ORIGINAL ARTICLE

CONSEQUENCES OF THE ALCOHOLIC ABSTINENCE SYNDROME IN THE ALCOHOLIC MOTHER’S NEWLY-BORN CHILD

ABSTRACT

Objective: to discuss the consequences of alcohol consumption during pregnancy. Method: research with a qualitative approach and the interview guide was used which dealt with the time working in maternal and child area, each one’s specific knowledge related to the theme, what everyone could observe, and the role of each referred to the orientations to be offered to the mothers, the consumption of alcohol during gestation and postpartum. The content analysis was used to analyze the data collected. Results: the results showed the most apparent complications of alcohol ingestion in the child’s organism are: tremors, suction difficulties, strabismus, mental retardation, and difficulties in the social and educational life, and in the woman’s are: irritation and high blood pressure, possibly leading to pre-eclampsia. Conclusion: The tracing of the user in the prenatal period and a possible orientation for alcoholic abstinance in the pregnant-puerperal period is the best strategy to improve the health of the newly-born child.

CONCLUSÃO DA SÍNDROME DA ABSTINÊNCIA ALCÓOLICA NO RECÉM-NASCIDO DE MÃE ETILISTA

CONSECUENCIAS DEL SÍNDROME DE ABSTINENCIA ALCOHÓLICA EN EL RECIÉN NACIDO DE MADRE ETILISTA

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ABSTRACT

Objective: to discuss the consequences of the consumption of alcohol in the gestation. Método: pesquisa de abordagem qualitativa, do tipo pesquisa de campo, realizada no ano de 2011 em um hospital geral de Nova Iguacu. Para a coleta dos dados com seis enfermeiros que concordaram em participar do estudo mediante assinatura termo de consentimento livre e esclarecido após aprovação do projeto de pesquisa pelo Comitê de Ética do Hospital Geral da Baixada Fluminense sob n. do CAAE 0017.0.316.000-10 foi usado o roteiro de entrevista que abordou o tempo de atuação na área materno-infantil, o conhecimento específico de cada um referente à temática, o que cada um podia observar, bem como o papel de cada um quanto as orientações a serem oferecidas as puérperas, quanto ao consumo de etanol no período grávidico e puerperal. Utilizou-se o método de Análise de Conteúdo Temático para análise dos os dados. Resultados: foram identificadas duas categorias: Complicações decorrentes da ingesta de etanol no organismo materno e fetal e Estratégias de enfermagem na orientação da mulher em uso de etanol na gestação. Estas mostraram que as complicações mais evidentes da ingestão de álcool no organismo infantil foram: tremores, dificuldades de sução, estrabismo, retração mental, dificuldades na vida social e educacional, e na gestante são: irritação e pressão arterial alta, podendo levar a pré-eclampsia. Conclusão: O rastreamento da usuária durante o pré-natal e a possível orientação da abstência alcoólica no período grávidico-puerperal é a melhor estratégia para promoção de saúde do recém-nascido.

RESUMEN

Objetivo: discutir las consecuencias del consumo de alcohol en la gestación. Método: investigación de abordaje cualitativo, del tipo pesquisa de campo, realizada en el año 2011 en un hospital general de Nova Iguacu. Para la recolección de datos, seis enfermeras aceptaron participar del estudio y firmaron un consentimiento informado después de la aprobación del proyecto de investigación por el Comité de Ética del Hospital General de Fluminense en el n. CAAE 0017.0.316.000-10. Se utilizó una entrevista estructurada que trata de la experiencia de trabajo en el área de la salud materna e infantil, el conocimiento específico de cada uno sobre el tema, que cada uno podía observar, y el papel de cada uno sobre las directrices que se ofrecen a las madres, el consumo de etanol durante la gestación y el posparto. Se utilizó el método de análisis cualitativo para analizar los datos. Resultados: los resultados demostraron que las complicaciones más evidentes de la ingesta de etanol en el organismo infantil son: temblores, dificultades de succión, estrabismo, retração mental, dificultades en la vida social y educativa; y en la gestante son: irritabilidad y tensión arterial alta, pudiendo conducir a la pre-eclampsia. Conclusión: se puede concluir que el seguimiento de la usuaria durante el prenatal y la posible orientación de abstención alcohólica durante el embarazo puerperal es la mejor estrategia para el fomento de la salud del recién nacido.

