ORIGINAL ARTICLE

ACCEPTANCE OF ADDITIONAL ALTERNATIVE MEDICINE BY PREGNANT DIABETICS*
A ACEITAÇÃO DA MEDICINA ALTERNATIVA COMPLEMENTAR POR GESTANTES COM DIABETES
LA ACEPTACIÓN DE LA MEDICINA ALTERNATIVA COMPLEMENTARIA POR MUJERES EMBARAZADAS CON DIABETES

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ABSTRACT

Objective: to evaluate how pregnant women with diabetes understand and accept the use of integrative and complementary health practices, especially Reiki, during prenatal care. **Method:** this is a qualitative, descriptive, exploratory study of diabetic pregnant women seen at a Perinatal Diabetes Research Center in a tertiary center, through semi-structured interviews with 12 pregnant women. The interviews were audio recorded and transcribed for later analysis whose data were submitted to the Content Analysis technique. **Results:** it was demonstrated, by most pregnant women diagnosed with diabetes, the knowledge of some integrative and complementary practices in health. In addition, a large number of respondents would receive such therapies if they were available in the Unified Health System (UHS), but Reiki therapy was unknown to patients. **Conclusion:** this study serves as a starting point for health professionals to introduce integrative and complementary therapies in Brazilian public health. Further studies in other populations are needed to gain a deeper and more detailed view of patients' profiles in different regions. **Descriptors:** Complementary Therapies; Prenatal Care; Pregnancy in Diabetics; Patient Acceptance of Health Care; Therapeutic Touch; Qualitative Analysis.

RESUMO

Objetivo: avaliar como as mulheres grávidas com diabetes compreendem e aceitam o uso de práticas integrativas e complementares na saúde, especialmente o Reiki, durante o atendimento pré-natal. **Método:** trata-se de um estudo qualitativo, descritivo, exploratório, de gestantes diabéticas atendidas num Centro de Investigação do Diabetes Perinatal em um centro terciário, por meio de entrevistas semiestruturadas com 12 gestantes. Audiogravaram-se e transcreveram-se as entrevistas para posterior análise cujos dados foram submetidos à técnica de Análise de Conteúdo. **Resultados:** demonstrou-se, pela maioria das mulheres gestantes diagnosticadas com diabetes, o conhecimento de algumas práticas integrativas e complementares na saúde. Receber-se-iam, além disso, por um grande número de entrevistadas, tais terapias se essas fossem disponíveis no Sistema Único de Saúde (SUS), porém, a terapia Reiki mostrou ser desconhecida entre as pacientes. **Conclusão:** serve-se este estudo como ponto de partida para profissionais de saúde introduzirem as terapias integrativas e complementares na saúde pública brasileira. Tornam-se necessários estudos adicionais em outras populações para obter uma visão mais profunda e detalhada do perfil das pacientes em diferentes regiões. **Descritores:** Terapias Complementares; Pré-natal; Gravidez em Diabéticas; Aceitação pelo Paciente de Cuidados de Saúde; Toque Terapêutico; Análise Qualitativa.

RESUMEN

Objetivo: evaluar cómo las mujeres embarazadas con diabetes entienden y aceptan el uso de prácticas de salud integradoras y complementarias en salud, especialmente el Reiki, durante la atención prenatal. **Método:** este es un estudio cualitativo, descriptivo, exploratorio de mujeres embarazadas diabéticas atendidas en un Centro de Investigación de Diabetes Perinatal en un centro terciario, a través de entrevistas semiestructuradas con 12 mujeres embarazadas. Las entrevistas se grabaron en audio y se transcribieron para un análisis posterior cuyos datos fueron sometidos a la técnica de Análisis de Contenido. **Resultados:** la mayoría de las mujeres embarazadas diagnosticadas con diabetes demostraron el conocimiento de algunas prácticas integradoras y complementarias en salud. Además, un gran número de encuestados recibiría tales terapias si estuvieran disponibles en el Sistema Único de Salud (SUS), pero la terapia de Reiki era desconocida para los pacientes. **Conclusión:** este estudio sirve como punto de partida para que los profesionales de la salud introduzcan terapias integradoras y complementarias en la salud pública brasileña. Se necesitan más estudios en otras poblaciones para obtener una visión más profunda y detallada de los perfiles de los pacientes en diferentes regiones. **Descriptores:** Terapias Complementares; Atención Prenatal; Embarazo en Diabéticas; Aceptación de la Atención de Salud; Tacto Terapéutico; Análisis Cualitativo.

