



Revista da Escola de Enfermagem da USP

ISSN: 0080-6234

reeusp@usp.br

Universidade de São Paulo

Brasil

Seabra Rodrigues, Andreia Cristina; de Lacerda Chaves Vieira, Gisele; de Carvalho Torres, Heloisa  
A proposta da educação permanente em saúde na atualização da equipe de saúde em diabetes  
mellitus

Revista da Escola de Enfermagem da USP, vol. 44, núm. 2, junio, 2010, pp. 531-537

Universidade de São Paulo

São Paulo, Brasil

Available in: <http://www.redalyc.org/articulo.oa?id=361033304041>

- How to cite
- Complete issue
- More information about this article
- Journal's homepage in redalyc.org

redalyc.org

Scientific Information System

Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal

Non-profit academic project, developed under the open access initiative

# A proposal of continuing health education to update health team professionals in diabetes mellitus

A PROPOSTA DA EDUCAÇÃO PERMANENTE EM SAÚDE NA ATUALIZAÇÃO DA EQUIPE DE SAÚDE EM DIABETES MELLITUS

UNA PROPUESTA DE EDUCACIÓN PERMANENTE EN SALUD EN LA ACTUALIZACIÓN DEL EQUIPO DE SALUD EN DIABETES MELLITUS

Andreia Cristina Seabra Rodrigues<sup>1</sup>, Gisele de Lacerda Chaves Vieira<sup>2</sup>, Heloisa de Carvalho Torres<sup>3</sup>

## ABSTRACT

The objective of the study was to report the experience of Continuing Health Education to update the health team of a Health Center about comprehensive and humanized care to individuals with type 2 diabetes. The methodology used to train the health teams was Continuing Health Education by means of educational workshops in diabetes focused on the problem-posing of the professional and educational process. Hence, it was sought to design a program for education in diabetes with a view to changing and reorienting the practice of the health team. Continuing Education helped to integrate the individuals, strengthened the professional commitment and developed the group awareness. The experience of including education in the everyday activities of the health teams helped to improve the integration among university, service and community, thus favoring the process of planning and organizing the educational program, valuing interdisciplinarity.

## KEY WORDS

Health education.  
Diabetes mellitus.  
Nursing.  
Patient care team.

## RESUMO

O objetivo do estudo foi relatar a experiência da Educação Permanente em Saúde na atualização da equipe de saúde de uma Unidade Básica de Saúde para a atenção integral e humanizada às pessoas com diabetes tipo 2. A metodologia de escolha para a capacitação das equipes de saúde foi a Educação em Permanente em Saúde, por meio de oficinas educativas em diabetes com enfoque na problematização do processo educativo e profissional. Buscou-se, assim, construir um programa de educação em diabetes visando a modificar e a reorientar a prática da equipe de saúde. A Educação Permanente contribuiu para a integração dos indivíduos, fortaleceu o comprometimento profissional e desenvolveu a consciência de grupo. A experiência de inserir o ensino no cotidiano das equipes de saúde favoreceu o progresso da integração entre universidade, serviço e comunidade, favorecendo o planejamento e organização do programa educativo, valorizando a interdisciplinaridade.

## DESCRIPTORES

Educação em saúde.  
Diabetes mellitus.  
Enfermagem.  
Equipe de assistência ao paciente.

## RESUMEN

El objetivo del estudio fue relatar la experiencia de la Educación Permanente en Salud en las actualizaciones del equipo de salud de una Unidad Básica de Salud para la atención integral y humanizada a las personas con diabetes tipo 2. La metodología de elección para la capacitación de los equipos de salud fue la Educación Permanente en Salud, a través de talleres educativos sobre la diabetes, con enfoque en la problematización del proceso educativo y profesional. Se buscó así construir un programa de educación en diabetes apuntando a modificar y reorientar la práctica del equipo de salud. La Educación Permanente contribuyó en la integración de los individuos, fortaleció el compromiso profesional y desarrolló la conciencia de grupo. La experiencia de insertar la enseñanza en la rutina cotidiana de los equipos de salud favoreció el progreso de la integración entre universidad, servicio y comunidad, facilitando el planeamiento y la organización del programa educativo valorizando la su faz interdisciplinaria.

