both health services and the patient. According to Belkina et al. (2014) the average delay for patients was 27 days; for the 7-day health service; and the average total delay was almost 2 months. While by Saifodine et al. (2013) the average total delay; health system delay and patient delay was 150 days, 61 days and 62 days, respectively, values which are unacceptable.

For Barrêto et al. (2013) as one of the members of the health team, the nurse is an important professional to carry out TB care as he manages the control actions and understands the complexity involved in this process.

Thus, this study aimed to analyze scientific publications on nursing care and weaknesses in the diagnosis of tuberculosis.

### II. METHOD

The research is of the integrative review type, which has the purpose of gathering and synthesizing research results on a delimited theme, in a systematic and orderly manner, being an instrument for the deepening of knowledge about the investigated theme, allowing the synthesis of multiple published studies and general conclusions about it (Polit; Beck; Hungler, 2011).

Although there are variations in the conduct of methods for the development of integrative reviews, there are standards to be followed. In carrying out this review, six steps were used: selection of hypotheses or guiding questions for the review; selection of studies that will compose the sample; definition of the characteristics of the studies; categorization of studies; analysis and interpretation of results; and, report of the review (Mendes; Silveira; Galvão, 2008).

The guiding question for the elaboration of this integrative review was: What are the scientific productions available on nursing care and weaknesses in the diagnosis of tuberculosis?

The survey of bibliographic studies took place during the month of August 2020 and five databases were chosen: Latin American and Caribbean Literature in Health Sciences (LILACS), Database in Nursing (BDENF), in Scientific Electronic Library Online (SCIELO) and Medical Literature Analysisand Retrieval System Online (MEDLINE).

Following, the validated DECS descriptors were used: "Tuberculosis"; "Diagnosis"; "Fragilidades" and "Enfermagem", using the Boolean operators AND, in Portuguese and English, in the last 06 years, published in the period from 2015 to 2020. A total of 12,776 articles were found, which after reading the titles and abstracts and arrived to the number of 7 articles that showed similarities with the object of this study. These were organized in alphanumeric codes, from TB01 to TB07, for better presentation and understanding of the results.

For data collection, it was decided to use the instrument validated by Ursi (Mendes; Silveira; Galvão, 2008). The analysis of the selected studies took place in a descriptive manner, in order to enable the observance and description of the data, thus, it was possible to gather the synthesized knowledge on the subject in question. From this, three empirical categories were elaborated, which will be presented and discussed below, in which Bardin's content analysis method was used to explore the content. To guarantee the success of this study, it was decided to describe and distribute the results in tables, highlighting the main findings of each research. As for the discussion, it was carried out in a descriptive way, in order to achieve the objectives of building an integrative review.

### III. RESULTS AND DISCUSSION

Tables 1 and 2 show the characteristics of these studies, in which articles in Portuguese (100%), with a qualitative approach (71.4%), published in national journals (100%) and indexed in the BDENF database, predominate. (57.1%). In the present integrative literature review, a total of seven original scientific articles were analyzed, which strictly met the selection of the sample previously established.

Table 1: Distribution of studies.