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INTRODUCTION

It is known that worldwide there is a tendency among men and women to use complementary alternative medicine (CAM).^{1,2} Women tend to seek health care more often than men. It is reported that such interest in CAM began in the 1960s, when the counterculture movement increased the interest of the American and European population for a more natural and traditional healing approach. The counterculture movement was characterized by protesting the cost of healthcare and the dominance of the pharmaceutical industry;³ furthermore, this movement spread rapidly to Latin America.²

CAM is represented in Europe and the United States, various therapies based on ancient, folk and traditional medical systems, which consist in maintaining and improving physical and mental illness through a variety of practices.^{4,5} In addition, the use of CAM in each country depends, i.e. outside conventional health services or adapted by conventional health services.^{1,2}

Since 2006, the term Integrative and Complementary Practice has been used to describe a wide range of CAM, bringing conventional and complementary approaches in a coordinated manner.^{1,2} In 2006, the Brazilian Ministry of Health approved the National Policy on Integrative and Complementary Practices (NPICP) under the Unified Health System (Ordinance No. 971) (UHS; therefore, homeopathy, acupuncture and traditional Chinese medicine; medicinal plants and herbs, hydrotherapy and crenotherapy and anthroposophic medicine were accepted in public health practice).⁶ It is added, however, that Reiki and other therapies were not mentioned within this determination.

In the United States, the National Center for Complementary and Integrative Health (NCCIH) ranked the most complementary health approaches in one of two subgroups: natural products (eg vitamins and minerals; herbs and probiotics) or mind and body practices (eg yoga; chiropractic and osteopathic manipulation; meditation; massage therapy; acupuncture; tai chi; qi qong; healing touches; hypnotherapy and movement therapies such as Pilates).²

It is found that while most natural products and mind and body practices fit into complementary health approaches, some CAMs did not fit into any of these groups, such as traditional healers, traditional Chinese medicine, Ayurvedic medicine, homeopathy, and naturopathy.²

In the United States, the medical world is changing its biomedical viewpoint to a more holistic one, moving away from the reductionist view of biomedicine to one that views the human as a complex system.⁷ It is thus necessary to

approach health from multiple perspectives, in other words not only biology, biophysics, biochemistry and psychology, but also energy medicine based on the principle that all living systems generate and respond to energy fields such as integral aspects of physiological regulation as described by Rubik.⁷ Most Eastern medicine has worked with such a concept that all living creatures have life energy that sustains all living organisms, and this life force has various names, such as Ki (Japanese medicine), Qi (Chinese medicine) and Prana (Ayurveda)⁶⁻⁷

It is clarified that Reiki is in energy medicine and is composed of two Japanese words: King (ie universal or higher knowledge or spiritual consciousness) and Ki (ie vital energy). Reiki is prescribed as a natural form of healing that uses subtle energy systems in the body and universal vital energy to bring the body into balance. Reiki was discovered as a healing modality brought back to practice by Mikao Usui in Japan in the early 1900s.^{2,7} In this healing mode, it involves gently placing the hands on or above the body and directing the healing energy of the universal life energy through the practitioner to the client.⁷

In addition, pregnancy plays a crucial role in any woman's life, and when a woman is diagnosed with a chronic illness during pregnancy such as diabetes, there are potential complications for any woman or perinatal, bringing many worries and stress during that time. It is interesting, to establish a harmony and balance back to women's lives, to consider CAM, especially Reiki. A small amount of clinical trials have been conducted to investigate Reiki during pregnancy and evidence is still very limited.⁸⁻⁹ Two clinical trials were returned by searching the MEDLINE, LILACS and EMBASE databases of Reiki treatments used during pregnancy,⁸⁻⁹ although these studies only evaluated whether Reiki reduced labor pain after cesarean section.