## DESCRIPTORES

Educación en salud.  
Diabetes mellitus.  
Enfermería.  
Grupo de atención al paciente.

<sup>1</sup> Undergraduate Student of the Nursing School at Federal University of Minas Gerais. Belo Horizonte, MG, Brazil. andreiacseabra@terra.com.br <sup>2</sup> Undergraduate Student of the Nursing School at Federal University of Minas Gerais. Belo Horizonte, MG, Brazil. glcvi@yahoo.com.br <sup>3</sup> Post-doctorate in Public Health. Adjunct Professor at the Department of Applied Nursing, Nursing School at Federal University of Minas Gerais. Belo Horizonte, MG, Brazil. heloisa@enf.ufmg.br

## INTRODUCTION

Since the Brazilian health system has, among its purposes, the guarantee to systematically monitor subjects with chronic diseases, which affect the morbimortality of the population<sup>(1)</sup>, the Brazilian Ministry of Health has implemented the National Plan for the Reorganization of Care for Arterial Hypertension and Diabetes Mellitus. This plan aims at establishing guidelines and goals for the reorganization of care to these aggravated groups in the Unified Health System (UHS), investing in the update of health professionals from the basic network<sup>(1)</sup>. In order to operate this qualification, the Continuing Education in Health – PEH arises as an investment strategy for the professional qualification aimed at overcoming the deformations and deficiencies in the education of health professionals<sup>(2-3)</sup>.

In 2003, the National Policy of Continuing Education in Health, proposed by the Brazilian Ministry of Health to be the educational policy of the UHS, was approved by the National Health Committee and negotiated with the Tripartisan Intergovernmental Committee. The Continuing Education in Health is an educational activity of continuous character, whose guiding point is the transformation of the work process, a privileged learning center<sup>(2-3)</sup>. It aims at the educational practice that is oriented by the daily routine of the services, starting from the critical reflection about the problems regarding the care quality, assuring the collective participation - multiprofessional and interdisciplinary, favoring the construction of new knowledge and the exchange of experiences; and representing the effort of changing the public health network into a teaching-learning space in the work execution. Besides, it allows to question the educational actions in Diabetes that must be changed in order to improve the practice of health professionals who work in the educational program in Diabetes, enabling them to build health actions that lead users to think about their disease and self-manage their care<sup>(4-5)</sup>.

The Continuing Education in Health also meets new curricular guidelines proposed to graduation courses in the health area, since it aims the transformation of the health care model, strengthening the promotion and prevention of aggravations in the Unified Health System, especially Diabetes, offering integral care and autonomy to health professionals for the efficacy of the educational practice. It also aims at the education of a critical professional, who is able to learn, work in team, and consider the social reality to provide quality and human care<sup>(2-3)</sup>. It is a fact that the interest of health professionals, who are committed and dedicated to acquire knowledge, favor the transformation of the educational practice, aimed at developing abilities and learning for the self-administration of the care required by Diabetes, in order to promote a healthy condition to users.

Therefore, the proposal to work the Continuing Education in Health as an activity of the discipline Supervised Training in Nursing I from the Nursing Course of the Federal University of Minas Gerais (UFMG), developing educational actions about Diabetes Mellitus Type 2 and involving the participation of professionals from the Family Health Teams - FHT, professors and students was considered appropriate to generate the reflection of the professionals regarding the *doing* and the *thinking about how it's being done*, opening opportunities for the dialogue among the several types of knowledge, and for the construction of knowledge and critical and collective intelligence among those involved in the care of users with Diabetes. This articulation among the education, service, community and interdisciplinarity indicates an interactive character with high social and educational impact, and constitutes a privileged agency of the Continuing Education to lead combined actions and innovative experiences, in order to contribute to the implementation of a quality, equitable and comprehensive health care system<sup>(3)</sup>.

