89 - NEONATAL SCREENING: EDUCATIONAL BOOK ON MATERNAL GUIDANCE

SILVANA HELENA NEVES DE MEDEIROS JERÔNIMO MARGARETH AUXILIADORA DA SLVA OLIVEIRA DALYANNA MILDRED DE OLIVEIRA VIANA GILSON DE VASCONCELOS TORRES Nursing Pot-Graduate Program/UFRN, Natal/RN, Brasil E-mail: gvt@ufrnet.br

INTRODUCTION

The Neonatal Screening (TN) or "test of using video recording began in 1961, when the professor Robert Guthrie (USA) developed the first methodology for determination of phenylalanine in dried blood samples, collected on filter paper (BRAZIL, 2004). In Brazil, the first disease to be sorted was the phenylketonuria in 1976 by Professor Benjamin Schimidt in APAE / SP (BONATO, 2005; SOUZA, 2002).

Currently, the test is a strategy used for early diagnosis of genetic diseases and infectious before the symptoms become apparent, allowing early treatment and reducing or eliminating specific consequences associated with each disease. Today, the screening test can diagnose the private sector, approximately 30 metabolic diseases and the public system four groups of diseases: Congenital hypothyroidism, cystic fibrosis, hemoglobinopathies and hyperphenylalaninemia (SOUZA, 2002).

In the State of Louisiana, the test detects only the basic tootsy two diseases: congenital hypothyroidism and phenylketonuria (BRAZIL, 2001). According to the Ministry of Health (MoH), the relevance and effectiveness of the test have been identified by the World Health Organization, to reduce the incidence of mental disability especially in developing countries.

The status of children and adolescents cites that hospitals and other establishments for health care of pregnant women, public and private, are required to carry out examinations aimed at the diagnosis and treatment of metabolic abnormalities in the newborn, as well as providing guidance to countries (Brazil, 2005).

Thus, the Ministry of Health issued a decree GM / MS No. 822 creating the National Neonatal Screening Program (PNTN) in 2001, which in addition to the completion of inspections, monitoring and care of patients diagnosed (BRAZIL, 2004), aims to prevention of sequels and the reduction of morbidity and mortality related to congenital diseases in Brazil, being necessary to achieve this, a working educational, aware the people of the importance of the tootsy test (SILVA, 2002).

To Amorim (2005) preventive actions are the best way to avoid the morbidity and mortality and neonatal screening being one of those preventive measures the health professional should look for education regarding the importance and purpose of the examination, so that mothers act as promoters of growth and development of their children and not as mere recipients of information. Thus, covers popular participation in the context of their daily life and not just for people at risk of becoming ill (SCHALL, 1999).

The educational function of nurses is continuing and second DILLY (1995), within the multidisciplinary team of health, the nurse is the key element in developing activities of education, seeking both to individual health as a collective, as a social practice to be developed jointly with his client, taking into consideration how to live in the community, boosting the knowledge to everyone in the community.

The health care professional must help the population, from an interpersonal communication, construction of knowledge, since the second Scotney (1981), the efficient communication is the key to changing behavior in health and according to Amorim (2005) to learning becomes more efficient when the client understands the significance and importance of information.

In order to promote a more lasting and effective for users who perform the test of tootsy in their children, trying to develop a teaching material that includes basic information about the neonatal screening in order to arouse the interest of others in the family handle it at home.

For this, the nurse with its educational function should develop creative educational strategies in line with culture and socioeconomic environment of users (AMORIM, 2005); thus, the guidelines must be intentional education gives way to planned from the appropriate instruments.

Thus, choose and develop the tools that worked as a methodology of teaching-learning for health education: an educational tootsy on the test.

From the foregoing, we had to evaluate the use of primers on the test of tootsy as an instrument of health education for mothers at the Hospital Universitario Ana Bezerra, at the time of hospital discharge, since during the return to the test the tootsy, it was discovered that the knowledge of mothers, including those who had performed the test at other children on the neonatal screening was little changed despite the verbal guidance that was being held during their hospital stay.

METHODOLOGY

The study was carried out almost experimental type of intervention, randomized according to Medronho (2006), is a major scientific advances of the century. XX, in the case of a prospective study that aims to compare the effect and value of an intervention, with controls in humans, where the investigator distributes the factor of intervention being examined at random from technique of randomization. Thus, the experimental group and control are formed by a random process of decision.

The study was conducted at Hospital Universitario Ana Bezerra (HUAB), located in Santa Cruz / RN, which is developed, among other activities, the neonatal screening and follow-up visit of breastfeeding.

The population was formed by 40 mothers living in Santa Cruz, who have their children in HUAB and received guidance from the nurse of the service and had the prospect of returning to the test at the institution in the period for the collection of data.

