

## THE INTERFACE OF TEACHING, RESEARCH AND EXTENSION IN UNDERGRADUATE COURSES IN HEALTH

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*This article aimed to describe and evaluate the extension program "Integrating knowledge to the family integral care" composed of five projects that aimed to enrich knowledge and develop skills in the academic field, to accomplish health actions, based on the families' and community' needs. A total of 33 faculties from the nursing, medical and biomedical schools at the "Triângulo Mineiro Federal University" participated in the projects during eight months in the "Family Health Program", out-patient clinics and at the School Hospital, attending 2,000 clients. The faculty members were subjects in their own learning process, experiencing and reflecting upon this social reality. The program also favored inter-institutional integration, as well as, showed connection between teaching-research-extension.*

**DESCRIPTORS:** teaching; research; community-institutional relations; education, nursing; diploma programs; consumer participation; family

## INTERRELACIÓN ENSEÑANZA, INVESTIGACIÓN, EXTENSIÓN EN LOS CURSOS DE PREGRADO EN SALUD

*Este artículo tuvo por objetivo describir y evaluar el programa "Integrando conocimientos para la atención integral a la familia", compuesto por cinco proyectos que visaron ampliar conocimientos y desarrollar habilidades en el académico, para la realización de acciones de salud, con base en las necesidades de la familia y comunidad. Participaron 33 académicos de los cursos de enfermería, medicina y biomedicina de la Universidad Federal del Triángulo Mineiro", por ocho meses en los Programas de Salud de la Familia, ambulatorios y Hospital Escuela, atendiendo a 2.000 clientes. Los académicos fueron sujetos de su aprendizaje, vivenciando y reflexionando sobre la realidad social. El programa favoreció integración interinstitucional y indisociabilidad enseñanza-investigación-extensión.*

**DESCRIPTORES:** enseñanza; investigación; relaciones comunidad-institución; programas de pregrado en enfermería; participación comunitaria; familia

## INTERFACE ENSINO, PESQUISA, EXTENSÃO NOS CURSOS DE GRADUAÇÃO DA SAÚDE NA UNIVERSIDADE FEDERAL DO TRIÂNGULO MINEIRO

*Este artigo objetivou descrever e avaliar o programa de extensão "Integrando saberes para a atenção integral à família" composto por cinco projetos que visaram ampliar conhecimentos e desenvolver habilidades no campo acadêmico, para a realização de ações em saúde, baseadas nas necessidades da família e comunidade. Participaram 33 acadêmicos dos cursos de enfermagem, medicina e biomedicina da Universidade Federal do Triângulo Mineiro, por oito meses nos Programa Saúde da Família, ambulatorios e Hospital Escola, atendendo 2.000 clientes. Os acadêmicos foram sujeitos de seu aprendizado, vivenciando e refletindo sobre a realidade social. O programa favoreceu integração interinstitucional e indissociabilidade entre ensino-pesquisa-extensão.*

**DESCRITORES:** ensino; pesquisa; relações comunidade-instituição; programas de graduação em enfermagem; participação comunitária, família

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## INTRODUCTION

University extension starts in England, in the second half of the XIX century, where continued education courses are performed with adult population. At American Universities, however, such activities focus on providing services in rural and urban areas<sup>(1)</sup>.

When it comes to Brazil, the first experiences, at São Paulo University (1911), followed the English model. Yet, in the 20s, the Higher School of Agriculture and Veterinary Science of Viçosa and the Agricultural School of Lavras implement the American model<sup>(1)</sup>.

It is in 1931, through Decree # 19,851, that university extension is first legally registered. The idea was that the knowledge produced in Universities was also given to the population that was not part of the academic environment and that it could contribute in social development. However, the courses, conferences and practices performed could not reach their goals and such actions were limited to the freshmen and academics<sup>(1)</sup>.

Thus, until 1961, university extension was developed, especially, for professionals who held a university certificate through courses, conferences and rural technical care. Despite the fact that university extension contributes to education and research, it perpetuated the distance between universities and the population, reinforcing separate actions among education, research and extension<sup>(2)</sup>.

Between 1960 and 1964, there is a proliferation of discussions about political and ideological issues and education in Brazil, lead by the students' movement. In this context, academics start to perform university extension detached from university projects, centered on developing activities to help the population in need<sup>(1-2)</sup>.

In 1964, with the Military Strike and, aiming to keep an eye on the students' movement, the Government proposes, in 1968, a national project: Rondon, providing academic contact with the Brazilian reality. Due to the absence of consistent participation by academic departments and teachers in this project, the learning and teaching process was limited<sup>(1)</sup>.

Despite the obligatory natures of university extension in higher education institutions, through University Reform Basic Law # 5,540 of 1968, the unidirectional relationship from the university, knowledge transmitter, to the community, knowledge receiver, continues as the dislocation among teaching, research and extension<sup>(1-2)</sup>.

In the 80s, discussions about the relationship between university and community start, strengthened by the creation of Extension Provosts for the Forum of Brazilian Public Universities in 1987, which proposed this concept of university extension as "an educational, cultural and scientific process that articulates teaching and research in an inseparable way and enables the transforming relationship between university and society"<sup>(3)</sup>.