Some authors<sup>(5-6)</sup> add that educational programs in Diabetes, developed by updated health professionals, contribute to the decrease in hospitalizations and to the system users, who start to identify the diseases, to adopt measures for the reduction of risk factors and to receive a treatment that is capable of helping the changes in the behavior associated to the eating pattern and the increase of physical activity for the control of the disease and improvement of life quality.

...the interest of health professionals, who are committed and dedicated to acquire knowledge, favor the transformation of the educational practice...

## OBJECTIVE

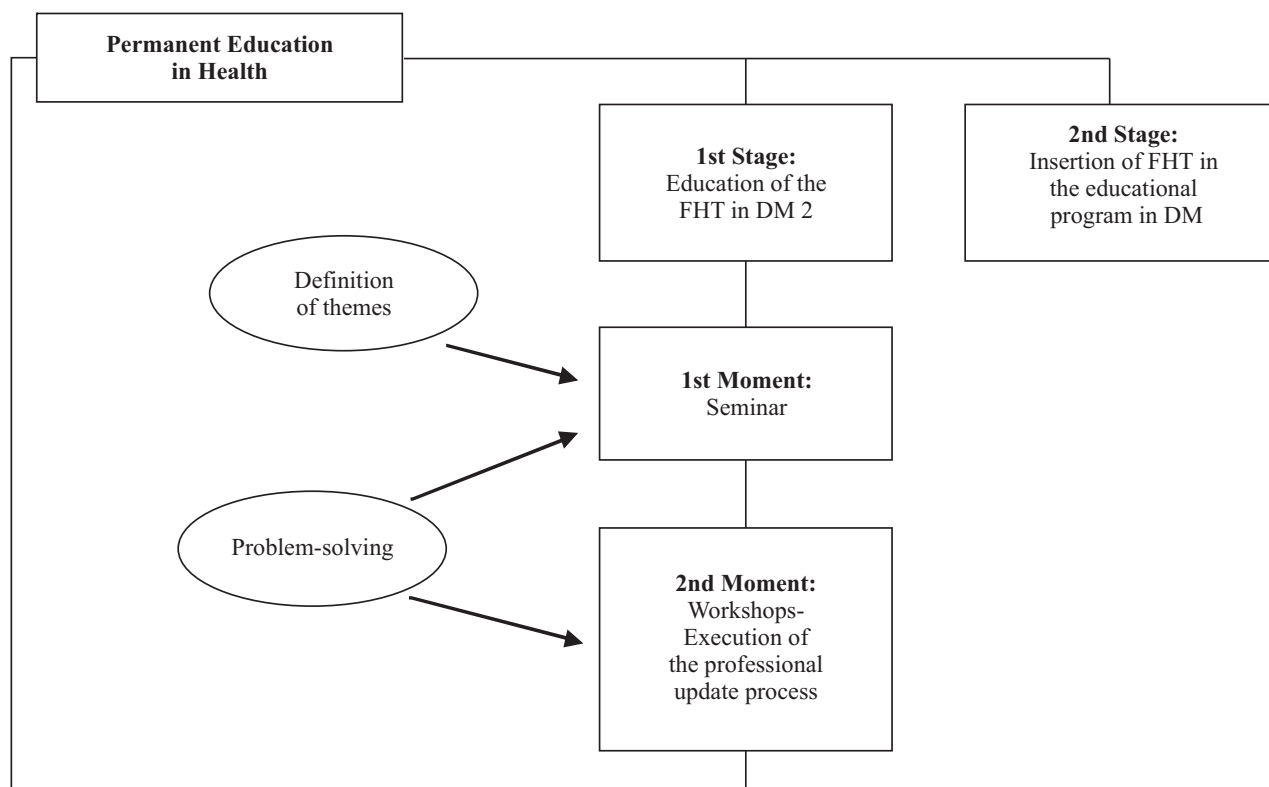
The objective of this study is to report the experience of the process of Continuing Education in Health through educational workshops in Diabetes, for the update of the family health team of a Basic Health Unit aimed at providing integral and humanized care to users with Diabetes Type 2.

