



Assimilating the impact of diabetes mellitus in children under the perspective of mothers*

Aprender as repercussões do diabetes mellitus em crianças sob a ótica das mães

Aprender las repercusiones de la diabetes mellitus en niños bajo la perspectiva de las madres

Paulo Cesar Teles Correia Júnior¹, Sandra Mara Pimentel Duavy Pereira², Vitória de Cássia Felix Almeida², Ana Raquel Bezerra Saraiva³, Ana Maria Parente Garcia Alencar²

Aimed at assimilating the impact of diabetes mellitus in children and in the family life under the perspective of the primary caregiver. Descriptive qualitative research conducted with seven mothers in a center of reference in Crato, CE, Brazil, in the months of June and July, 2011. With these major thematic categories: characterization of family caregivers; implications of diabetes mellitus in the child's life under the perspective of the mother; family experience facing diabetes. Behavioral changes in children such as aggressiveness, feelings of denial and fear were assimilated. It was also observed that the care of diabetic children falls back on the mother. Thus, we see the need to implement a multidisciplinary, interdisciplinary and humanized care, aimed at patients with diabetes mellitus and their caregivers, with emphasis on health education.

Descriptors: Diabetes Mellitus, Type 1; Child; Nursing; Comprehensive Health Care.

Objetivou-se apreender as repercussões do Diabetes Mellitus em crianças e na vida familiar sob a ótica do cuidador principal. Pesquisa descritiva com abordagem qualitativa, realizada com sete mães acompanhadas em um centro de referência do município do Crato, CE, Brasil, nos meses de junho e julho de 2011. Com as principais categorias temáticas: Caracterização do familiar cuidador; Implicações do Diabetes Mellitus na vida da criança sob a ótica da mãe; Vivência da família frente ao Diabetes. Foram apreendidas mudanças comportamentais das crianças, tais como: agressividade, sentimentos de negação e medo. Observou-se ainda, que os cuidados das crianças diabéticas recaem sobre a mãe. Desta forma, percebe-se a necessidade de implantação de uma assistência multiprofissional, interdisciplinar e humanizada, direcionada aos pacientes com Diabetes Mellitus e seus cuidadores, com ênfase na educação em saúde.

Descritores: Diabetes Mellitus Tipo 1; Criança; Enfermagem; Assistência Integral à Saúde.

El objetivo fue apreender las repercusiones de la Diabetes Mellitus en niños y en la vida familiar bajo la perspectiva del cuidador principal. Investigación descriptiva, cualitativa, realizada con siete madres acompañadas en centro de referencia de Crato, CE, Brasil, en junio y julio de 2011. Con las principales categorías temáticas: Caracterización del familiar cuidador; Implicaciones de la Diabetes Mellitus en la vida del niño bajo la perspectiva de la madre; Experiencia familiar frente a la Diabetes. Fueron apreendidos cambios de conductas de niños: agresividad, sentimientos de rechazo y miedo. Se observó que la atención a niños diabéticos recae en la madre. Por lo tanto, se percibe la necesidad de implementar atención multidisciplinaria, interdisciplinaria y humanizada, dirigida a pacientes con Diabetes Mellitus y sus cuidadores, con énfasis en la educación en salud.

Descritores: Diabetes Mellitus Tipo 1; Niño; Enfermería; Atención Integral de Salud.

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¹Faculdade Integrada de Patos. Patos, PB, Brazil.

²Universidade Regional do Cariri. Crato, CE, Brazil.

³Faculdade Leão Sampaio. Juazeiro do Norte, CE, Brazil.

Corresponding author: Vitória de Cássia Félix de Almeida
Rua 1, 28, Apto 301 - Vila Alta. CEP: 63119-270. Crato, CE, Brazil. E-mail: vit_vitoriafelix@hotmail.com

Introduction

Diabetes Mellitus (DM) is a group of metabolic diseases characterized by hyperglycemia, resulting from deficiency in the secretion and/or action of insulin. It involves specific pathogenic processes, such as the destruction of the beta cells of the pancreas, resistance to the action of insulin, disorders of the secretion of insulin, among others. With this it can generate complications, malfunctions and insufficiency in several organs, being one of the main causes of renal insufficiency, amputation of the lower limbs, blindness, cardiovascular disease and mortality⁽¹⁻²⁾.