Nº	Base	Author. Title. Periodic. Year	Objective	Methodology
TB01	SciELO	SÁ, Lenilde Duarte de. et al. ENTRY DOOR FOR TUBERCULOSIS DIAGNOSIS IN ELDERLY PEOPLE IN BRAZILIAN MUNICIPALITIES. Rev Bras Enferm. 2015.	To analyze the factors associated with the gateway to health systems in Brazilian municipalities for the diagnosis of tuberculosis in the elderly.	Survey-type study, with a sample of 91 elderly people, in a population of 706 cases of tuberculosis. Data collection made using an instrument based on the Primary Care Assessment Tool (PCAT) adapted for TB care, with emphasis on the variable gateway. The variables were categorized and compared between the Primary Health Care (PHC) and specialized care (AE) services. Bivariate analysis and Chi-square association test were used.
TB02	BDENF- LILACS	CECILIO, Hellen Pollyanna Mantelo, TESTON, Elen Ferraz, MARCON, Sonia Silva. ACCESS TO TUBERCULOSIS DIAGNOSIS FROM THE HEALTH PROFESSIONALS VIEWS. Texto Contexto Enferm, 2017.	To know the aspects that influence access to the diagnosis of tuberculosis and from the perspective of health professionals.	Descriptive, exploratory, qualitative study. The data were collected in the months of June and July 2013, through semi-structured interviews, with 20 nurses and ten doctors working in the control of TB in the municipalities belonging to the 15th Regional Health of Paraná and, later, submitted to content analysis, thematic modality.
TB03	SciELO	Juliana Teixeira Jales Menescal Pinto, Cláudia Helena Soares de Morais Freitas. PATHWAYS CHILDREN AND ADOLESCENTS WITH TUBERCULOSIS IN HEALTH SERVICES.Texto Contexto Enferm, 2018.	To know the paths taken by people under 15 years of age in search of the diagnosis and treatment of tuberculosis.	Exploratory, descriptive study with a qualitative approach, carried out from March to July 2015 in priority municipalities for TB control. 11 caregivers of people under the age of 15 with TB and 11 nurses from basic health units participated in this research, intentionally selected. For data collection, semi-structured interviews were recorded and transcribed, organized in the Atlas.ti Software, analyzed by thematic content analysis.
TB04	BDENF- LILACS	MELO, Lucila de Sousa Olímpio de. et al. STEPS AND DISCOMPANTS IN THE CARE PROCESS FOR TUBERCULOSIS PATIENTS IN PRIMARY CARE.Enferm. Foco, 2020.	Carry out a diagnosis of the situational reality regarding the monitoring of users with tuberculosis and develop educational workshops focusing on the vulnerabilities detected in the care process.	Research / intervention carried out with eleven nurses in the municipality of Ibiapina-Ceará. The focus group was the technique used to collect the information, which was organized and synthesized with the support of the thematic analysis.
TB05	BDENF	ALVES, Jemylle Carla de França, et al. SOCIOECONOMIC-CULTURAL BARRIERS THAT DELAY THE TUBERCULOSIS	Identify socioeconomic and cultural barriers that delay the diagnosis of tuberculosis.	Descriptive-exploratory study, with a quantitative approach, developed with 42 professionals from the Family Health Strategy, in Parnamirim-RN. The collection instrument was based on The Primary Care Assessment Tool, using the

		DIAGNOSIS. Rev enferm		Likert Scale.
		UFPE on line, 2016.		
TB06	BDENF-	RÊGO, Clara Ceci Diógenes.	The aim of this article	It is a qualitative research of a
	LILACS	NURSE'S WORK PROCESS	is to describe the	descriptive nature, involving 11 nurses
		WITH TUBERCULOSIS IN	nurse's work process in	working in Primary Health Care Units in
		PRIMARY HEALTH	primary health care for	the city of Natal-RN.
		CARE.Revista Baiana de	people with	A semi-structured questionnaire was
		Enfermagem, 2015.	tuberculosis.	used with questions related to the
				directly observed treatment, records,
				human resources, integration between
				programs and the assistance process.
				Data were collected from November
				2013 to January 2014. Thematic content
				analysis was used.
TB07	SciELO	VALENÇA, Mariana Soares. et	The study aims to	An active and passive search was carried
		al. THE PROCESS OF	analyze the process of	out to estimate the magnitude of TB
		DETECTION AND	detecting and treating	among a population of 764 inmates.
		TREATMENT OF	cases of tuberculosis	Simultaneously with the detection
		TUBERCULOSIS CASES IN	(TB) in a prison in	strategies and the clinical follow-up of
		A BUILDING. Ciência &	southern Brazil.	the 41 confirmed cases, participant
		Saúde Coletiva, 2016.		observation and field diary records were
				carried out, which made it possible to
				analyze the potential and limitations of
				the detection and treatment of prison TB.

Source: Research protocol, 2019.

Table 2: Evidence from the studies.