## METHOD

The methodology used for updating family health teams in Diabetes was the Continuing Education in Health through educational workshops, which constitute the establishment of spaces for the promotion of learning with the collective, multiprofessional and interdisciplinary participation through the dialogue, contributing to the construction of new knowledge<sup>(7)</sup>. The study was carried out by professors and undergraduate students from the discipline Supervised Training in Nursing I, offered in the 8<sup>th</sup> period of the nursing course from the Nursing School of the Federal University of Minas Gerais – EE/UFMG in the period from August to December of 2006. The proposal was approved by the Committee of Ethics in Research (Report n. 443a/05).

The educational activities with the family health team were organized in two moments, as presented in Figure 1: 1<sup>st</sup> Moment – Seminar for the presentation and discussion of the intervention proposal, and 2<sup>nd</sup> Moment – Update of the health team through educational workshops about Diabetes, structured in three stages regarding the following aspects: conceptual update about DM, healthy nutrition and eating habits and the importance of practicing physical activities, diabetic

foot, self-monitoring. The themes were approached through recreational dynamics, educational games, case studies, board and lecture so that everyone present could externalize their knowledge, sharing it with the other members of the team, as described in Chart 1. The educational activities had the participation of nursing assistants and technicians, nurses, doctors, psychologists, dentists, social workers, Physiotherapy, Nutrition and Nursing professors and Nursing students.



**Figure 1** - Project proposed for the process of Continuing Education in Health - Belo Horizonte - 2006

Figure 1 presents the stages of the process of Continuing Education in Health developed in the Basic Health Unit (BHU). All health professionals were invited in advance, through posters displayed in visible places at the BHU. The agendas of the professionals from the family health team were reserved for the day and time scheduled for the meeting.

The following stages were established for the development of the workshop technique<sup>(8)</sup>: Warm-up of the participants with strategies that facilitate the expression, problem-solving of the questions, exchange process, analysis of

the articulation of the professional to the integral care of the individual. In this study, the authors have adapted this PEH proposal aimed at providing the participants with a space for individual and collective reflection about the routine of the health service and new possibilities to improve the care given to users with Diabetes.

The workshops were performed at the great hall of the Basic Health Unit, every fifteen days, and took about an hour and a half. The members worked in a circle in order to facilitate the discussion of the topics approached about the disease.

**Chart 1** - Program of the educational workshops about Diabetes, developed with the Health Team - Belo Horizonte - 2006

Workshops/ Themes	Development Proposal	Facilitating Techniques/Workshop Stages
<b>I</b> <b>Education in health about Diabetes</b>	<ul style="list-style-type: none"> <li>• Presentation of the experience of the health teams regarding the educational practices in Diabetes, highlighting the performance of each professional category</li> <li>• Possibilities of improving educational practices involving the performance of the multidisciplinary team</li> </ul>	<p>Warm-up: <i>Até que fogo persista.</i> <i>Não deixe o balão cair.</i></p> <ul style="list-style-type: none"> <li>• Development of the theme: Collective construction of the Board with educational practices in Diabetes, performance of the multidisciplinary team.</li> <li>• Synthesis of the group discussions.</li> </ul>
<b>II</b> <b>Plano Alimentar</b>	<ul style="list-style-type: none"> <li>• Discussion about eating habits.</li> <li>• Reflection about the instructions given by the professionals on the diet of users with Diabetes.</li> <li>• The performance of the multidisciplinary team in the elaboration of an eating plan suitable to the profile of the clients.</li> </ul>	<ul style="list-style-type: none"> <li>• Warm-up: <i>Which figures do I identify myself with?</i></li> <li>• Development of the theme:</li> <li>• Reflection of the participants about eating habits.</li> <li>• Combined elaboration of a food guide pyramid.</li> <li>• Construction of an eating plan according to the needs and life conditions of the user with Diabetes.</li> <li>• Synthesis of the group discussions.</li> </ul>
<b>III</b> <b>Atividade física</b>	<ul style="list-style-type: none"> <li>• Discussion about the importance of the physical activity for the control of Diabetes.</li> <li>• Unification of concepts discussed in the two previous workshops.</li> <li>• Evaluation of the educational process.</li> </ul>	<ul style="list-style-type: none"> <li>• Warm-up: Stretching Technique.</li> <li>• Experience and discussion of the technique for later use with the users.</li> <li>• Development of the theme:</li> <li>• Case study involving prevention and standardization of the procedures regarding the control of Diabetes.</li> <li>• Discussion of the attributions of the different family health professionals in educational activities and those for control of the disease.</li> <li>• Synthesis of the group discussions.</li> </ul>