It is clear that there are many ethical and practical difficulties in conducting research during pregnancy, but women are using these treatments, so it is important to investigate their effectiveness and safety. However, it is important, before proposing a clinical trial, to consider knowledge and acceptance of CAM, especially Reiki, for pregnant women who were diagnosed with diabetes at a Brazilian outsourced care center.

It is believed that evaluating how pregnant women diagnosed with diabetes understand and accept the use of complementary alternative medicine, especially Reiki, during prenatal care is necessary to serve as a complementary therapy option in the treatment of diabetes in prenatal care.

OBJECTIVE

- To assess how pregnant women with diabetes understand and accept the use of complementary and integrative health practices, especially Reiki, during prenatal care.

METHOD

This is a qualitative, descriptive, exploratory study with in-depth interviews. An intentional sample of pregnant women with diabetes was recruited from the PDC HCFMB between March and June 2016.

It is explained that the eligible patients were native speakers of the Portuguese language and pregnant women who were diagnosed with type 1 or 2 diabetes before pregnancy and gestational diabetes. In order to participate in the interview, all patients had to attend prenatal care at the Perinatal Diabetes Center (PDC) of the Botucatu Hospital School of Medicine (HCFMB), Paulista State University (UNESP), and no relationship was established before the interview.

Informed consent was provided by eligible patients by completing a semi-structured 10 to 20 minute interview conducted by the first author (a holistic health professional) between March and June 2016. The first author conducted some qualitative research, participating in some training before. The audio interview was recorded and then transcribed. Transcriptions were ordered and participants were coded from A1 to A12.

Firstly, the interviewer obtained demographic information on patients, such as age, ethnicity and family status, education level, employment status, number of previous live births, gestational age, type of diabetes and religion history.

A semi-structured interview script that consisted of primary questions with an emphasis on CAM and Reiki was then used, ie whether they have heard of any complementary alternative medicine; if they would receive / accept a treatment with complementary alternative treatment and if they have heard about Reiki.

After the semi-structured interview, a leaflet previously designed by the research group was given to each interviewee to promote Reiki. The pamphlet contained some basic information about the background of Reiki and its benefits through short texts and photographs. The interview was interrupted after the pamphlet was handled and, as all transcripts were completed, the recordings were destroyed.

The transcripts of the interviews were analyzed when they were completed. Patient recruitment was continued until theoretical saturation was reached, which was predefined as the point at which new data became redundant

with existing thematic categories and the properties of the categories are sufficiently understood. Therefore, 13 pregnant women with diabetes were approached, one respondent declined the invitation to participate and the reason was not requested and no one gave up.

Interview transcripts were qualitatively evaluated by Thematic Content Analysis.¹⁰ The qualitative approach was adopted, as it expands meanings and identifies issues that could go unnoticed. In the analysis of interview data, several stages were involved: pre-analysis, material exploration and data processing (i.e. data analysis and interpretation). First, participants' discourses were grouped by similarities of meaning in one of three analytical categories based on the semi-structured script: knowledge about CAM; acceptance on receipt of CAM and knowledge / acceptance about Reiki. Finally, two more themes were identified through analyzes, such as the use of CAM instead of drugs prescribed during prenatal care, and the availability of CAM in the Unified Health System (UHS). This study followed consolidated criteria for the qualitative research report (COREQ) comprising a 32-item interview and focus group checklist.¹¹

The research project was approved by the Human Research Ethics Committee of the Botucatu Medical School (CAAE: 52720616.1.0000.5411).

RESULTS

◆ Identification and Characterization of Study Participants

Of the total study participants, 13 pregnant women met the eligibility criteria, one refused, 12 were enrolled and interviewed until saturation was reached. Demographic data show that the age group was 32 years and with a gestational age of 30 weeks, 11 pregnant women with gestational diabetes mellitus (GDM) with 91.67% and one type 1 diabetic (8.33%); Regarding marital status, ethnicity and education, 91% of the pregnant women were married, 66.67% black and with elementary school; among pregnant women 83.33% have children before the current pregnancy.