Nº	Evidence
TB01	A statistically significant association was found between the first health service sought and the unit that
	diagnosed TB, showing a better performance of specialized care services for the diagnosis. We conclude that it is
	necessary to improve primary health care services to combat the delay in diagnosing TB in the elderly.
TB02	Three categories emerged that show the factors that positively influence access to diagnosis, the weaknesses in
	this access and the characteristics of the organization of this service. It also points out that the performance of the
	Family Health Strategy favors early diagnosis, although professionals report difficulties in identifying patients
	with signs and symptoms of the disease, either due to unpreparedness or due to the population's lack of
	knowledge about the disease. It is considered essential to inform the community about the disease and strengthen
	the multidisciplinary work.
TB03	Construction of two categories, namely: In search of diagnosis at the various entry points into the health system,
	presenting the services used by caregivers and the aspects that involved the care of these people in these places;
	and Paths taken for TB treatment, showing the accessibility to the Health Care Network in the search for the
	diagnosis and treatment of TB by these people. The gateway for urgent and emergency services, the diagnosis at
	levels of greater complexity in the network and the monitoring by nurses and doctors of two services
	concomitantly show the fragility of the family bond with primary care. It also emphasizes the need to strengthen
	the family health strategy in TB control actions and the dissemination in health units of points of care in the
	network for the proper referral of people under 15 with TB.
TB04	The professionals have difficulties in the development of recommended strategies for the control and combat of
	TB. Issues related to structural and logistical problems also arose, such as limitation of places for exams, lack of
	materials or equipment, inexistence of a connection between services, as well as fear of contagion of the disease.
	The study allowed to subsidize decision making and the definition of intervention strategies, helping to overcome
	the weaknesses of health services.
TB05	Search for the service closest to home "Ever" (47.6%); expense by the user with transportation to the health

	service and difficulty in traveling "Never" and "Sometimes" (28.6%); difficulties in convincing the user to collect		
	sputum for sputum smear microscopy "Almost always" (33.3%). Resistance to the practice of exams an		
	acceptance of the disease in the face of signs and symptoms are social and cultural factors to delay the diagnosis		
	of TB, which is fundamental in the treatment of the disease.		
TB06	The results showed weaknesses related to the records used; absence of a computerized system; absence of		
	periodicity in carrying out the Directly Observed Treatment; overload of the nurse's work and difficulty in		
	articulating the team's actions, which compromises the work process and its results. It was concluded that these		
	weaknesses can interfere with adherence to health policies related to TB prevention and control actions.		
TB07	The development of search strategies, the use of questionnaires to detect symptomatic patients, the fragility of the		
	clinical follow-up of TB cases, the involvement of different workers and the articulation between prison and		
	health services are discussed. Potentials for TB control are to use active search as an inducer of passive detection		
	and screening for symptoms, which, even though interfered by inmates' perceptions of TB symptoms, allowed for		
	increased detection. The prison's functional dynamics make it difficult to insert health routines and may limit		
	actions to control TB and other diseases. In the process of TB control in prisons, the feasibility of effective		
	detection methods is as important as planning it based on the conditions of illness, the network of services and the		
	workers involved.		

Source: Research protocol, 2019.

The analysis of the literature found enabled the development of three categories based on relevant points, namely: Category 1- Primary Health Care as a gateway to the diagnosis of tuberculosis; Category 2 - Qualification of nursing actions in the diagnosis of tuberculosis and Category 3 - Factors of delay in diagnosis related to the patient, which will be developed below.

## Category 1- Primary Health Care as a gateway to the diagnosis of tuberculosis

The article **TB01** shows that the Primary Health Care (PHC) services have limitations to act as a gateway to the health system, especially with regard to the suspicion of TB cases in the elderly and for the early diagnostic confirmation of the disease. The fact that most TB diagnoses in the elderly have been carried out by specialized services is contrary to health policy guidelines in Brazil, since it places the disease as a strategic area of PHC (Sá, et al., 2015).

The organization of care in the health system does not have effective mechanisms to meet the different demands and needs of the elderly population, which requires the definition of management strategies and communication mechanisms between the different services to access TB diagnosis, considering habits and the context where he lives to overcome the fragmented focus of care. It is recommended that health services be reorganized in order to strengthen PHC services as a gateway to the population over the age of 60, which is a vulnerable group to TB (Sá, et al., 2015).

