



HEALTH PROFESSIONALS' PERCEPTIONS REGARDING INTERDISCIPLINARY WORK IN EDUCATIONAL STRATEGIES IN DIABETES*

PERCEÇÃO DOS PROFISSIONAIS DE SAÚDE SOBRE O TRABALHO INTERDISCIPLINAR NAS ESTRATÉGIAS EDUCATIVAS EM DIABETES

PERCEPCIÓN DE LOS PROFESIONALES DE SALUD ACERCA DEL TRABAJO INTERDISCIPLINARIO EN LAS ESTRATEGIAS EDUCATIVAS EN DIABETES

Gizele Ferreira David¹, Heloisa de Carvalho Torres²

The objective was to analyze health professionals' perception regarding the educational strategies in diabetes undertaken by the interdisciplinary team in primary care. A total of twelve health professionals in primary care units in Belo Horizonte in the state of Minas Gerais (MG) participated in focus groups in March – April 2011, aiming to problematize the experience of the interdisciplinary work in the educational practice, and the factors which act as facilitators or barriers for the effectiveness of diabetes education. The results were organized based on the identification of the categories: 1) Issues related and/or attributed to the clientele itself, 2) Professional training; 3) Multidisciplinary work and 4) Planning of educational actions. The study showed the importance of planning and evaluating the educational practices, and the integration of interdisciplinary work in the interventions as a means of establishing strategies for prevention and control of the disease, and promotion of health in relation to it.

Descriptors: Health Education; Patient Care Team; Diabetes Mellitus; Primary Health Care; Nursing.

Objetivou-se analisar a percepção dos profissionais de saúde sobre as estratégias educativas em diabetes realizadas por equipe interdisciplinar na atenção primária. Um total de doze profissionais de saúde inseridos em unidades básicas, Belo Horizonte-MG, março-abril, 2011, participaram dos grupos focais objetivando problematizar a experiência do trabalho interdisciplinar na prática educativa e os fatores que agem como facilitadores ou barreiras para a efetividade da educação em diabetes. Os resultados foram organizados a partir da identificação das categorias: 1) Questões relacionadas e/ou atribuídas à própria clientela, 2) Capacitação profissional; 3) Trabalho multidisciplinar e 4) Planejamento das ações educativas. O estudo mostra a importância de se planejar e avaliar as práticas educativas, a inserção do trabalho interdisciplinar nas intervenções como forma a estabelecer estratégias de promoção, prevenção e controle da doença.

Descritores: Educação em Saúde; Equipe de Assistência ao Paciente; Diabetes Mellitus; Atenção Primária à Saúde; Enfermagem.

El objetivo fue analizar la percepción de profesionales de la salud acerca de las estrategias de educación en diabetes realizadas por equipo interdisciplinario en la atención primaria. Un total de doce profesionales de salud insertados en unidades básicas, Belo Horizonte-MG-Brasil, marzo-abril 2011, participaron de los grupos focales con objetivo de problematizar la experiencia del trabajo interdisciplinario en la práctica educativa y los factores que actúan como facilitadores u obstáculos para la eficacia de la educación en diabetes. Los resultados fueron organizados desde la identificación de las categorías: 1) Cuestiones relacionadas y/o asignados a los propios clientes, 2) Formación profesional, 3) Trabajo multidisciplinar, 4) Planificación de las actividades educativas. El estudio señala la importancia de la planificación y evaluación las prácticas educativas, la inclusión del trabajo interdisciplinario en las intervenciones como forma de establecer estrategias de promoción, prevención y control de enfermedades.

Descritores: Educación en Salud; Grupo de Atención al Paciente; Diabetes Mellitus; Atención Primaria de Salud; Enfermería.

*Extract from the dissertation 'Evaluation of the professional attitudes in the educational practices in diabetes mellitus in primary care', Master's Program in Nursing, School of Nursing, Universidade Federal de Minas Gerais, 2011.