According to the World Health Organization (WHO) there are in the world more than two hundred and twenty million people with DM and it is estimated that up to year 2025 this figure will exceed three hundred million bearers of the disease. In Brazil there are approximately eight million bearers of diabetes and from these, 5% to 10% are attacked by DM Type 1 (DM1), frequent in childhood and adolescence, whose incidence has increased considerably⁽³⁻⁴⁾.

So, due to the clinical manifestations each time earlier, the loss of the quality of life of this young population and the risk of morbi-mortality are considered higher. Still according to the WHO, DM1 is one of the most important chronic diseases in childhood worldwide, once it has a high incidence in this age range. The *International Diabetes Federation* (IDF) reveals that more than seventy thousand children and adolescents are attacked by DM1 each year⁽⁵⁻⁶⁾.

The moment of diagnosis of DM in childhood is a profound landmark in the life of the family, dividing them into before and after the discovery of the disease⁽⁶⁾. After the diagnosis of the child in the condition of chronic patient, the families have their behavior modified; their reaction facing this experience can bring them feelings of guilt, fear, depression and apathy, besides threatening the routine.

There are four actions that can help the survival of the bearer of DM1 as follows: primary prevention; tracking and early diagnosis (which is associated to secondary prevention); the guarantee of access as well as the use of the health service; and even the quality of care rendered both by the multi professional team as well as by the family caregivers⁽⁷⁾. Therefore, the family support is necessary, especially from the parents and from the multi professional team so that the child can have a balance between the treatment and the theoretical and practical knowledge regarding diabetes.

It is known that the treatment of DM1 is complex, painful and requires discipline and it has the family as a fundamental component for the acceptance of the diagnosis, the treatment and psychological support to the child⁽⁶⁾. In this context, assimilating the impact generated by DM on the patient and on the family life under the perspective of the primary caregiver is fundamental to render efficient assistance. Furthermore, understanding the changes generated by DM1 in this age range is important, once it arises the attention of the health professional to plan systematized and integral assistance.

The study aimed at assimilating the impact of Diabetes Mellitus on children and on the family life under the perspective of the primary caregiver.

Method

This is a descriptive research, with qualitative approach, made in the Center of Reference in Diabetes, in the county of Crato, Ceará, Brazil, in the months of June and July, 2011. Medical records of children diagnosed with DM1 assisted for at least one year were selected. Once the researchers had the list of the eligible patients, the parents/responsible subjects for the children were invited to participate in the research during the second doctor's appointment. So, the subjects of the study were seven mothers responsible for the care of the children.

The collection of data was made through semi structured interview, using a digital recorder. The

instrument is the register of the information on the subject of the research such as: age, kinship, profession and age of the child. The questions were as follows: Which are the changes on behavior of the child after the diagnosis of DM? Which interventions would you make in the treatment of your child? What is the reaction of the child concerning the educational processes for self care? How was the disease discovered and which feelings were awakened? What changes and in which way does DM interfere in the family life? How do you see the assistance given to your child? How do you describe your life today? The interviews were made in a specific venue for this purpose.

It is a qualitative analysis of the data made according to the guidelines of the qualitative method⁽⁸⁾ with: organization, classification in empirical categories, synthesis and interpretation of the data, which were transcript and read painstakingly. The information, obtained through the statements of the subjects, was presented through categories.

In compliance with the guidelines of Resolution 196 of the National Council of Health⁽⁹⁾, on researches involving human beings, this project was approved by the Committee of Ethics in Research of the Universidade Regional do Cariri - URCA, according to legal opinion 19/2011. To assure secrecy and anonymity, the participants were identified by Interv., followed by numeric order.

Results

Seven subjects were interviewed, mothers of children with DM, which places the mother as the primary caregiver. Concerning age, there was a range from 31 to 64 years. Three were from 30 to 44 years old, three from 45 to 59 years old and just one older than 60. Regarding schooling, six finished high school and one, kindergarten.

Concerning children bearers of DM1, these were between 7 and 11 years old, two were 7 years old, one was 9, two were 10 and two were 11, five were female and two were male.