Figure 1 shows that none of the participants gave up during the interview and all questions were answered by all 12 participants.

Semi-structured Questions	Total number of respondents (N=12)
1. Have you heard of complementary alternative medicine?	12
2. Have you received any complementary alternative treatment? Would accept?	12
3. Have You Heard About Reiki Therapy?	12

Figure 1. Number of participants' answers of each semi-structured question to the total number of respondents. Botucatu (SP), Brazil, 2016.

◆ Way to understand the knowledge of complementary alternative medicine

In the first question of the semi-structured guide, the knowledge of pregnant women with diabetes on CAM that are currently practiced in Brazilian society was evaluated, as the following statements.

- Yes, I know, as I studied Physical Education, it's easier for me, even gives a self-esteem to women, even more pregnant, who think they can do nothing, is very interesting. (TO 1)*
- I heard about massage. (A2)*
- No, I have never heard such as massage, acupuncture, yoga, meditation. (A3)*
- I haven't heard of them, it's the first time I've heard of them. (A4)*
- Already. I did yoga three times a week and I really liked it because it reduces anxiety, improves muscularity and balance as well. I stopped three or four years ago and I don't want to go back since I don't have that elasticity anymore. (A5)*
- Yes, acupuncture, yoga, massage, meditation. (A6)*
- Yes, I heard about acupuncture. (A7)*
- I've heard of some of them, I think massage, yoga, meditation, acupuncture; but I'm not sure how it works. (A8)*
- I have heard about Reiki and the newborn massage I have seen on the internet. (A9)*
- Yes, massage. (A10)*
- I don't think I heard it. Is yoga a type of therapy?! Massage?! (A11)*
- I just heard about acupuncture. (A12)*

◆ Way to understand the acceptance of complementary alternative medicine

The second question focused on their acceptance to receive holistic treatment and most respondents expressed that they would receive such treatment as follows.

- I would do any kind of CAM without any problem, I accept everything. (TO 1)*
- I never did massage, but I would. (A2)*
- I would not do acupuncture because of the needles. I wouldn't do yoga either. I would do massage and meditation. (A3)*
- I don't think so because I'm so tired and calm. (A4)*
- I don't know, I don't have the courage to do acupuncture and I'm sore when someone touches me during the massage. (A5)*
- Although I did not receive any CAM, I would like to, it would be nice. (A6)*
- Yes, I would like to, because it would help more during pregnancy and I believe many people would need it too. (A7)*

- I never did. But if I had the opportunity, I also think some people would like it, right? (A8)*
- I certainly would, because reducing stress is a good way to relax and I would do that newborn oil massage too, playing lightly; Reiki looks like this, doesn't it? (A9)*
- I would only do the same day I come here. (A10)*
- I never did, but I would do a massage. (A11)*
- I don't know if I would do it because I don't know how it works, but if I knew how it works, I could think straight. (A12)*

◆ Path towards Understanding Reiki Therapy Knowledge and Acceptance

The last question was focused on Reiki and whether they would consider such treatment during prenatal care. It was observed from their responses that respondents are unaware of Reiki, but also showed some openness to receiving such therapy after the pamphlet was treated for them, as in the following statements.

- I do not know Reiki, but with the explanation here on the flyer is very interesting. I think Reiki is cool inside the clinic, there are a lot of women who don't know here, haven't completed their studies and are very looted during pregnancy; thus, Reiki would help them control their hormonal feeling. So it would be awesome whenever it is available here. And if it were available here, I'd like to receive it because anything that benefits you would be welcome, especially if it's on my doctor's day, which is very good, because it's kind of tedious to wait; so I get Reiki, time goes by fast, I relax, I go to the doctor and I go out. (A1)*
- I never heard of that. Hold on. The flyer is cool. Pregnant women have a lot of pain and now there is not much medicine I can take. I certainly would. (A2)*
- I never heard of that. But looking at the flyer here, it's cool, right.*
- I would like to receive Reiki. This therapy is for people who have a lot of worry, stress, insomnia. I would like to have Reiki. (A3)*
- I do not know what it is. But even seeing the pamphlet here, I wouldn't. But I think it's interesting to have here at the hospital and I think other pregnant women would. (A4)*
- No, I don't know Reiki, but I would like to know. That helps a lot, but for me, at 37 weeks, so over-eager, it won't even help, but it would help others. (A5)*
- I have never heard of it, but seeing the flyer and reading, I would like to receive Reiki. The pamphlet helped me understand very well what it is. (A6)*