¹RN, MA in Nursing, School of Nursing Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brazil. E-mail: gizeledavid@hotmail.com

² RN, PhD in Health Sciences, Adjunct Professor, Department of Applied Nursing, School of Nursing, Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brazil. E-mail: heloisa@enf.ufmg.br

Corresponding author: Heloisa de Carvalho Torres

Avenida Alfredo Balena, 190, Santa Efigênia, Belo Horizonte, MG, Brazil. CEP: 30130-100. E-mail: heloisa.ufmg@gmail.com

INTRODUCTION

The educational actions in Diabetes Mellitus (DM), based in concepts of educational and behavioral theory, such as knowledge, skills and attitudes regarding the disease, must be constructed based on a comprehensive care model, which aims for humanization and the commitment to attending the service users' real needs, taking into account their everyday life and the participation of different types of health professional⁽¹⁾.

The effectiveness of the educational proposals includes the training of the professionals and health teams based on the perspective of the socio-environmental determinants which influence the health and illness process, but above all on the adoption of a dialogic model which values the community's knowledges, adding them to scientific knowledge and transforming them when appropriate⁽¹⁻⁴⁾. This construction of knowledge must be enriched by interdisciplinarity, which is characterized by the exchange of differing knowledges which transcend those of the health area and encompass other areas, such as the social and human areas. For this, it is necessary to break with the fragmented and determinist vision constituted by isolated disciplinary bases, and adopt a model which contextualizes ideas through horizontalized relationships and the exchange of experiences⁽⁵⁾.

In like manner, authors⁽⁵⁻⁶⁾ add that to achieve positive results with education in diabetes, it is necessary to establish interdisciplinary work between the health professionals, updated knowledge on the disease, pedagogical skills, and effective communication, listening and comprehension, as well as the ability to negotiate with individuals and the use of dynamic and interactive strategies with a view to the reduction of barriers to quality attendance to the individual.

In the attempt to provide health professionals with the experience of interdisciplinary work, an educational program in diabetes in Primary Care was

implanted, based on the cognitive, social and cultural aspects in the construction of the knowledges and skills, seeking the dialectic between the knowledges and the action. Because of being an innovative undertaking in professional training, it was sought to analyze the program based on the professionals' experience, judging that their experience would provide the necessary support which responds to the requirements of the primary health care services proposed by the Unified Health System (SUS).

This study's aim was to analyze the perception of the health professionals regarding the educational strategies in diabetes undertaken by the interdisciplinary team in Primary Care.

METHOD

The present research is based on the case study, characterized by deepening the knowledge of one or few objects in a way that permits their wide and detailed knowledge with a qualitative approach of the descriptive-exploratory type⁽⁷⁾. It was undertaken in two Health Centers in the East region of Belo Horizonte in the state of Minas Gerais (MG), in the period March – April 2011. This locale was chosen due to the fact of the undertaking of the Project titled "Evaluation of the Actions of Health Promotion in Diabetes in the Family Health Program in Belo Horizonte/MG" resulting from the link with university services. Thus, all the health professionals who worked in the DM2 educational program were invited to participate in the study.

Data was collected using the focus group technique, with the objective of problematizing the experience of the interdisciplinary work directed at the educational practices in diabetes with the participation of professionals from varying areas of knowledge, as well as the raising of positive points and the barriers /difficulties in undertaking the program. A focus group

occurred in each Health Center, lasting approximately an hour and a half.

The focus group technique studies the relationships and representations of different groups of professionals, including the varying work processes, and also the population, in addition to this, the moderator must be a neutral figure able to encourage the participants while at the same time not disclosing in any way her own views⁽⁸⁾.

The meetings were guided by the following issues: importance of the multidisciplinary knowledges as facilitators in the educational activity, integration between the professionals and service users, changes occurred in the educational program in diabetes, resolution of problems/difficulties during the educational practice, and suggestions for improvements and innovations.

So as to maintain anonymity, the numbering (P1, P2, P3, P4, ..., P10) was adopted in the interview, for distinguishing the participants. The material from the focus groups was recorded manually, recorded in audio form, systematized and categorized so as to compose a database, considering recurring opinions, dissensions, and agreements. Following that, the data was processed and interpreted based on the focus of thematic analysis⁽⁸⁾.