The **TB02** article shows that the early diagnosis of TB may be related to the type of health service sought by the user as a gateway. Thus, for early diagnosis to occur, it is

essential that nurses are able to identify suspected cases, diagnose and treat patients, and have a good integration and knowledge of the service's routine and functioning. In addition, it is necessary to offer adequate services and the availability of diagnostic tests (Cecílio; Teston; Marcon, 2017).

It is pointed out that the rotation of professionals, regardless of the reason, reinforces the precariousness and / or absence of links with patients and the community, in addition to interfering in the process of training and continuing education of professionals, in which the actions are not completed. The new dynamism and the structuring of health services and actions proposed by the PHC, show it as a differential in relation to traditional programs, so that the foundation of the Family Health Strategy is the reorientation of the care model, with the objective of strengthening the preventive care, prioritizing health promotion and education, in addition to reorganizing health services in the search for compliance with SUS guidelines, occupying a privileged place to meet individuals, identify problems and risk situations and provide comprehensive care to families (Cecílio; Teston; Marcon, 2017).

Attention to patients with suspected TB needs a unique offer of actions that enable quick access to diagnosis. Still in this sense, the care for TB patients becomes complex and specific, as it requires a different look due to the magnitude of a socially produced disease.

In order to guarantee good assistance, it is essential that nurses understand the actions inserted in care management, which comprises three dimensions: professional, organizational and systemic. In the first, there is a meeting between worker and user in order to solve the needs listed by the user. The second is understood as a space for the

technical and social division of work, with the implications and professional practices of care. And finally, the systemic dimension, refers to the set of services with their different functions and degrees of technological incorporation and their flows for service with quality and resolution (Cecílio; Teston; Marcon, 2017).

For this, access must be easy and must provide adequate and resolving attention, in addition to ensuring continuity of assistance in specialized services when necessary. Thus, it is essential to develop, through services, the capacities to welcome, hold responsible, resolve and autonomize, incorporating light technologies that materialize in relational practices, such as welcoming and bonding (Cecílio; Teston; Marcon, 2017).

He also reports that some studies have pointed out that TB patients often seek health services and are treated for other ills. It is a vicious circle of repeated visits to the healthcare network without obtaining a correct diagnosis, which results in non-specific antibiotic treatment, delayed diagnosis and difficulty in accessing specialized services (Cecílio; Teston; Marcon, 2017).

The TB03 article allowed to know the paths taken by people under 15 years of age with TB in health services, according to reports from their caregivers and nurses from the Basic Health Units (UBSs). The main gateway to the health system was through the urgency and emergency services of hospitals and Emergency Care Units (UPAs), and the diagnosis of TB occurred in the hospitalization sector of children's hospitals, by means of image exams and pediatric infectologist. The distribution and control of medications were carried out by nurses at UBSs and the monitoring of cases was carried out in two health services concomitantly, since medical consultations were carried out in the services where the diagnosis of TB was made. Some of these aspects show the difficulty of professionals in urgent and emergency services to suspect and carry out confirmatory tests for TB in this age group and the fragility of the family bond with PHC (Pinto; Freitas, 2018).

It is also necessary to strengthen PHC actions by training nurses at different levels of care to increase suspicion and gain a better understanding of specific tests for the diagnosis of childhood TB. In addition, it is necessary to reinforce the importance of PHC as a gateway to the system, with users and professionals, with investments in dissemination, with UBS, to points of attention in the network, essential for the proper referral of people under 15 years with TB (Pinto; Freitas, 2018).

### Category 2- Qualification of nursing actions in the diagnosis of tuberculosis

The **TB02** article addresses the nurse's care practices in which she must promote the active search for Respiratory Symptomatics (SR), as it is considered a public health activity and must be carried out permanently by all health professionals. However, the need to prepare these professionals to perform their work within the programmed actions of the policy is evident. Thus, often, TB patients go unnoticed in services due to excessive demand and the lack of doctors in some teams, or due to the lack of training of professionals to identify SR (Cecílio; Teston; Marcon, 2017).