A diagnostic was carried out with the health team regarding the need to plan workshops with community health agents (CHA) aimed at clarifying questions related to Diabetes so that they think about the importance of healthy eating habits and daily physical activities for the control of the

disease and for better life quality. The development of specific workshops is justified by the needs of the group regarding: the language, the content, the education level and the time availability. The workshops were organized by Nursing undergraduate students, as described in Chart 2.

**Chart 2** - Program of the educational workshops about Diabetes developed with Community Health Agents - Belo Horizonte - 2006

Target Public: Community Health Agent (CHA).		
Workshops/Themes	Development Proposal	Facilitating Techniques/Workshop Stages
<b>I</b> <b>Education in health about Diabetes</b>	<ul style="list-style-type: none"> <li>• Reflection about healthy life habits involving food and physical activity.</li> <li>• Discussion about Diabetes. Possibilities of prevention, treatment and monitoring.</li> <li>• Reflection about the educational practices in Diabetes and the performance of the multidisciplinary team.</li> </ul>	<ul style="list-style-type: none"> <li>• Warm-up: <i>Don't drop the balloon</i></li> <li>• Development of the theme: <i>What does this picture tell me?</i></li> <li>• Individual reflection about healthy eating habits and physical activity.</li> <li>• Construction of a food guide pyramid.</li> <li>• Analysis of a problem situation associated to the care of a user with Diabetes.</li> <li>• Synthesis of the group discussions.</li> </ul>
<b>II</b> <b>Performance of the CHA in the prevention and control of Diabetes</b>	<ul style="list-style-type: none"> <li>• Reflection about the practice of the CHA regarding the home visit and user forwarding to the BHU.</li> <li>• Discussion about strategies to improve the quality of the CHA service and the articulation of health actions with the service and the community.</li> </ul>	<ul style="list-style-type: none"> <li>• Warm-up: <i>What does it feel like to be an ACS?</i></li> <li>• Development of the theme: <i>Hot potato</i></li> <li>• Individual reflection about the CHA practice and his insertion in the family health team.</li> <li>• Construction of the Board with strategies to improve the care given to the user with Diabetes.</li> <li>• Synthesis of the group discussions.</li> </ul>

## RESULTS AND DISCUSSION

### **1<sup>st</sup> Moment: Seminar for the presentation and discussion of the intervention proposal**

The purpose of the seminar was to present the proposal of intervention to the service, to promote a space for the proposal of the Continuing Education in Health and to encourage the sensitization of the health team regarding the educational program in Diabetes Mellitus Type 2. A board was built with the profile of the users with Diabetes that corresponded to their coverage area, and then presented to the teams, evidencing the importance of the work with operating groups for the education and promotion of health. A schedule was suggested for the meetings offered to the health teams, with the proposal of update in diabetes and another proposal for the work with operating groups directed at the users. A suggestion box was placed at an accessible location for the suggestions of topics to be approached about the theme, thus enabling all participants to express their opinions.