The data collected were organized into themes: Implications of DM in the life of the child under the perspective of the mother; apprehension related to behavioral changes, feelings, reactions and control of DM were evident; Experience of the family facing diabetes, whose assimilation was related to the discovery of the disease, acceptance/rejection of DM, financial issues, leisure and relationship and assistance of the therapy.

Discussion

Implications of DM in the life of the child under the perspective of the mother

When DM is present in childhood, researches show the mother as the primary caregiver and her guidance is necessary, once she will take care of her child⁽¹⁰⁾. Educational action when taken by able health professionals turned to the care of bearers of DM1, positively contribute to improve the metabolic control of the patient, once the acquisition of knowledge on the disease favors the changing in the habits of life and management of the disease itself⁽¹¹⁾.

With that, the success of the treatment will depend on personal motivation, acceptance and family support to the patient⁽⁷⁾. When observing a family in which one of the members has DM, it is noticed that not only does the diabetic patient feel the consequence of being sick, but all of them start experiencing this new reality. The mothers routinely alter their activities for the welfare of the sick child, favoring the treatment and the assistance of the chronic disease once the transformation occasioned by the diagnosis of DM is inevitable. It is worth adding that they take their children to the doctor's office, they make observations and participate in the guiding groups.

Schooling is an important factor in the learning and performance of care due to the complexity of the instructions and information that the caregiver must assimilate. There is difficulty both for self care as well as for maintaining the adequate metabolic control

due to the changes in the socio-emotional, cognitive and physiological aspects which permeate the period of adolescence⁽¹²⁾. Therefore, low schooling can make learning difficult, once facing therapy complexity, the family needs complex abilities to take and teach care to the child and to the adolescent.

When questioned on the behavioral changes of the children from the diagnosis of DM1, the interviews reported aggressiveness, nervousness, restlessness, feelings of denial and fear ... *changed. Like, sometimes she is very aggressive, when it is high (the blood glucose). She gets very quiet (Interv.3)...I watched him excited, trying to live the life of other children. He was very afraid of everything, became more fragile, after the disease (Interv.7)...I noticed she was more nervous, stressed, especially when blood glucose was high. She gets restless, cries, fights, shouts, totally out of control (Interv.4)...I saw she was more nervous, aggressive. The main change was nervousness (Interv.1).*

Behavioral changes can be detected when the patient is diagnosed with DM such as revolt, despair, anger, frustration, nonconformism, uncertainty, doubts, fear and the most common feeling at this initial moment of discovery of the disease, is denial⁽⁷⁻¹³⁾. These changes can happen both in the identification of the diagnosis as well as in the assistance for a longer period. However, as reported by one of the interviewees, there was no behavioral alteration in the child after the diagnosis of the disease. ...*Well, the change he had was that before he was stronger... but no change in the way he is (Interv. 6).*

Regarding the reactions of the diabetic patient facing the implantation of the educational process for self care, the interviewees reported that they reacted well, accepting the instructions and practicing self-care daily. ...*that's him. Sometimes, when I am at home I myself inject insulin in his arms, but he checks blood glucose, and takes insulin following the schedule. He knows that he has this problem, but he was never a burden, he knows what he can or cannot eat (Interv. 6). That's him, learned well, he already says 'not mum let go I know'. He went to health unit to train. When he is losing weight he knows, he learnt and does it well (Interv. 7). ...She is polite, injects insulin in her aunt, checks her blood as well and her aunt's. She accepts this as normal (Interv. 5).*

So, in order to have control of glycemic rates, several actions must be taken, such as: care with food, physical activity, self monitoring and medication. The patient must transform these actions into routine of life⁽⁷⁾. At this point, the systematic care is directly linked to the caregiver.

So, the understanding of the need to control diabetes and the capacity of taking decisions regarding the treatment begins in childhood around four years of age, enhancing it according to his development, experiences and transference of responsibilities from parents to children. The interviewees still report that despite these difficulties, the glycemic and dietetic control are responsibilities which gradually the children from 8 to 11 years old, must start to assume, at first sharing them with their parents⁽³⁾. So, the child starts to be independent and becomes secure, experiencing situations in the absence of the parents, like at school or at parties.