Original research project entitled "Nursing administration and the search for quality" presented with the title highlighting the consequences of the alcoholic withdrawal syndrome in alcoholic mothers' newborn children, to the Graduate Program in Nursing and final examination of the graduate course, of the Health Sciences Center, at the University of Iguaçu / UNIG. Rio de Janeiro-RJ, Brazil. 2010.
INTRODUCTION

It is agreed in the scientific literature that ethanol consumption by pregnant women can cause numerous adverse effects on fetal health. Conditions commonly named as spectrum of fetal disorders related to the use of it during pregnancy, which it is highlighted the Fetal Alcohol Syndrome (FAS).

Fetal alcohol syndrome is defined as a fetal malformation, which consists of three groups of changes: poor growth, dysmorphic features and manifestations of the central nervous system (CNS).¹

The use of substances that destroy the health of unborn baby during pregnancy and childbirth as licit and illicit drugs should be investigated and encouraged. Restricted fetal growth, miscarriage, premature birth, cognitive defects in the fetus, among others, may be associated with the use and abuse of these substances.¹

The chemical dependency tends to affect the family as a whole. The users of psychotropic drugs' sons have an increased risk for the development of addiction and mental disorders, when compared to other children. Apart from mental disorders, they have increased risk for emotional and physical problems and educational difficulties. Thus, they are also part of a group with a greater chance for developing depression, anxiety, conduct disorder and social phobia. Regarding the development of physical emotional problems, low self-esteem, difficulty in relationships and accidental injuries are predominant.²

The ethanol exposure also brings harm to the mother's health, such as cardiovascular disease, cancer, depression and neurological disorders. It is also associated with insufficient gestational weight gain, fewer prenatal visits and an increased risk of using other drugs.²

Nowadays, Alcoholism is considered one of the most serious public health problems, causing physical, psychological and social consequences.³ Based on this statement the article presents as a problem: What are the consequences of ethanol consumption during pregnancy in order to contribute also in the early identification of the syndrome as well as to serve as a theoretical basis for further research.

LITERATURE REVIEW

- Fetal alcohol syndrome and pharmacodynamics of ethanol

The FAS consists of a set of physical deformities, behavioral and cognitive particularly linked to the fetal exposure to ethanol. Ethanol is absorbed when consumed in the small intestine by the enterocytes, and carried through the portal vein to the liver, which will be oxidized and transformed into acetaldehyde and then is converted to acetate.¹ The excess of ethanol is eliminated by the kidneys, and in the event of a return to the liver it will be transformed into water and carbon dioxide, being eliminated by the lungs.³ The excessive consumption of ethanol during pregnancy brings harm as miscarriage, malformation, mental retardation, fetal development and maturation hyperactivity, facial abnormalities, fetal endocrine changes.³

It is important to emphasize the physiological mechanisms about the fetal nervous system, this includes interference in the process of neural maturation, cell migration, as well as myelination, adhesion, and alteration of cell membrane and in the production of responses to the factors that regulate growth and the process meiosis, including interference in the regulation of intracellular calcium and production of free radicals.³

Recently, the issue related to pregnant women who use psychoactive substances, as well as its consequences for newborn children, has been the focus of scientific studies. Women who use ethanol during and after pregnancy expose their children to the risks already identified in several clinical and experimental studies.²

Although it is unknown the exact dosage that can cause harm to the fetus, recent evidence suggests that even one dose per week is associated with possible future mental problems, exposing the fetus to a teratogen.²