The first moment, dedicated to the seminar for the presentation and discussion of the proposal of Continuing Education in Health, was fundamental to narrow our professional relations and identify the true learning needs. In this context, activities were guided according to the speeches of the health professionals regarding the work process, stimulating the exchange of information and knowledge among the participants.

The dynamics in circle and the exchange devices favor the significant learning, characterizing a moment in *continuum* for improving the quality of the care given, for its broad affinity to the routine of the professionals and the real users (implication). Besides, the intention was to use diversified methodological strategies, based on the dialogue and interaction, assuring a dynamic aspect to the activities. The process of Continuing Education in Health must happen in a favorable and interactive way, so the authors believe the methodological proposal of work through workshops assured the participative character and created opportunities of reflection and discussion about the experiences<sup>(9-10)</sup> of the participants, encouraging mutual learning and enabling the dialogue among the teams.

The suggestion box promoted the freedom to choose the topics to be discussed and, among them, there was a selection of those that would create a better learning opportunity in face of the theme diabetes<sup>(4)</sup>.

The presentation of the profile of the users with Diabetes who were treated at that unit promoted a reflective environment, stimulating the latent capability of detecting problems, since it evidenced that the great challenge of the health teams is to promote the compliance of the users to the treatment. The professionals recognize Diabetes as a serious public health problem and the most prevalent in the population treated at the primary health level<sup>(1)</sup> and

it is the main aggravation reported by the service user. Therefore, the stage of sensitization of the professionals was completed, which was a preponderant factor to confirm a conscious participation in the educational process.

### **2<sup>nd</sup> Moment: Update of the health team**

The workshops aimed to develop and update the health professionals about the theme Diabetes, focused on the following topics: physiopathology, physical activity and eating plan. The content was approached through recreational dynamics, flipbook, educational games, case study, board and lectures so that all participants could externalize their knowledge, sharing it with the other members of the team and providing constructive discussions about the approached themes. The professionals also helped each other find solutions for the raised questions. The Nursing undergraduate students planned and coordinated the workshops. The program of educational workshops on Diabetes was organized in three meetings, whose descriptions are given in Chart 1.

The meetings were permeated by problem-solving situations about the lack of prepare of the teams regarding "knowing how to teach". The professionals expressed and discussed their difficulties, mentioning that their academic education was translated by traditional knowledge, whose health practices are established by the simplistic idea of applying the transmitted knowledge. Analyzing their professional performance, they reported that the high demand of users in the service often lead them to prescriptive practices that separate the individuals from their life context, transforming them into symbols of the disease. In this context, the Continuing Education in Health becomes legitimate in the transformation of the work process for the improvement of the health practices in the services, a tool that is capable of leading the relations professionals-users with problem-based pedagogical proposals, designed for better life quality and health promotion<sup>(11-13)</sup>. Being a process that involves long term results, the Continuing Education in Health is presented as a way to the dissemination of the pedagogical capability, to emphasize the educational potential in the institutional space<sup>(14-16)</sup>. The strategy proposed to facilitate the group expression was considered efficient and well accepted by the health team.

Regarding the observed possibilities, the use of the workshops allows to perceive that several possibilities were created, as highlighted below.

In the 1<sup>st</sup> workshop, specifically, it was observed that some participants already knew the concept of the disease, with a prevalence of common sense conceptions that are almost always related to Diabetes, which is the presence of sugar in the blood. The professionals got involved in the activities, however, initially, only doctors expressed their opinions and questions. Other professionals only communicated among themselves. The group gradually adapted better, which favored the discussions about the complica-



tions presented by the disease. A horizontal and dialogic relation was established, from the point of view of the human relation that is permeated by trust among the team, facilitating the educational approach of the knowledge related to the discussed theme, which was presented through the simulation of the transportation of glucose to the cell, carried by insulin.