In parallel, two of the interviewees reported negative reactions as to the implantation of educational processes and self care. ...*I have a brother who is a doctor and helps me a lot in this sense, he researches a lot and always talks about eating. But she does not react well, doesn't accept and doesn't practice the education of her treatment (Interv. 3). ...She doesn't do it. She eats too much, she doesn't do the exams she is suppose to. She was polite, had self-control, made the exams, took the medicine, the insulin. She skips, doesn't take it. It would be ideal if she took and made the exams (Interv. 4).*

The guidance, as well as the management of the disease in this population has been seen as a challenge both for the children due to the presence of inadequate knowledge as well as for their family members, due to the complication in a long term range⁽⁴⁾.

In this sense, the family is one of the main instruments of relationship and an effective allied in the treatment of a chronic disease such as DM. What can be seen both in the aspect of social affective relationship as well as physical, becoming a powerful strength that influences in the promotion, protection and recovery of health. So, the patient experiences transformations in his role, becoming the center

of attention, anguishes and apprehension of these family members. Because of that, the parents punish themselves for the treatment and restriction imposed by the disease and end up following a protectionist policy regarding the child, make him totally dependent⁽¹⁴⁾.

However, the necessary daily tasks for self care, the non acceptance of the disease, the fear, deficiency in the technique of self injection and insufficient resources can provoke annoyance in the patient, making the adequate management of the disease difficult⁽⁴⁾. So, he loses his patience, he becomes angry with insulin, the treatment, the diet, the fact that he cannot eat sweets and, sometimes, he stops the care because he cannot stand an longer⁽⁷⁾.

At the moment the mothers were questioned about what they would do in case they could change something in the treatment of their children, the interviewees agreed that they would change the treatment, withdrawing or decreasing the quantity of injected medicine *...the only thing that I would take out, it would be these injections, because it is painful both for us as well as for him. Then I would prescribe medicine to drink, to take (Interv. 2) ...I would take out the insulin, find a treatment that wouldn't need injections every day from morning to night, because of the pain. The person is pierced too much (pierced)... (Interv. 1). ...The only thing I would change so that he wouldn't be pierced so many times a day. When I say time of insulin he says: ouch! my little fingers! (Blood glucose) (Interv. 7).*

One of the main problems experienced by the diabetic patients and his family caregivers is the administration of insulin and monitoring of blood glucose, due to the innumerable daily piercings, an average from six to seven. The child does not like insulin shots, he feels bothered because they are painful, because he knows that he must adapt himself, because there is no alternative, so the parents inject insulin in the child, suffering for 'hurting' him and they feel 'slaves' of the insulin, once they can never forget its existence⁽⁶⁻⁷⁾.

Concerning the quality of life of the patients with DM, the losses are countless, both for the

total physical functioning, by the side effects of the medication, as well as in the changes in the style of life imposed by the treatment. In this sense, complications are included which can range from short to long term. Another delicate aspect is the psycho-emotional one which can be related to the worries, frustrations and loss of hope due to the chronic aspect of the disease as well as the overload, breakdown or discouragement with its management. The social aspects are related both to the financial cost of the treatment of the disease, as well as to the acceptance and the level of conflict of the interpersonal and family relations generated by this new dynamic⁽¹⁵⁾.

Still under this aspect, the interviewee answered that if they could change anything in the treatment it would be the cure of the disease: *...Change? I wanted cure, the cure (Interv. 5). ...I don't know like, if I could really, if it were in my reach, I would do anything that would cure, pursuit cure (Interv. 4).*

In these statements the 'hope of cure' is noticed, a feeling that is shown as a kind of support for them to adapt them to the new structures which are being remodeled in their lives.

The interviewees project the dependence of the patient concerning the family, which makes the treatment sometimes painful, once it demands constant care for the efficient control of blood glucose.

So the child, in the absence of the mother, expresses a feeling of ambivalence at the moment of the injection of insulin, which is necessary, but painful. The parents feel as if they punished the child for having eaten something he should not have, making the feeling of finding cure and minimizing pain present at all times⁽¹⁶⁾.