It is unlikely that a single mechanism explains all the adverse effects of ethanol exposure in womb, but they have not identified markers yet that can determine the action of ethanol in fetal tissues.²

Studies show that there is an increased consumption of ethanol by the female population, and as a result a large portion...
of this population and their fetuses are exposed to varying doses of this agent. The mental and physical changes that occur in the FAS are totally preventable if the mother refrains from ethanol consumption throughout gestation or before the conception, because the worst damage occurs in the embryonic period, which is the first four to six weeks intrauterine life. Thus, the recommendation is complete abstinence from alcohol in any quantity and at any stage of pregnancy. The damage that ethanol causes in women users’ fetuses are permanent and irreversible. However, there are ways to reduce the consequences of abuse through multidisciplinary actions, which may lead the patient to more satisfactory social integration in the future.

**METHOD**

An exploratory, field and qualitative approach research. The exploratory study is the initial contact with the topic being discussed with the subjects to be investigated and with secondary sources. As regards to the qualitative approach, there is a dynamic relation between the real world and the subject, ie, an inseparable link between the objective world and the subjectivity of the person that can not be translated into numbers. The place used for this research was a large hospital in Rio de Janeiro city and a high risk maternity attached to hospital. Both located in the second Regional Geographic Unit of the city Nova Iguaçu (II Unidade Regional Geográfica do município de Nova Iguaçu - URG-II Posse). The unit currently has 326 beds registered in the Sistema Único de Saúde (SUS), adopted the program QualiSUS and the policy of humanization, and it offers these services to medium and high complexity, both clinical and surgical and obstetric. It is reference to all Baixada Fluminense. It is certified by the Ministry of Education and Culture and Ministry of Health since October 2006 for teaching and research hospital. Medical center has more than 20 specialties, with reference to combat Sexually Transmitted Diseases/ AIDS and care of pregnant women with HIV.

- Entrance in the field for data collection

The field research was conducted from October to December in 2010 with six nurses and we used the technique of semi-structured interview method in individual interviews. To the interviewee we asked for permission to record the interview in MP4 recording equipment to reduce the possibility of changes in the lines and facilitate data records. Later the speeches were transcribed to make it possible to analyze them.

Being an acting professional in maternal and child health and neonatology, with approximately five years of experience was the criterion used for their inclusion in the sample. According to these criteria it was understood that the recent graduate professional might not have passed through the experience of care for this type of customer, thus they can not provide the necessary information to the research. The anonymity were guaranteed and confidentiality to the participants, and they were duly informed about the research, allowing their participation by signing the consent form.

The interview script dealt with the work experience in the the maternal and child health of each professional, the specific knowledge related to each theme, what they can observe, and the role of each professional in the orientations to be offered to the mothers , the consumption of ethanol during gestation and postpartum.

The Thematic Content Analysis was divided into three phases: pre-analysis, material exploration and treatment of the findings and interpretation. In the first stage the organization of the analyzed material was carried out. We applied in the second phase which what was determined in the previous phase. In the third phase we attempted to find the content behind what is being shown.

After applying the method of Thematic Content Analysis we identified the following categories: complications resulted from ingestion of ethanol in maternal and fetal body and nursing strategies in the orientation of women in use of ethanol during pregnancy.

In accordance with Resolution 196/96, which involves field studies and to the research which deals with human beings in the health sector, the project was submitted to the Ethics Committee in Research of Hospital Geral da Baixada Fluminense with number CAAE 0017.0 .316.000-10.

**RESULTS AND DISCUSSION**

- Complications Arisen from Ingestion of Ethanol in Maternal and Fetal Body

In this category we analyze the main signs and symptoms of newborn (NB) exposed to ethanol during the obstetrical
and the consequences for the newborn's mothers and NB for such exposure.