The findings were grouped in categories, taking into account the aspects emphasized by the health professionals. The categories present the meanings of the social actors, their aspirations, attitudes, beliefs and values, involved in the entire process of knowledge, reflecting its proposals and guidelines for the routine work. The main categories resulting from the analysis of the material have to do with: 1) Issues related and/or attributed to the clientele itself, 2) Professional training, 3) Multidisciplinary work and 4) Planning of the educational actions.

The study was approved by the Research Ethics Committee of the Municipal Health Department of Belo Horizonte - MG (N. 0024.040410.203.09), having complied with the requirements established by Resolution N. 196/96 of the National Health Council.

RESULTS

Among the health professionals who worked in the DM2 educational program, some did not attend, due to holidays, being on medical leave, or having other activities arranged on the day. 12 professionals participated in the study, these being: two physiotherapists, two pharmacists, two nutritionists, three nurses, two psychologists and one doctor. The intervention owes its integrity to the effectiveness of the program in its implantation/implementation, being well received by the professionals and implanted in line with what was planned, and with good quality, and lasting one year.

The educational program was effective in the implantation, and its implementation in the two centers did not diverge much due to the similarity of the context in which these centers are inserted within the network of the municipality of Belo Horizonte. The process was well-received by the professionals and followed all the stages of the planning, seeking a standard of quality and adaptation to the context when necessary.

There is emphasis, as shall be seen below, on group actions undertaken, professional training in both the pedagogical sphere and technical-scientific knowledge, the linking of the service user with the service, and consequently to the groups, as well as valorization of the interdisciplinarity.

Issues related and/or attributed to the clientele itself

This issue was addressed initially through some participants' complaint regarding the difficulty of

conciliating a methodology consistent with the service users' low cognitive and educational level, resulting in difficulty in reaching them in relation to what was proposed in the educational practice. *The users here are basically illiterate, we repeat the same stuff over and over so that they'll learn through repetition, but depending on the person's cognitive level, she'll have a lot of difficulty in learning about the disease. The majority of the people who come to these meetings are elderly and have great difficulty in understanding... we explain, and you finish talking, and realize that the person hasn't assimilated a thing* (P1).

According to the participants, the Primary Care professionals contend with the social determinants of health, which translate as the service users' low cognitive and educational level. The question of how to get around this obstacle in practice leads to the incorporation of a model of education and health promotion based on empowerment; having as a principle the undertaking of participative learning, the creation of links, and based in the service users' needs.

Professional training

When discussing the importance of the training of the professionals, everybody thinks that the proposal is interesting, as there is always new information appearing for the treatment of the disease. It is clear that most of the time, the professionals end up carrying out the educational practices with little preparation, creating insecurity, doubts and dissatisfaction with the final product of the work, as may be seen in the account below. *I think that to do group work you need creativity. The training for group work is always welcome. We never had training for group work, only now in this educational program* (P4).

The training is seen as the solution to the problems related to the techniques of group work and of updating the technical-scientific baggage. This difficulty is based on these professionals' academic training, which is directed at the traditional knowledges, which are not dialogic, not emancipatory, and not based on the shared construction of knowledge, in which the health practices

were translated by the simplistic idea of transmission of knowledges and change of behavior.

In addition to the training, the multidisciplinary work was placed by the participants as an essential point for the performance of the educational program as addressed below.

Multidisciplinary work

The professionals emphasize the importance of the multidisciplinary work in the interdisciplinary action during the educational practices, valuing the various knowledges which complement each other and facilitate the approach to the user, as presented in the account below. *The knowledge completes that of the other professional, we learn from the nutritionist, the physiotherapist, and the other professionals, each one sees it differently and from the moment we work together, we can see the educational practice as less fragmented, we can do it all, it is very advantageous* (P12).