When analyzing the article **TB04**, it was found that, in most cases, TB care and control actions are limited to consultations carried out in offices and often individually. The assistance provided to this patient comes from spontaneous demand or referral of secondary care, which is considered inefficient to interrupt the transmission chain, since the control is based on the search for cases, early and adequate diagnosis, its treatment until the cure, avoiding possible illnesses. This observation leads to the reflection that health actions need to be intensified from the perspective of comprehensiveness, allowing the expansion of care for users with TB, considering the complexity of the health-disease process and its various dimensions (Melo, et al., 2020).

Regarding strategies aimed at controlling and combating TB, it is important to note that the World Health Organization has established policies and strategies to strengthen the response capacity against TB. The most recent of these is the Directly Observed Treatment (DOT), the main objectives of which are patient compliance to standardized treatment with supervision of medication taking, social support, prevention of the appearance of drug-resistant strains, reduction of abandonment cases and increased probability of the patient's cure (Melo, et al., 2020).

In this sense, health actions need to be intensified from the perspective of comprehensiveness, allowing the expansion of care for users with TB, considering the complexity of the health-disease process and its various dimensions (Melo, et al., 2020).

The difficulty in seeking SR in the demand for services is directly associated with the way in which assistance is provided, in the lack of commitment, involvement and lack of dialogue with the user, with symptoms unnoticed (Melo, et al., 2020).

It is understood that the incorporation of TB control activities, especially the active search for SR, is not performed efficiently as a routine in the service. Therefore,

it is necessary that the teams start to have TB control incorporated into their daily work routine. If this search is not done, there is no way to close the cycle of early detection, treatment and cure (Melo, et al., 2020).

The lack of input can delay the diagnosis and the start of treatment, in addition to prolonging the time of transmission. The availability of inputs, therefore, is considered of vital importance to the sustainability of DOT, especially with regard to the viability of bacilloscopy. Sometimes TB treatment is hampered by the nurse's difficulty in dealing with his limitations, such as fear of acquiring the disease, either because he does not know how to face it, because of prejudice or because he does not have specific knowledge of the disease (Melo, et al., 2020).

In general, for the work of the PHC nurse to be qualified, based on the priority care for health promotion and disease prevention at all levels, it is necessary that this professional improves his knowledge with the incorporation of advanced practice which strictly monitors people with chronic diseases and tenuous acute pathologies, according to pre-established protocols (Melo, et al., 2020).

The results of this study reflect a practice that needs to be strengthened through permanent education, since inequities are still present among professionals in relation to instructional levels in Brazil, thus requiring a greater role for this subject in the face of attitudes and decision making. PHC decision-making in the context of disease prevention and health promotion, executing what is ideal, as opposed to the real, always instigating evidence-based practice (Melo, et al., 2020).

The **TB06** article addresses the description of the nurse's work process, in which the development of managerial and care actions and activities carried out with people with TB is identified. These actions and activities are often restricted to this professional category, due to the absence of involvement of other categories, mainly in relation to DOT, the recording of information in the green book and the holding of consultations (Rêgo, et al, 2015).

With regard to DOT, it was identified in the study by Rêgo et al. (2015), which is considered unnecessary by nurses to adhere to treatment. As a consequence, according to the guidelines of the Ministry of Health (2011), this can lead to a decrease in cases of cure, an increase in abandonment, resistance to the medication and, mainly, the rupture of the patient / professional bond. It was also observed that access to information through the records made by nurses is available to everyone on the team.

However, the fact that the records used are not computerized in all health units hinders the interaction

between the reference services and the units in the patient care process. There was also difficulty in articulating the team's actions and overload of the nurse's work, with compromised care provided (Rêgo, et al, 2015).

It was concluded that the description of the nurses 'work process in PHC with the person with TB showed weaknesses, as well as nurses' work overload, which can interfere in adherence to health policies related to preventive and disease control actions (Rêgo, et al, 2015).

The **TB07** article highlights the potentialities of the TB control process within prisons where nurses must be engaged in strategic activities such as active search, as an instrument to increase passive case detection, as well as adequate communication of results. laboratories aiming at the immediate beginning of the treatment. For this, clinical evaluation was used by means of a questionnaire, which contributed to triple the detection of TB cases, which made it possible to recognize the weaknesses of this type of screening (Valença, et al, 2016).