The signs and symptoms are evident. In children, tremors and drowsiness, in the case a hard suction and in the mother she is very irritable and anxious. (EI); [...] And the child may be born with malformations. It may be committed to mental retardation, malformations in the body, eyes together, right? Strabismus, central nervous system problems, drowsiness, tremors, difficulty in sucking, suck huh. (EII); Tremors can happen (child) and future cases may occur in the child's life. The child cries too much, she gets angry (child), drowsy (child). It is difficult even in breastfeeding [...]. (EVI)

Regarding to the signs and symptoms observed, it is emphasized that the child has difficulty with sucking, presents drowsiness and tremors that show the presence of the syndrome. Mothers' newborn children who consumed ethanol during pregnancy may have symptoms from mild to severe withdrawal (tremors, muscle tension, weakness, sleep disturbances, excessive crying, difficulty in sucking). It can also occur within the abstinence syndrome, emesis, difficulty in feeding and periods of hyperexcitability, interspersed with lethargy.9

After birth, in the first twelve hours, the effect of ethanol consumed during pregnancy can trigger in the baby an alcohol withdrawal, which is characterized by agitation, tremor, sleep disturbance, muscular hypertonia and sometimes convulsions, consecutive to the sucking of the umbilical cord that held the alcohol in the fetal circulation. [...] This child really has difficulties both on the part of social life as a healthy life and even in the educational part. (EVI)

It can be noticed a correlation between the affirmative and the literature searched, because both emphasize that the child who was born of an alcoholic mother will have social problems. With regard to learning disabilities, dependent children of ethanol had lower scores in tests that measure cognitive and verbal skills, since their ability to communicate is often impaired, which can hamper performance at school and on intelligence tests, besides presenting impoverishment in relationships and development of behavioral problems.2

Babies exposed to ethanol during pregnancy may show signs such as restlessness, irritability, hypotonicity, hyperactivity. They may present mild to moderate delays in social development, motor and intellectual.10

The intrauterine exposure to alcohol, a result from alcohol consumption by pregnant women leads to several effects; they affect directly to the embryo and fetus, including physical, mental, behavioral and / or learning.4 Changes may perpetuate during all life and there is a high risk of these affected individuals become dependent on alcohol and other drugs, have mental problems, difficulties at school and at work, inappropriate sexual behavior and problems with the law.11-2

In the puerperal woman the consequences in obstetrical period and postpartum most common are:

- During pregnancy she (mother) will have complications from high blood pressure right? Pre-eclampsia, and she may have neurological disorders [...]. (EII)
- In adults the most common symptoms are: hyperactivity, tremors, insomnia, hallucinations or visual illusions, auditory or tactile transitional, psychomotor agitation, anxiety, and grand mal seizures.13
- It is evident in the speeches the increasing cases of hypertensive disorders of pregnancy (HDP) with a significant increase in blood pressure that lead to pre-eclampsia.
- Ethanol affects the mechanism of regulation of blood pressure.11,14 It is known that the greater the ethanol intake, the greater the probability of increasing pressure values.8 Considering that hypertension is multifactorial involvement, it is believed that alcohol consumption is the second non-genetic risk factor for it.14

The ethanol-dependent people can develop various diseases. The most frequent ones are liver diseases (fatty liver, alcoholic hepatitis and cirrhosis), diseases in the digestive tract (gastritis, malabsorption syndrome, and pancreatitis) and cardiovascular diseases (hypertension and heart disease). It is known that the pharmacological and physiological effects of ethanol are varied, and that besides affecting the organs that directly regulate blood pressure and blood volume, it also affects the central nervous system, ie, alcohol consumption affects an individual's health as a whole.11-2

About the data collected, there is some intolerance in the puerperal woman and impatience with the hospitalization period, reflecting in cases of lack of socialization and high in absentia.
The complications are common that what I can evidence in the woman is that she is willing to go in absentia, she is impatient, agitated. The symptoms are easy, so what most catches my attention is that they always want to go, argue... Sometimes they want to fight with patients who are next to them. It is always in this way [...]. (EV)

Ethanol can precipitate severe symptoms of depression and anxiety in hospitalized patients for medical or surgical treatments; the most common symptoms are anxiety, agitation, mood changes, and the signs and symptoms can vary in intensity and severity and they are influenced by a number of factors that may appear after a partial reduction of the total dose commonly used, depression, anxiety, irritability, aggression, hallucinations, delusions, confusion, and dementia are major neuropsychiatric consequences of alcoholism.  