The authors emphasize the report that each one's knowledge helps when the service users have doubts, valuing the interdisciplinary work, adding the importance of mutual learning, as highlighted in the following account. *It's important, because the user really does need to have the view of other areas. Because if we put just one professional in the group to talk about the physiopathology, the application of the insulin, just these questions, it remains directed only at this aspect. And when other professionals work, we can see the user as a whole* (P3).

The interdisciplinary work is a form of valorization of the professionals and the users, being seen, from this aspect, as an action which facilitates the educational practices.

Planning of the educational actions

The interviewees' discourses left clear some points to be thought about through the experience that they had: it is important to create strategies which facilitate the communication between the professionals and the users in order to improve the results of the educational practices. *The physiotherapist, the pharmacist and the nutritionist participate in this group, the group has an interactive dynamic, because the users have a space to talk about their problems, they*

have a very hard life, and for you to understand them, you have to do it like this, sometimes putting that problem to the group suddenly, listening, hearing various opinions, it's as if the individual were talking, it's impressive how it helps, they leave the meetings more relieved. (P7).

The account above points to understanding the social-cognitive aspect and the language of the user in the adoption of the dialogic model which values the community's knowledges, adding them to the scientific knowledges and to the use of dynamic and interactive strategies aiming for the reduction of barriers to quality attendance to the individual, in addition to the planning of the educational strategies such that the DM program occurs in a way that is useful to both sides and, principally, from the point of view of the service user.

Regarding the discussion on adapting the planning of actions for the educational activity, the interviewees said that they try to organize themselves prior to the meetings. *We always discuss in the meeting once a month regarding the group, exchange ideas on what we're going to do, what material we'll use, and if the material is to be prepared, the professional talks with the colleagues from the university who coordinate the groups with the service* (P4).

It may be seen that planning is seen as an important instrument for achieving better results during the educational process. This would happen, as mentioned by some of the interviewees, through an articulation between the professionals and the academics to arrange the activities in the educational process ahead of time and not to do them without prior discussion.

This planning is essential so that on the day of the group, the user may actively participate in the construction of knowledge and in understanding the guidance, as well as the identification of his or her limitations in the educational process.

DISCUSSION

It was observed, however, that although present in the educational activities, the multiprofessional and

interdisciplinary actions are not always translated concretely into learning strategies. The difficulties for undertaking the group work are because of the training of the professionals in the traditional pedagogical model and the distancing from the social responsibility and link with the user, discouraging the undertaking of actions which require greater dedication⁽⁹⁻¹⁰⁾.

The systematization of the educational activities in DM2 is capable of offering support for the development of interdisciplinary and humanized methodologies of care⁽¹¹⁾. The open-ness to new methodologies of production of knowledge through the process of human care allows a different perspective on the outlines of the health/illness process⁽¹²⁻¹³⁾. The contributions of health education in the interdisciplinary work show a significant result in the promotion of the self-care of the user with DM2 and in the organization of the health services. In addition to this, it makes interaction possible between the areas of work. This study shows that the educational practices in diabetes must be discussed and evaluated, as they have a positive impact when undertaken by trained professionals in a systematized way and with emphasis on interdisciplinary work.

One should reflect on the importance of Primary Care being able to invest in health education strategies, based on pedagogical theories such as the dialogic. The formation of reflexive spaces and continuous training and education of the professionals in the health services vis-à-vis the valorization of the users' experiences are crucial initiatives, creating an environment which is propitious for the elaboration and acceptance of new information⁽⁹⁻¹¹⁾. The information and scientific evidence only make sense if they can be related to the previous experiences and daily life of the service users, who must be considered as active subjects in the educational process. In addition to this, the health education practices have to deal with the question of how and when the new information incorporated creates changes

in attitudes and behaviors. Knowledge and empowerment are important mechanisms in the educational strategies, but are frequently insufficient to cause behavioral changes. Changes in attitudes and habits involves the incorporation of new values which need to be shared socially⁽¹²⁻¹³⁾. Thus, educational activities can be effective, but the results and impacts may not be immediate. Changes of behavior need to be assimilated socially, that is, in reference groups, such as among family members, friends and work colleagues, among others.