Experience of the family facing diabetes

When asked about the diagnosis of the disease, the care giving mothers reported to have discovered the disease through the observation of the classic symptoms of DM1 such as polyuria, polydipsia, polyphagia and involuntary loss of weight *...he was strong,*

fatter and lost weight from one hour to the other. He would drink a lot of water, sometimes he woke up wet, and he woke up. Because my mother is diabetic she already knew the symptoms (Interv. 7). ...she was a little fat, you know? Then the girl would eat all the time and started to lose weight, then I noticed through her pee, was a lot of pee, and she drank a lot of water (Interv. 2). ...she was eating a lot and losing weight, taking a lot of liquid and peeing a lot. She was always drinking two types of liquid, several times a day, and water (Interv. 4). ...she would pee a lot, and then in a second, everything again, and eating. I started to see her losing weight, and then I became desperate (Interv. 1).

The classical symptoms of diabetes are: polyuria, polydipsia, polyphagia and involuntary loss of weight. Other aspects of clinical suspicion are worth outstanding: fatigue, weakness, lethargy, vulvar and cutaneous pruritus, balanoposthitis and repeated infections⁽¹⁾.

One of the interviewees affirmed to have discovered the disease after a urinary infection in which the child had to go through laboratory exams, which confirmed the diagnosis: *...through a urinary infection, she was three years old, did not pee on the bed any longer, and she was five she was peeing again,....when we went to the doctor it was because she had a very serious urinary infection, than the diagnosis was diabetes (Interv. 3).* It is common to observe the discovery of some diseases in the course of another event, through hospitalization or routine exams.

When analyzing the feelings of the family caregivers at the moment they knew the diagnosis of DM1, we could identify that all the interviewees presented negative feelings and significant suffering *.... everybody got desperate. I was desperate (Interv. 1)...immense sorrow, you know, don't you? A thing like that involves the whole family. Actually, the world falls down, it is incredible, it moves us very much, you know that it is a disease for the whole life (Interv. 3). ...heartbreaking, isn't it? Very sad to know that diabetes is a disease that has no cure (Interv. 4). ...at the time I saw the exam I felt such anguish, agony, almost died. Why him? So small... (Interv. 6).*

With this, when facing the problem, the family is in a frightening situation and sometimes unknown, but little by little, they appropriate the necessary knowledge and the extreme seriousness of the

disease⁽¹⁴⁾. So they present feeling of anguish, sorrow, despair and dislike for life. They report that there are manifestations of incredibility regarding the diagnosis and fear of losing the son, they present initial reactions such as chock, confusion, fear, anxiety, anger, conflict, tension, having reflex in all family members⁽¹⁰⁾.

It is important to add that the interviewees, besides reporting negative feelings, express clear ideas of conformism and acceptance of the disease. *...I get sad. I keep thinking why this happens to him, still a child. At age six, but today we are more conformed (Interv. 7). ...I wanted to die. I got desperate, but, afterwards I saw it was something normal, that the disease has its consequences, but we could lead a normal life (Interv. 5).*

This fact can be justified because these children are older and with longer time of diagnosis. From the moment in which the family starts to live with the diabetic child and gets involved in daily care, the feelings of fear, denial and despair end up being transformed in acceptance⁽¹³⁾.

It is noticed that the discovery of diagnosis is the most difficult thing, once it awakes feeling of denial in some parents, once they do not accept the disease of the child. However, along the years they noticed that the care is not just providing medicine and monitoring his food, but helping him to understand the disease and the treatment as a new condition of life⁽¹⁴⁾.

When questioned about the possible changes occurred in the relationship among the family members, after the beginning of the disease, it was noticed that they assimilated expressions understood as a situation of union facing experience. *... Everybody got involved. Everybody was close, everybody is caressing, everybody was still closer, and everyone participates, the brothers, the cousins, everyone (Interv. 2). ...the only change was that we got closer. We were close, but then we became closer to take care of her (Interv. 4). ...so the brother said: 'Mom let's be careful'. There wasn't anything negative no. What they did was to help, thank God everyone agrees on this (Interv. 7). ...everyone got worried to see her that way. We became closer because of her, for taking care of her (Interv. 5).*

It is observed that when the family lives with a member with DM1 the whole routine is turning

around the care of the child. All of them change their behaviors, turning to a common point, the diabetic child; they become closer and cooperative, working with the same objective and leaving the remaining worries to his everyday lives aside⁽¹³⁾.