The difficulties encountered in the implementation of the TB control process were linked to the interaction between prison and other health services, especially for exams and clinical follow-up inside and outside the prison, which inevitably had a negative impact on the closure of cases (Valença, et al, 2016).

The assumption that the control of TB, when approached by the detection and treatment of cases, has the planning of its actions contextualized to the particularities inherent to a specific prison environment, as well as to the network of services and workers involved in the control and TB research in each municipality and / or macroregion (Valença, et al, 2016).

### Category 3- Patient-related diagnostic delay factors

In the **TB05** article, it was observed that, currently, social, economic and cultural barriers still interfere in the search for care and consequently delay the diagnosis and treatment of TB. However, the fact that they have access to the care units within their district, with no need for expenses to get from the place of residence to the UBS, in addition to the support they receive from health professionals and mainly because they have free medicine during all treatment of the disease, exclusively in the unit, favors the reduction of other barriers mentioned (Alves; Paulo; Santos et al, 2016).

Accessibility is not only related to getting to the service, but, everything that professionals will do so that the user remains in the unit from diagnosis to the end of treatment. TB control is linked to the improvement of factors included in health services, such as a reliable information system, expansion of decentralized care that

allows the implementation of supervised treatment, training of professionals, strengthening of teamwork and optimization of referral and counter-referral. The results of the study state that the late diagnosis of TB occurs, mainly, due to cultural factors until the first search for medical assistance. For professionals, users choose to look for UBS as a gateway when presenting any symptoms, however there is little demand that prefers alternative therapies (Alves; Paulo; Santos et al, 2016).

Most of the time, what determines the search for UBS is the way users face the disease. For there to be contact with these units, it is necessary to have confidence and it is up to the health professional to interact with this individual, since there is almost always resistance to treatment adherence by the same and it will be up to health professionals, including nurses, offer the provision of qualified assistance. TB treatment attracts significant costs, both for the family and the patient, and each expense that arises represents a barrier of access linked to social and economic factors. In reality, the user is not always able to afford additional expenses, such as transportation, looking for a UBS that is close to their home, a fact presented in the results with the low percentage of the number of users who pay for transportation to arrive up to that unit (Alves; Paulo; Santos et al, 2016).

It was observed that the economic factor tends to minimally influence the early diagnosis of TB, considering that over the years improvements have been achieved that help the bearer of the disease to face expenses that may arise and difficulties faced related most of the time by excessive working hours or any other factor that does not allow you to attend the unit. Cultural and social aspects are more decisive, given that the user refuses to undergo basic tests to detect the disease, such as smear microscopy due to lack of knowledge resulting from few health education actions (Alves; Paulo; Santos et al, 2016).

As a way of easing barriers in treatment, it is proposed to practice workshops with FHS professionals in order to discuss the issue, raise possible critical nodes in care, plan interventions and give feedback to clients, who are the center of care (Alves; Paulo; Santos et al, 2016).

### IV. CONCLUSION

From this study it was possible to understand about the magnitude of the problems inherent to society as a whole, of a political and social order, as well as the health system and the organization of the health services that comprise it and influence the delay in diagnosis. However, the importance of PHC in the process of decentralization of primary care services and in equitable and comprehensive access to the patient is emphasized.

The professionals' speeches demonstrate that there are still obstacles to full access to TB diagnosis, largely due to the incompleteness of decentralization to the municipalities. Decentralization allows equitable and comprehensive access to patients close to their home, however, centralization has offered greater availability of resources for diagnosis. Among the other factors, the team's difficulty in suspecting TB is noted, even in the face of signs and symptoms, and in finding respiratory symptoms, whether due to lack of information from the population or the team's lack of preparation.

Furthermore, the need to pass on information about the disease to the general population is reiterated, more specifically about signs, symptoms, form of transmission and treatment, including emphasizing the possibility of a good prognosis when carrying out the appropriate treatment. Such clarifications are necessary to alleviate the population's stigma about the disease and reduce the patient's delay in seeking care, thus achieving a quick diagnosis and consequently treatment with fewer complications.

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