It is important to understand that the educational strategies centered on risk factors for health only make sense to the users when associated with their life and work conditions. It is necessary for the educational proposals to problematize the social inequalities as determinants for health and the quality of life of individuals and the community⁽¹²⁾.

Corroborating this data, a study⁽¹⁴⁾ shows that the professionals show an awareness of the need to structure the educational process in relation to the organization and planning of the teaching and learning activities. The difficulties in dealing with dynamics, whether through lack of habit and/or knowledge, indicate the importance of the standardization of the educational process, and of the involvement with other professionals, so as to promote the diffusion of the knowledge⁽¹⁵⁾.

Interdisciplinarity makes the contact with different structures possible, offering the health professional conditions to perceive the person as a whole, going beyond the specific character of his or her academic training, bringing new forms of cooperation and communication with the users, overriding the valorization of the biological conception of the health and illness process⁽¹⁶⁾. It substitutes the way of transmitting and producing the knowledge, broadening the vision of the world, of the context, and of each one

of us as a person and a professional. Thus, we can talk of interdisciplinarity from the moment that there is communication between concepts and disciplines giving rise to a new knowledge⁽¹²⁾.

This forces us to face the question of the integrity of the intervention, of its duration and of the sustainability of the educational strategies for it to be possible to observe more effective results. There is a logical chain in the anticipated impact of the educational programs in DM2 which needs to be observed: first, changes must occur in the relationship between professionals and patients, creating conditions which are propitious for the exchanging of knowledges, followed by changes in the patients' perception of the disease and its main risk factors, creating autonomy in the self-care and, finally, glycemic control. This reveals to us the complexity involved in the educational programs and strategies⁽¹⁶⁾. It is important to understand that the educational strategies centered on the risk factors to health only make sense to the users and patients when associated with their life and work conditions, as Paulo Freire emphasized, there is no knowledge separated from an active engagement or involvement of the person who wants to know, with that which he or she wants to know. It is necessary for the educational proposals to problematize both the risk factors and the social inequalities as determinants for the health and quality of life of individuals and communities⁽¹⁷⁻¹⁸⁾.

The importance of the formation of this competence during undergraduate studies, which seeks the student's autonomy and responsibility regarding the learning, is to form a critical and up-to-date professional who is capable of promoting changes with the work team and the community. Education must be articulated between theory and practice, in the active participation of the student and in the problematization of the context⁽¹²⁻¹³⁾.

For interdisciplinarity to occur, it is necessary to develop joint work, in which the object of study and the methods must be gradually established by the team, there being reciprocity, mutual enrichment and horizontalization of the power relationships. The problems' solution requires subjects who are active and responsible for the success of the actions, engaged in processes of shared learning, open-ness and formation of networks, the principle of the autonomy of the members of the groups, cooperation, working on the differences and the communication of the scientific findings⁽¹⁸⁾.

CONCLUSION

The principal categories resulting from the analysis of the material relate to: Issues related and/or attributed to the clientele itself, Professional training, Multidisciplinary work, and Planning of the educational actions.

The Primary Care professionals contend with the social determinants of health, which are translated, among other factors, by the low educational level of the users. The question of how to get around this obstacle in practice leads to the incorporation of a model of education and promotion in health which is based on empowerment, having as its principle the development of participative learning, the creation of links and being based in in the users' needs.

This is a model which recovers health as a socially constructed practice, and understood simultaneously within an institutional and strategic focus, related to reflexive contexts in which the social agents are inserted. In this case, it is necessary for the educational strategies to be not only associated with an interdisciplinary perspective, but also to encourage intersectorial actions so important for changing the assistential model of Primary Care, so discussed in the ambit of the SUS.

ACKNOWLEDGMENTS

This research was financed by the Research Support Foundation of the State of Minas Gerais, supported by the Center for Management, Education and Evaluation in Health of the Department of Applied Nursing of the School of Nursing of the Federal University of Minas Gerais.