The 2<sup>nd</sup> workshop lasted longer than it was scheduled for the program. Participants were excited with the topic about healthy eating habits and eating plan, expressing many doubts and making suggestions for the continuation of the work. The raised questions supported the discussion, the clarification of doubts and the effective participation, indicating the incorporation of new elements in the work practice of the professionals. An opportunity was created for the development of strategic approaches to orient the care to the user with Diabetes, since the professionals built new knowledge, contributing to the reformulation of the care given, through the dialogue.

In the 3<sup>rd</sup> workshop, the professionals were more familiar with the theme physical activity. The compliance was inferior, since the highest volume of activities is concentrated in this morning period. The participants exchanged information and knowledge that favored the construction of the systematized care to the user with Diabetes. The pedagogical strategies based the entire educational process, being positively evaluated by the professionals who emphasized the benefits of learning and narrowing the relations. Therefore, the Continuing Education in Health contributed to the integration of the individuals, strengthened the professional commitment and developed the group conscious.

The content discussed during the workshop encouraged the participants to rethink their knowledge, values and myths regarding healthy eating habits and Diabetes. Based on the recovery and reconstruction of knowledge, it was possible to broaden the discussion about the performance of the different health professionals in the prevention of the disease, the care given to the user with Diabetes at the health unit and the importance of the community participation in the elaboration of strategies for the promotion of healthy life habits<sup>(4-6)</sup>.

The workshops for community health agents (CHA) used recreational and interactive techniques, as presented in Chart 2, aimed at clarifying questions about diabetes and healthy eating habits, and a food guide pyramid was presented, with the necessary instructions. There were discussions about the specific actions of the CHA and the group reflected about the community participation in actions that aim at the improvement of the community life quality.

The presentation of this workshop to the community health agents (CHA) was important due to the need to emphasize the specific problem-situations of this category and the convenience of listening to them longer for the continuity of the work. The time unavailability of the CHA

was also considered, since their main work location is the *street*. It became necessary to adjust a better time for the participation of the CHA, as the schedule established with the other participants in the PEH was found incompatible. The CHA were highly satisfied after the execution of this educational activity, some reported it was a rather gratifying experience that should be repeated. The workshop provided a space for reflection about the possibilities of performance of the CHA in the prevention of Diabetes and the importance of his work as a member of the family health team.

In the synthesis of the activities, the positive repercussion of the workshops among the participants became evident, being considered a recreational, interactive, motivational and easily comprehended pedagogical strategy to develop future educational programs in health. The workshop proposal as an educational modality favored the discussion about the challenges and difficulties for structuring the practice of the education in Diabetes. On the other hand, they showed that it is possible to use and combine strategies for the prevention and promotion of health, orienting the continuation of the actions.

## FINAL CONSIDERATIONS

Chronic diseases, specially Diabetes Mellitus, are getting more prevalent in the Brazilian population, and the update of professionals in the health area is absolutely necessary. Sensitizing and involving the team in discussions about their routine, the current information, the challenges of greater integration to the lifestyle of the users and those in the construction of the self-management of therapeutic attitudes and processes contribute significantly to change the situation of vulnerability that the disease imposes to its carriers, as well as to reduce or avoid its complications.

In a general way, the process of Continuing Education in Health contributed to improve the qualification of the professionals, unified and systematized the care to the user with Diabetes in terms of integrality, education in health and development of the self-management. The exchange and analysis of information favored the multiprofessional and interdisciplinary learning, in which action-reflection-action were conceived at the same time. The professionals made a self-analysis, focusing the work process, aimed at transforming the existing practices. In this environment, the learning space was transferred to the service environment and considered as a source of knowledge as well.

This experience contributed to the progress of the integration among university, service and community, preparing professionals through the development of the critical and creative capability in order to work in educational activities with the population. The presented proposal appears as a strategy of educational intervention that broadens the knowledge of the social subjects assisted by the public health services. At the end of this qualification process,

participants manifested their wish to continue the workshops as a way to update the health team in the care to the user with Diabetes. This study generated the necessary de-

velopment for research regarding the evaluation of the education in health in operating groups of users with Diabetes Mellitus in the Family Health Program.