It was highlight that this attention turned to this member of the family makes the other children of the couple feel left aside, and many times, they feel jealousy and injustice. The following statement reports the situation of problems at home with the twin brother of the child. *...she is his twin sister. And the care was turned to her, we had problems with him. Because he started to feel rejected. I was forced to reconsider what I was doing* (Interv. 3).

As to the manner through which DM1 interferes in the life and family routine, the reports about the changes of food and in the financial impact facing the expenditures required by the disease were unanimous. *...we have that concern not to allow sweets; we try to have the same food he needs. We try to make him exercise, we try to lead the same routine as his* (Interv. 7). *...we started to eat everything like her, more vegetables, more diet food. I used to love spaghetti, these sweets things and I don't cook them anymore. Everyone eating just like her* (Interv. 4). *...It interferes, like, because sometimes we want to eat something that we like and then we worry for having that there, because of her* (Interv. 1). *...here at home we don't make a cake, no sweets, a lot of things we stop cooking. When we go to supermarket we don't buy certain things* (Interv. 3).

Once established the diagnosis, the family establishes new dynamics for the child, imposing a restricted food diet, injections of insulin and constant supervision. Even so, they live with constant fear of occurring complications (severe hypoglycemic and hyperglycemic crises) and, at this moment not being close to help them⁽¹⁴⁾. When the mothers perceived the first symptoms and that something strange is happening with her son, they leave on the pursuit of the treatment and at this moment the main difficulties are found, both in the access to health services and in the implantation of the diet⁽⁷⁾.

A study shows that the best results, when dealing with the child with DM, go through the educational process turned to glycemic control,

both in the beginning and throughout his life. This process, elaborated through the combination of educational and behavioral guidance, completely turned to the social cultural context of the patient, allied to the support for the insulin treatment. For such, the main objective of learning is to show the bearer of diabetes how to take the right decisions in his self care, which will make him a supervisor of his own treatment⁽¹⁷⁻¹⁸⁾.

Along the factors that influence the food reeducation of the diabetic, the financial factor is highlighted, once healthy food becomes expensive. Regarding the financial aspects, all the interviewees reported an increase in the family budget. *...expenditures increased. Because the things of diabetic are expensive, he likes chocolate powder and the price is very high for those who have these problems* (Interv. 6). *...increased the expenditures very much...Now, the test strips and the insulin I get them from the health unit, but it also increased because of the food, because diet food is too expensive* (Interv. 2). *...we spend too much. We had to make a loan to solve this problem* (Interv. 5). *...it interferes in the expenses, because food for a diabetic person has to be like that, fruits, green leaves, vegetables and this is expensive and unfortunately the income is low* (Interv. 1). When working with DM1, we must consider the family income, once the availability of food, the quality of housing and the assistance to health depend on this⁽¹⁰⁾.

Therefore, the financial cost is a determinant factor for the family members to adhere to the treatment of a diabetic child, once the long term treatment makes financial dynamics onerous, due to the acquisitions of flasks of insulin, glucometer and its strip (average of three strips a day) and the syringes to apply medication and expenditures with food. The Unified Health System (SUS) guarantees and provides the input for the monitoring of blood glucose, besides the medication and insulin to be taken but there is occasional delay in the delivery which requires the acquisition of the material by the family members in the beginning⁽¹⁹⁾ of the disease.

Still in the routine of the family, it was observed that the interviewee reported changes regarding the leisure and social relationships. *...we*

take a walk, but try not to go to a snack bar because he can't (Interv. 6). *...you go to a club, to a birthday of a friend and then you're obliged to take a soft drink along, because not always they serve what you can drink. We have to take the snack and also the insulin. It interferes in everything, really* (Interv. 3). It is known that the treatment unleashes limitation to the social life of the family, once they stop going to parties due to the exposition of the patient to food that can't be eaten. The diabetic son is also deprived of going out alone, once the parents fear the possibility of the occurrence of hypoglycemia⁽¹⁰⁾.