- Nursing Strategies in the Woman’s Guidance on Use of Ethanol in Pregnancy

This category presents the main strategies used by nurses in order to avoid excessive consumption of ethanol during obstetrical.

Advising to avoid alcohol intake during pregnancy and after baby is born. (E I)

Through the analysis of speech we observed that the orientation is the main ally in promoting the health of both pregnant women and baby and thus the dialogue between professional nursing and pregnant / postpartum women is very important in regard to health promotion. Promoting the mental health of the pregnant woman is to assist the pregnant- puérperal period, so that it elapse so quiet and safe.

The nurse as a health educator must ensure them through teaching strategies based upon the perspective of education. Educating for citizenship within society.

The early diagnosis and the treatment of ethanol dependence has a fundamental role to the evolution of the disease, thus expanding the perspective of prevention and health promotion; but there is an injury seen when the unpreparedness and lack of information of people who deal directly with the problem, whether they users, relatives and health professionals. It is essential to the educational process offered to the general public, because it promotes the reduction of barriers in relation to treatment and the attention focused on the user of ethanol. The educational process increases the collective consciousness about the problems caused by improper use of ethanol.

The orientation is an ally and should be a permanence, showing her (pregnant) paths.

The best for both, for the woman and the baby, I believe that the disease arises and the nurse should be realizing this mother and raising awareness. Nurses have this characteristic of teaching, educate, guide. (EVI)

The nurses are an educator by their nature, and bring a responsibility to educate patients / customers in favor of health promotion and disease prevention. And a strategy to be used in the treatment process, it is the advice as a therapy base, which seeks to provide direct advices to patients to promote thinking and behavior changes emphatically.

Thus the health sector must be open and fulfill their role in educating the customer as well as a promoter of health. Thus, this quote applies to nurses, as among health professionals they maintain greater contact with the users of health services and have great potential to recognize the problems related to drug use and develop assistance actions, but the opposite approach to this issue may affect his actions.

One of the possibles of approach is the use of direct advice to the patient that promote thinking and behavioral changes. Sometimes it comes down to specific guidelines and in others, it is necessary to reduce or even total abstinence.

CONCLUSION

The present study showed the effects that alcohol use during pregnancy can bring to the mother, newborn child and subsequently the need for implementation of services that provide direct information to pregnant women about the effects of ethanol in the mother-child body. Among the major signs and symptoms in the child's organism they cited difficulty with sucking, drowsiness, irritability and at intervals of agitation, tremors, and poor school performance and socialization difficulties.

The pregnant woman may experience the following symptoms: intolerance, impatience, irritability, development of hypertensive disorders of pregnancy (HDP) with a significant increase in blood pressure leading to possible cases of pre-eclampsia.

It is known that detecting the use and abuse of alcohol during pregnancy, even in moderate doses, is not an easy task for health professionals. However, among the actions of health it is evident the tracking of alcohol users during prenatal consultation, what can be used as an important and viable strategy, the regularity in attending the pregnant woman allows the deepening of relations between health professionals and woman,
facilitating the identification of lifestyle habits harmful to health, such as the inappropriate use of ethanol in the pre-natal; guidelines about their harm as well as the pregnant woman’s awareness in relation to seeking qualified professional help who are allies to combat the syndrome.

It is presented as suggestions for possible developments of the research, the survey of public health actions during prenatal consultations aimed at preventing the use of ethanol during pregnancy, thus continuing the present study and thus contributing to care not only the nurses but also the multidisciplinary team for their newborn child affected by fetal alcohol syndrome.

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