## REFERENCES

1. Brasil. Ministério da Saúde. Plano de Reorganização da Atenção à Hipertensão Arterial e ao Diabetes Mellitus. Proposta de Educação Permanente em Hipertensão Arterial e Diabetes Mellitus para os Municípios com população acima de 100 mil habitantes. Brasília; 2002.
2. Brasil. Ministério da Saúde. Portaria n. 198/GM/MS, de 13 de fevereiro de 2004. Institui a Política Nacional de Educação Permanente em Saúde como estratégia do Sistema Único de Saúde para a formação e desenvolvimento de trabalhadores para o setor e dá outras providências [legislação na Internet]. Brasília; 2004. [citado 2008 maio 15]. Disponível em: [http://www.unifesp.br/dmedprev/planejamento/pdf/port\\_GM198.pdf](http://www.unifesp.br/dmedprev/planejamento/pdf/port_GM198.pdf)
3. Ceccim RB. Educação permanente em saúde: desafio ambicioso e necessário. *Interface Comum Saúde Educ.* 2005; 9 (16):161-8.
4. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Diabetes mellitus. Brasília; 2006. (Cadernos de Atenção Básica n. 16).
5. Tavares DMS, Rodrigues RAP. Educação conscientizadora do idoso diabético: uma proposta de intervenção do enfermeiro. *Rev Esc Enferm USP.* 2002;36(1):88-96.
6. Torres HC, Franco L, Stradioto M, Hortale V, Shall V. Avaliação estratégica de educação em grupo e individual no programa educativo em diabetes. *Rev Saúde Pública.* 2009;43(2): 431-9.
7. Freire P. Pedagogia da autonomia: saberes necessários à prática educativa. 24a ed. São Paulo: Paz e Terra; 2002.
8. Chiesa AM, Westphal MF. A sistematização de Oficinas Educativas Problematicadoras no contexto dos Serviços Públicos de Saúde. *Saúde Debate.* 1995;(46):19-22.
9. Rodríguez SAM, Torres TT, Obeso AF, Rieumont ER, Ricardo AH, Rodríguez JR. Educación permanente y perfeccionamiento del médico y la enfermera de la familia en Cuba: el caso de Pinar del Río. *Educ Med Salud.* 1993;27(4):528-40.
10. Ceccim RB. Educação Permanente em Saúde: descentralização e disseminação de capacidade pedagógica na saúde. *Ciência Saúde Coletiva.* 2005;10(4):975-86.
11. Silveira LMC, Ribeiro VMV. Grupo de adesão ao tratamento: espaço de "ensinagem" para profissionais de saúde e pacientes. *Interface Comum Saúde Educ.* 2005;9(16):91-104.
12. Merhy EE. O desafio que a educação permanente tem em si: a pedagogia da implicação. *Interface Comum Saúde Educ.* 2004;9(16):161-77.
13. Torres HC, Monteiro MRP. Educação em saúde sobre doenças crônicas não transmissíveis no programa de saúde da família de Belo Horizonte - MG. *Rev Min Enferm.* 2007;10(4): 402-6.
14. Ceccim RB, Pinheiro RM, Ruben A. Ensinar saúde: a integralidade e o SUS nos cursos de graduação na área da saúde. Rio de Janeiro: IMS/UERJ; 2006.
15. Paschoal AS, Mantovani MF, Méler MJ. Percepção da educação permanente, continuada e em serviço para enfermeiros de um hospital de ensino. *Rev Esc Enferm USP.* 2007;41(3): 478-84.
16. Nepomuceno LMR, Kurcgant P. Uso de indicador de qualidade para fundamentar programa de capacitação de profissionais de enfermagem. *Rev Esc Enferm USP.* 2008;42(4):665-72.