No, but after reading the pamphlet, I would get Reiki and I think it would be great to have it here, since we can't take much medicine. (A7)
I don't know, but after reading the pamphlet and looking at the pictures, I think it's cool to do a little stress, right, if I had the same day of my medical care, I'd like to receive it, since I'm very stressed lately. (A8)

Yes, I heard and I would do Reiki. Reiki is easy, right? And it would help the child too. (A9)

I haven't known Reiki since I read this flyer, it's important if you had it here at UNESP and I'd like to receive it. It's important to have something new, right? (A10)

I don't know. I think it's nice to have Reiki here. I would do it here if it was the same day as the doctor's appointment. Oh, it's relaxing and I need it so much. (A11)

I don't know about Reiki, but after reading the pamphlet, I find it very interesting, well explained, can help pregnant women, right? I prefer to do it. I really liked the idea of Reiki. (A12)

DISCUSSION

It is noted that no study conducted and published in Brazil reported the use of CAM as Reiki and, consequently, none on the understanding and acceptance of CAM for pregnant women who were diagnosed with diabetes. The demographic data found in this study corroborate studies showing CAM users in Malaysia^{6,12} where the average age, educational level and socioeconomic status are similar for pregnant women seeking it. This is contradictory in developed countries where middle-aged pregnant women with higher education seem to look more for CAM, as in Switzerland¹ and Australia.¹³

Although these studies were performed only with pregnant women, none of them were performed during pregnancy followed by chronic diseases such as diabetes. It is noteworthy that the public health system in Brazil, Malaysia and Turkey serves more low-income people with unfinished studies, while in Australia and Switzerland it covers the entire base population.

From 1960 to 1970, an urban social movement known as counterculture began to question the efficiency of public health policies, the empowerment of pharmaceutical industries, and high health care costs, especially in the United States and France. It has therefore become this social group most interested in other healing treatments that have been promoting health since ancient times, namely traditional Chinese, Japanese and Ayurvedic medicine.³⁻⁴ NCCIH has currently monitored the rapid growth of these therapies.¹⁴

In addition, ten of the 12 respondents demonstrated some knowledge and understanding of CAM, for example:

I've heard of some of them, I think massage, yoga, meditation, acupuncture; but not sure how it works. (A8)

In addition, others thought they did not know about CAM, but their understanding was correct, as in the following statement:

No, I have never heard such as massage, acupuncture, yoga, meditation. (A3)

Although a large number of respondents have not completed their regular education, it is found that they are connected to various types of media, such as television, radio and the internet, which were known to popularize CAM in some countries.^{4,8,12}

In addition, CAM is thought to have grown most rapidly in Western countries since the 1980s, with the opening of several homeopathic pharmacies, herbal fairs and private holistic health practices. Other studies have also suggested that such popularization is due to the population's search for a more natural way of life that our ancestors experienced when they suffered from any kind of disease, reducing the habit of self-medication and its side effects.^{8,12,15}

It was shown in this study that ten out of 12 respondents would receive some CAM, for example:

Yes, I would like to have it because it would help more during pregnancy and I believe a lot of people would need it too. (A7)

It can also be said, although this study only assesses the knowledge and acceptance of CAM in a Brazilian tertiary center, that such results corroborate those found in Malaysia⁶ and Turkey,¹² where most women use CAM during prenatal care. Turkey and Malaysia are known to be developing countries, such as Brazil, and CAM users are mostly of low education and socioeconomic status; However, Switzerland and Australia are developed countries and showed that the majority of CAM users came from higher education and middle to high income levels.^{1,13} Regardless of the female background, patients who are in a state of physical and / or mental pain try to find some solution to alleviate their suffering, which may explain the acceptance of pregnant women who were diagnosed with diabetes. on receiving CAM as they are concerned about their pregnancy and well-being.