For composition of the sample is led into account data of the annual report of the proceedings of the delivery room of HUAB, 2006, which was verified the performance of 1203 with annual monthly average of 100 births per month; forward we have the intention to use 50% of the monthly average of deliveries made to each of the two groups, so the number of users surveyed were 20 for the control group and 20 for the intervention group.

It was then formed two groups by random sampling, the collection was initiated by the control group composed by mothers who were included in the first month and received only verbal guidance on the test without the use of tootsy book and only later in the intervention group, formed by mothers who have received guidance on the verbal test of tootsy through delivery of educational booklet in the second month of research.

Used as criteria for inclusion of the population studied the mothers who littered the HUAB, with estimates of return to the test of tootsy, those who agreed to participate in the study voluntarily and signed the FICT (Term of free and informed consent), and those who responded the interview at the completion of the test tootsy.

We use as a criterion to exclude the mothers living in other districts, those who did not want to sign the FICT and requested his departure from the study.

As for guidelines on the test will be given the same verbal information to the two groups and those receiving the book will

be targeted to bring it in follow-up visit in order to check the value assigned by the study participants to the instrument.

The data made using a form of structured interview developed by the researchers using open and closed questions that was applied to mothers of study groups on the occasion of the return to the test of tootsy.

After institutional consent and assent of the Ethics Committee have begun the process of collecting data. The type of orientation was divided in two moments: in the first months were given only to verbal guidance (control group) explaining - What is the test, why it's important, what the diseases detected by the test base, as is done with as where time and get the result, the second month above the guidelines were given verbal alongside the delivery of educational book (the intervention group) so that it could be handled at home and then return to the user for follow-up visit of breastfeeding mother.

Data were collected from an individual by the researchers on Monday in HUAB the clinic by circumstance to return to the test of tootsy. The processing and analysis of data were organized in a spreadsheet program Excel, and categorized and classified as each variable and presented in graphs and tables, was a descriptive statistical treatment aimed at testing the hypothesis of the study.

RESULTS

The characterization of the sample showed that 22.5% of mothers who were targeted had no primer aged 24-29 years, followed by 17.5% aged 19 and 23 years, since the mothers who received the book 25% were aged 24-29 years followed by 20% who were aged 19-23 years, the majority of the sample aged 24-29 years; about the studies 50% of the sample had 4 to 7 years of study, while 65% of the sample survive on the income of a minimum monthly wage and 70% live in rural areas.

As the interval for the completion of the test tootsy, 95% of mothers who did not receive the book brought their children for the examination between 16 and 28 days, while 80% of mothers targeted with the book led her children between 5 and 15 days, And the interval mentioned in this book to the test, showing thus the importance of health education.

When questioned about what is the test of tootsy, we realize that 70% of mothers, who received the book, said it was to identify a disease, while 66% of which were targeted only verbally had the same response, quote consistent with the which was raised orally and in the book.

As for the tootsy importance of testing for the baby, identified by interviewees who received only verbal guidance, 50% reported that it was to identify and treat any disease, followed by 25% who said it was to prevent a disease, while 85% of the interviewees who received the book that was reported to identify and treat any disease, followed by 5% who responded that served to identify a disease, so we can see that the respondents had access to the book have a better understanding that, in addition to identifying the influences the test early treatment of disease.

In the interval of time between the collection and receipt of the result (30 to 45 days), 100% of the mothers targeted with the book answered correctly with 75% of mothers who did not receive the book.

As for the understanding of the interviewees about which diseases are detected by the test, we noticed that in the group that received the book, 95% marked hypothyroidism and phenylketonuria 75%, while the group targeted only verbally, 40% marked diabetes and cancer 35%, leaving separately phenylketonuria and the hypothyroidism with the same percentage (25%) in third place. Within this context, 80% of mothers targeted with the book cited two diseases and 20% a disease, rather than to respectively 25% and 50% of the mothers orally oriented.

Regarding the form of the test can see that 100% of the interviewees who received the book said it was through a hole in the bottom of the child, followed by 80% of those who received only verbal guidance.

DISCUSSION

It was evident in the survey that 47.5% of the sample were aged between 24 and 29 years, 50% had 4 to 7 years of the study that was shown in the study of Carniel (2006) held in the city of Campinas / SP, where on 2001, 82.2% of births were to women over 20 years and that nearly half of all women had at least 7 years of completed studies are consistent with the results obtained in our study

Of the total women, 65% were from low-income surviving with a monthly minimum wage and 70% lived in rural areas of the municipality, agreeing with the study of Garcia (2007) on the test of tootsy, where 36% of the population served in Reference Unit studied received a minimum monthly wage.