For the development of a therapeutical assistance it is necessary that there are abrupt changes in the style of life and adherence to the medical treatment. Such practices are not always accepted and done easily, especially concerning children. So, the adequate professional assistance becomes necessary including the patient and his family *...the assistance is fine. He loves the doctor. We received the strips, the insulin, the lancets* (Interv. 7). *...yes, her doctor. Very good assistance, she is a very good doctor. Today I receive everything from the SUS, the strips, the insulin, there in the health unit* (Interv. 4). *...his assistance is very good, the doctor is from the health unit and it's very good. We get everything from there, every month of the year* (Interv. 6). *...it is fine, there, at the health unit. The assistance was there from the beginning. I received a device and every month the strips and the insulin* (Interv. 1). It is observed that the caregiver mothers report assistance exclusively provided by the doctor and rarely by another health professional. When DM is present in childhood and adolescence these people must receive integral and differentiated assistance, which must be provided by a multi-professional covering all the physiopathological elements and the psycho-social and educational elements in health⁽⁷⁾.

On the other hand, the preparation of the health professionals, especially the nursing team, must be based on a choice of interventions which favor the full growth and development of the child, even facing feelings and situation considered hard⁽²⁰⁾. Therefore, this differentiated look makes the nurse a key piece of the treatment. However, the lack of inter professional

communication is shown as one of the difficulties related to the care and management of diabetes.

One of the interviewees reported a negative comment about the professional assistance regarding the child and the family, highlighting that she makes use of private health plan and they go to the health units only for the routine appointments to receive the medicine *...she has a psychologist, she is assisted by a nutritionist, there is a doctor. We pay for the health plan and we have this assistance. But here what we need is a health unit like the one in Barbalha, CE, Brazil. Which has integral assistance, psychologist for the family, nutritionist, everything, and here we need one* (Interv. 3). The importance of a psychological and multidisciplinary approach for the diabetic patient and his family members is highlighted, in search of better clinical control, prevention of long term complications and improvement of the quality of life⁽²⁰⁾.

Concerning the aspects related to the current life, the interviewees reported emotional tension, worries with possible complications that may attack the patient. *...she didn't get worse, but today we pay more attention. Especially because she was already hospitalized in an ICU. You are always tense* (Interv. 3). But, despite the difficulties faced, the daily routine becomes normal...*a normal life. There is this obstacle, but thank God, we managed to overcome, nowadays everything is normal* (Interv. 5)...*she is normal, because I learned and I got used to all her things* (Interv. 4). *... Normal, she is fine thank God, even with the obstacle we have, but we overcame* (Interv. 2). *...She is the same thing, life became normal* (Interv. 1). There is a register that the positive facing can be observed, from the moment that there was the search for information by the family caregiver, and the attempt of adaptation of the family routine, aiming at providing a better quality of life for the child⁽²⁰⁾.

When leading with health education for family caregivers of children with DM, it must be considered that all the health teaching must be adopted according to their reality, experiences, including living and knowing their own disease, besides the vision of diabetes among all those who surround them and their feeling regarding the pathology⁽¹⁷⁾

Final Considerations

It is verified that Diabetes Mellitus interferes not only in the child, but also in her family and social group, imposing profound modification in the life style, and the main care are under the mother's responsibility. A range of feelings emerged due to the treatment, especially for the administration of insulin and monitoring of the blood glucose. So, the diagnosis of DM is quite an impacting moment both for the bearer as well as for his parents. That is, DM becomes the center of family life, thus emerging a feeling of union among the family members, with the purpose of taking care of the diabetic child.

The mothers intensively experience DM especially regarding the change of the family dynamics and their activates for the welfare of the sick child, which makes both the treatment as well as the assistance of the disease possible, once the changes resulting from the diagnosis are inevitable.

The main changes perceived are those related to food and to the financial impact facing the required expenditures caused by the disease. Once the eating reeducation of the diabetic child is directly linked to the financial factor, keeping in mind that health food becomes expensive for the family, which alters the domestic budget.

The importance of the multi-professional, interdisciplinary and humanized care, focusing on the process of education in health, for all the members of the family, is highlighted.

Collaborations

Correia Júnior PCT contributed for the conception of the work, data collection, analysis, interpretation of the data and writing of the article. Pereira SMPD contributed for the structuring of the article, analysis and interpretation of the data and final approval of the version to be published. Almeida VCF, Saraiva ARB and Alencar AMPG contributed for the writing of the article and final approval of the version to be published.

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