COLLABORATIONS

David GF and Torres HC contributed with analysis, data interpretation, and writing of the article. Torres HC contributed by approving the final version to be published.

REFERENCES

1. Shaw JE, Sicree RA, Zimmet PZ. Global estimates of the prevalence of diabetes for 2010 and 2030. *Diabetes Res Clin Prac.* 2010; 87(1):4-14.
2. Centers for Disease Control and Prevention. National diabetes fact sheet: national estimates and general information on diabetes and prediabetes in the United States, 2011. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2011.
3. Rodrigues ACS, Vieira GLC, Torres HC. A proposal of continuing health education to update health team professionals in diabetes mellitus. *Rev Esc Enferm USP.* 2010; 44(2):531-7.
4. Araújo MBS, Rocha PM. Trabalho em equipe: um desafio para a consolidação da estratégia de saúde da família. *Ciênc Saúde Coletiva.* 2007; 12(2):455-64.
5. Matos E, Pires DEP. Práticas de cuidado na perspectiva interdisciplinar: um caminho promissor. *Texto Contexto Enferm.* 2009; 18(2):338-46.
6. Albuquerque VS, Batista RS, Tanji S, Moço, ETSM. Currículos disciplinares na área de saúde: ensaio sobre

- saber e poder. *Interface Comunic Saude Educ.* 2009; 13(31):261-72.
7. Gil AC. *Como elaborar projetos de pesquisa.* 4ª ed. São Paulo: Atlas; 2002.
8. Minayo MCS. *O desafio do conhecimento: pesquisa qualitativa em saúde.* 11ª ed. São Paulo: Hucitec; 2008.
9. Torres HC, Amaral MA, Amorim MM, Cyrino AP, Bodstein R. Training of professionals, acting in primary health care, in Diabetes Mellitus education. *Acta Paul Enferm.* 2010; 23(6):751-6.
10. Frigo LF, Silva RM, Mattos KM, Boeira GS, Manfio F, Piais E, Mendes TG. Ação educativa interdisciplinar para pacientes com diabetes na atenção básica: uma revisão bibliográfica. *Rev Epidemiol Control Infect.* 2012; 2(4):141-143.
11. Monteiro MM, Figueiredo VP, Machado MFAS. Formação do Vínculo na Implantação do Programa Saúde da Família numa Unidade Básica de Saúde. *Rev Esc Enferm USP.* 2009; 43(2):358-64.
12. Sousa IF, Bogo D, Bastos PRHO. Formação interdisciplinar para atuação no sistema único de saúde: síntese de artigos publicados no Brasil. *Rev Saúde Com UFMT.* 2011; 9(2):49-59.
13. Torres HC, Salomon IMM, Jansen AK, Albernaz PM. Interdisciplinaridade na Educação em Diabetes: Percepção dos Graduandos e Enfermagem e Nutrição. *Rev Enferm UERJ.* 2008; 16(3):351-6.
14. Torres HC, Rozemberge B, Amaral MA, Bodstein RCA. A percepção dos profissionais de saúde da atenção primária sobre educação em diabetes mellitus no Brasil. *BMC Public Health.* 2010; 10:583-8.
15. Torres HC, Monteiro MRP. Educação em Saúde sobre Doenças Crônicas Não-Transmissíveis no Programa de Saúde da Família em Belo Horizonte. *Rev Min Enferm.* 2006; 10(4):402-6.
16. Loch-Neckel G, Seemann G, Eidt HB, Rabuske MM, Crepaldi MA. Desafios para a ação interdisciplinar na atenção básica: implicações relativas à composição das equipes de saúde da família. *Ciênc Saúde Coletiva.* 2009; 14(1 Suppl):1463-72.
17. Freire P. *A educação como Prática da Liberdade.* 34ª ed. Rio de Janeiro: Paz e Terra; 2011.
18. Borbal AKOT, Marques APO, Leal MCC, Ramos RSPS, Guerra ACCG, Caldas TMC. Adherence to drug therapy in diabetic elderly. *Rev Rene.* 2013; 14(2):394-04.