In the interval for the test, 95% of the population without primer held between 16 and 28 days and 80% of mothers targeted with the book between 5 and 15 days, which was reported in the book and is still considered outside the proper by the Ministry of Health recommends that the collection preferably between the 3rd and 7th day of life and never before 48 hours and no later than 30 days.

It was evident that the majority of mothers who received the book had a better knowledge of what was the test and why it's important, but still had vague responses because, as was evidenced in the search for Torres (2005), the test of tootsy in the city of Natal, the details of those interviewed regarding the test was superficial because none of the family is said to detect metabolic errors as the purpose of it.

Regarding the question as the test is performed, we noted that both populations were for the most correct answers, there will be no error of response in people who received the book, showing what Santos (2007) says in its work on a Manual education, and color illustrations that help to attract the attention of the reader.

The recognition of mothers in how long to receive the result was evident, since the majority of interviewees responded that the sample was between 30 and $45 \, \text{days}$.

For diseases detectable the book contributes significantly to the understanding of diseases which are detectable by the test base in our state, since 95% of mothers oriented by the educational book responded with hypothyroidism and phenylketonuria 75% rather than the targeted 25% of mothers who responded verbally hypothyroidism and 25% who responded phenylketonuria.

Thus regarding the understanding of what is the test we can say that the interviewees who received only verbal guidance showed a deficit in understanding what has been highlighted in the study of Torres (2005), where it was shown that a significant number of surveyed know the diseases that are detected by neonatal screening.

Thus, Garcia (2007) diagnosed in their study that when asked whether they'd like to get some more clarification; 44% of respondents wanted clarification on: What diseases can be avoided? If you take the positive what to do? What is exactly? Demonstrated once again the importance of using educational strategies to appeal to children's health.

Regarding the form of the test that according to Souza (2002) takes place through the use of drops of blood collected in the sole of the baby, 100% of the respondents who had access to the book replied that the collection had been through even to the detriment of 80% of those who did not receive the book, which was shown in the study of Garcia (2007), where 85% of respondents knew how to correctly describe the collection was expressing some notion about the test, even without being given information earlier.

CONCLUSION

Considering the health education a need for nursing which always seeks the welfare of another, using innovative strategies, the results from this research, point to a better understanding of interviewees who received the book beyond the verbal guidance on and the test of tootsy that only the knowledge verbally (nurse) is not sufficient for health education and that nursing

mothers should raise awareness among future still in the pre-natal care.

Thus, we can say that the book prepared fulfill its role as an instrument of health education and that the hypothesis was proved, with that hope that the institution studied adopt the book as a pedagogical strategy.

REFERENCES

AMORIM, Jaqueline Fendler; SOUZA, Maria Helena do Nascimento. O conhecimento das mães acerca da triagem neonatal. **Rev. Enfermagem UERJ.** v. 13, n. 1, p. 27-31, 2005.

BRASIL. Ministério da Educação. Secretaria especial de direitos humanos. **Estatuto da criança e do adolescente**. Brasília. 2005.

BRASIL. Ministério da Saúde. Secretaria de Atenção a Saúde Portaria nº915/sas/2001. Brasília, 2001.

BRASIL. Ministério da Saúde. SUS oferece teste do pezinho e tratamento para doenças detectadas. Brasília, 2004.

BONATO, M. L. et al. O impacto psicológico do diagnóstico positivo do teste do pezinho na relação mãe bebê. **Rev.Estud. Biol.** v. 27, n. 6, p. 33-37, 2005.

CARNIEL, Emília de Faria et al. Características das mães adolescentes e de seus recém-nascidos e fatores de risco para a gravidez na adolescência em Campinas, SP, Brasil. **Revista Brasileira de Saúde Materno Infantil.** v. 6, n. 1, p. 419-426, 2006.

DILLY, Cirlene Maria Lessa; JESUS, Maria Cristina Pinto de. **Processo educativo em enfermagem: das concepções pedagógicas à prática profissional.** São Paulo: Robe Editorial, 1995.

GARČIA, M. G.; FERREIRA, E. A. F.; OLIVEIRA, F. P. S. de. Análise da compreensão de pais acerca do teste do pezinho. **Rev. Bras. Crescimento Desenvolvimento Humano.** v. 17, n. 1, p. 01-12, 2007.

MEDRONHO, R. A. Epidemiologia. São Paulo: Atheneu; 2006.

SANTOS, R. R. et al. Aplicação de manual educativo sobre a pele do recém-nascido com estudantes de enfermagem. **Revista Eletrônica de Enfermagem** [serial on line]. v. 9, n. 3 p. 759-771, set-dez de 2007. Disponível em: http://www.fen.ufg.br/revista/v9/n3/v9n3a15.htm.

SCHALL, V. T.; STRUCHINER, M. Educação em saúde: novas perspectivas. **Cad. Saúde Pública**. v.15, suppl.2, p.S4-S6, 1999.