Only one respondent was shown to have heard of Reiki, while others agreed to receive such therapy from the moment the pamphlet was treated by them. Due to lack of knowledge, there is a certain limitation to introduce CAM in outpatient clinics, such as the interviewee A12, who said, when asked if she would accept any CAM:

I don't know if I would do it because I don't know how it works, but if I knew how it works, I could think straight. (A12)

The booklet was thus allowed to understand how Reiki works and its benefits, since they all showed up to accept Reiki after reading the booklet, for example:

[...]the pamphlet helped me understand very well what it is. (A6)

During the analysis process, two concerns of pregnant women receiving CAM in a Brazilian tertiary center as an alternative to prescriptions and when CAM was part of prenatal care were highlighted.

Natural practices, when accepted by both pregnant women and multidisciplinary staff, can be used to relieve pain, for example:

[...]Pregnant women have a lot of pain and now there is not much medicine I can take. I would surely do [...]. (A2)

It has been stated that pain control with non-pharmacological practices decreases the psychological effect of pain, allowing self-control and improving sleep levels.¹⁶

In addition, a major concern became evident through data analysis where the main concern was related to when Reiki would be performed at the PCD HCFMB, for example:

I would do it here if it was the same day as the doctor's appointment [...]. (A11)

This episode is due to the fact that many Brazilian patients find it difficult to be seen by a healthcare professional, since there is a kind of infrastructure issue within Brazilian outpatient clinics and hospitals, for example: constantly attacking; lack of trained personnel and medications; broken equipment and long lines of exams (ultrasound and blood test). It is understood that this fact is already part of the life of many users of the public health network and has become part of their queuing routine for long periods or not seen by the health team due to emergency outbreaks.¹⁷⁻¹⁸

Therefore, patients usually need to rearrange their daily tasks such as work, housework and childcare,¹⁷ influencing your daily rhythm, causing a distance from your family members and consequently this may be a fact of not accepting CAM treatments as they would need regular consultations to resolve their suffering.

CAM has been used worldwide to reduce physical and mental illness and to reduce allopathic drug use.¹⁹⁻²¹ Reiki was classified by the NCCIH as a form of energetic healing by the hands, so the dissemination of such therapy to prenatal diabetic pregnant women to improve quality of life, integrated with a multidisciplinary approach, would contribute to the treatment. A multidisciplinary team should be composed of highly trained professionals working together to solve a variety of dilemmas. Holistic health professionals fill a gap in Brazil that is not covered by any health course program, as holistic health professionals have a genuine and empirical

approach to alleviating physical and spiritual discomfort, since almost all health courses are not covered by a holistic view of humanity (ie physical, spiritual, social and soul).²¹ In addition, there is a lack of good quality evidence-based medicine and CAM mechanisms of effect that leads to some distrust, even repudiation by the health care team, although no one can dispute the benefits inherent in these therapies as they increase relaxation, well-being and quality of life.²¹⁻²⁵

CONCLUSION

This study provided some basic information on the profile of participants in a specific area in Brazil, while further studies are needed elsewhere to gain a broader view of other populations, as Brazil is large in population and size. This allows qualitative methods to expand meaning to perceive certain areas that would go unnoticed in any quantitative study. It is believed, although the number of participants may be considered as a limitation, it is noteworthy that no other study on pregnant women diagnosed with diabetes has been conducted so far. Moreover, it is emphasized that 12 pregnant women made up almost all women treated at the local tertiary center during the study period, so this study enriches the literature, contributing to future research in other populations. A PCD HCFMB randomized controlled trial has been introduced to investigate the effectiveness of Reiki on the quality of life of pregnant women who have been diagnosed with type 1, 2 or gestational diabetes.

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