SCOTNEY, N. Educação para saúde: manual para o pessoal de saúde da zona rural. São Paulo: Paulinas, 1981.

SILVA, M. B. G. M. da; ZAĞONEL, I. P. S. Cuidados de enfermagem e o teste do pezinho. **Rev. Cogitare Enfermagem.** v. 7, n. 1, p. 43-47, 2002.

SOUZÁ, C. F. M. de; SCHAWRTZ, I. V.; GIUGLIANI, R. Triagem neonatal de distúrbios metabólicos. **Rev. Ciência & Saúde Coletiva**. v. 7, n. 1, p.129-137, 2002.

TORRES, S. M. S. G. O.; TORRES, G. V.; VIANA, C. Triagem neonatal em um hospital infantil municipal de Natal/RN. **Nursing**. v. 83, n. 8, p.185-189, 2005.

NEONATAL SCREENING: EDUCATIONAL BOOK ON MATERNAL GUIDANCE ABSTRACT

The newborn screening or "teste do pezinho" of how popularly known, is a strategy used for the early diagnosis of errors of metabolism before the symptoms become apparent. This study aimed to evaluate the implementation of an educational book on the newborn screening as an instrument of health education for mothers. A data collection was done with 40 mothers in the University Hospital Ana Bezerra (UHAB) Santa Cruz / RN in the months of March to June 2008. Of these 40 mothers 20 were targeted on the test only verbally and 20 beyond the verbal guidance received the book and could handle them in his home. The results confirmed that the book improved the understanding of the interviewed regarding newborn screening.

Key words: Newborn Screening, Education health, Nursing.

DEPISTAGE NEONATAL: EDUCATIF LIVRE POUR ORIENTATION MATERNELLE RESUMÉ

Le ou les tests de dépistage néonatal de la tootsy comme il est populairement connu, est une stratégie utilisée pour le diagnostic précoce des erreurs du métabolisme avant les symptômes deviennent apparents. Cette étude visait à évaluer la mise en œuvre d'un test d'éducation sur le tootsy comme un instrument d'éducation à la santé pour les mères. La collecte des données a été réalisée avec 40 mères à l'Hospital Universitario Ana Bezerra (HUAB) Santa Cruz / RN dans le mois de Mars et Juin 2008. 40 mères de ces 20 ont été pris pour cible uniquement verbalement au sujet de l'épreuve et 20 en plus des directives verbales reçu le livre et peut les traiter à son domicile. Les résultats ont confirmé que le livre a amélioré la compréhension des personnes interrogées en ce qui concerne le dépistage néonatal.

Mots-clés: dépistage néonatal, l'éducation à la santé, les soins infirmiers.

TAMIZAJE NEONATAL: LIBRO EDUCATIVO PARA LA ORIENTACIÓN MATERNA RESUMEN

Las pruebas de tamizaje neonatal o "teste do pezinho" como es conocido popularmente, es una estrategia utilizada para el diagnóstico precoz de los errores del metabolismo antes de los síntomas se manifiestan. El objetivo fue evaluar la aplicación de una prueba de educación sobre la tootsy como un instrumento de educación para la salud de las madres. La recopilación de datos se realizó con 40 madres en el Hospital Universitario Ana Bezerra (HUAB) Santa Cruz / RN en los meses de marzo y junio de 2008. 40 madres de estos 20 fueron dirigidas sólo verbalmente acerca de la prueba y 20, además de la orientación verbal recibido el libro y puede manejar en su casa. Los resultados confirmaron que el libro ha mejorado la comprensión de los entrevistados en relación con la tamizaje neonatal.

Palabras clave: Tamizaje Neonatal, la educación para la salud, enfermería.

TRIAGEM NEONATAL: CARTILHA EDUCATIVA NA ORIENTAÇÃO MATERNA RESUMO

A triagem Neonatal ou teste do pezinho como é popularmente conhecido, é uma estratégia empregada para o diagnóstico precoce de erros do metabolismo antes que os sintomas se tornem evidentes. Este estudo objetivou avaliar a implementação de uma cartilha educativa sobre o teste do pezinho como instrumento de educação em saúde para as mães. A coleta de dados foi realizada com 40 mães no Hospital Universitário Ana Bezerra (HUAB) Santa Cruz/RN nos meses de março a junho de 2008. Destas 40 mães 20 foram orientadas sobre o teste apenas verbalmente e 20 além da orientação verbal receberam a cartilha e puderam manuseá-las em seu domicílio. Os resultados comprovaram que a cartilha melhorou a compreensão das entrevistadas em relação à triagem neonatal.

Palavras-chave: Triagem neonatal, Educação em saúde, Enfermagem.