At the Federal University of the Triângulo Mineiro (UFTM), university extension is described as "inseparable teaching and research activity, in order to fulfill its educational, cultural, scientific and social role in the community, in an interacting, exchanging and contributing mutual perspective"<sup>(4)</sup>.

By reflecting on these concepts and trying to contribute to an effective (re)organization and implementation of SUS (Brazilian Single Health System) guidelines and the need to prepare professionals capable of responding to the real needs of the population, one may say that the basis of the education process is the tripod education-research-extension. On the other hand, integral care to the family has led to the reconsideration of pedagogical projects, aiming to train health professionals with a new profile.

Integral care to family development has been one of the topics of the social development agenda. Yet, there is a lack of professionals with a profile to develop such activities<sup>(5)</sup>. According to the cited authors, "if the professionals' education, especially the physician and the nurse, is not replaced in the educational apparatus, the care model will not be the everyday reality".

Integral care to the family occupies a privileged space in the education-research-extension tripod, facing the challenge not of the individual need, but of the family unit within a community context<sup>(6)</sup>.

On the one hand, the market needs professionals with a new profile - closer to basic health actions and, on the other hand, the Health Ministry invests in permanent education of the professionals working in the Family Health Program (FHP). Nevertheless, there is a challenge for education institutions, in other words, to discuss and change their curricula to respond to this need.

In this sense, as a health professional education institution, UFTM is concerned with inserting nursing undergraduates within health services so that they can experience practical situations that demand

reasoning and critical judgments, knowledge and decision making abilities, flexible behavior, interpersonal and intergroup relationships, as well as the capacity to work in groups.

Bearing this in mind, teachers from the Undergraduate Nursing Center at UFTM elaborated an Extension Program with five projects. This article aims to describe and assess the program called integrating knowledge with integral family care.

It is important to say that this report experience was approved by the Ethics Committee for Research Involving Human Beings at UFTM, protocol # 777.

## **BUILDING THE PROGRAM INTEGRATING KNOWLEDGE WITH INTEGRAL FAMILY CARE**

During outpatient care and internships at the UFTM Teaching Hospital (TH), one may say that, despite all efforts made, some gaps remain in terms of family response, especially due to lack of information about what needs to be done at home, to clients who need specific care when leaving the hospital, as well as to family reports about the difficulties to adapt to a new reality. Other problems observed during internships include the clients' social isolation and the difficulty to accept some health problems.

It is known that illness and hospitalization cases are unknown, traumatizing and threatening episodes, as they put security, integrity, privacy and even human beings' individuality at stake.

Thus, facing the reality involved in being sick and hospitalized poses the challenge of humanization, so that "values and attitudes regarding human life consolidate a new culture of health response"<sup>(7)</sup>.

From this perspective, developing extension acts towards human life maintenance with dignity, during hospitalization, contributes to the performance of integral family care, respecting particularities of the illness and hospitalization process. This was one of the areas of the program, through the *Humanizing hospital care: focus on client and family* project.

When they return to their homes, the entire family dynamics is changed. Integral family care is based on the premise of the family's great potential as an ally in maintaining and restoring its members' health; however, such potential is influenced by experiences lived that influence such actions at home<sup>(6)</sup>.

There are countless challenges to be faced by the family when one of the members returns after being hospitalized. He/she may need specific attention for his/her readaptation and family reorganization.

The situations that demand family preparation to overcome new challenges include ostomy. On the one hand, this procedure solves the person's organic problem but, on the other, it produces new problems resulting from the sudden change in the body's aspect and its elimination habits. The person loses control and needs of using collector devices for the effluents, changing the person's and family's routine.

Considering the affective and social relationship, or the physical aspect, the family environment constitutes one of the most powerful forces that influence the development of self-care capacity, stimulating ostomy patients to adapt to the new living conditions. For this reason, it is relevant to develop an extension project in which the family is prioritized during the whole self-care capacity process. This is the action sphere of the project *Interdisciplinary care to the ostomized client and his/her family*.

In this context, cancer problems are also relevant. Due to the great incidence and the high mortality of this disease, it is considered a public health problem. Therefore, it should receive care and be addressed in all dimensions: health promotion, prevention, treatment compatible with integral care. This justified the development and discussion of the project *Integral care to gynecological tumor patients and their family*, especially with the women.

The clients, who have ulcer wounds, as well as their family, need integral care in order to clarify not only the injury treatment, but also the development of attitudes aimed at preventing new harm.

Patients with surgical or traumatic ulcer wounds generally present a longer hospitalization time and, consequently, the appearance of hospital infections, increasing treatment costs and also producing physical disabilities and psychosocial problems.

The treatment of cutaneous injuries requires specific knowledge about healing, factors interfering in this process and the use of adequate means and bandages. Nevertheless, extension activities that prioritize integral care, considering the real needs of patients with wounds and their families, may optimize the healing process, decreasing time and treatment costs, which is the study object of *Integral care to patients with chronic and acute wounds and their family*.

Integral care to the family should be guided by the interdisciplinary approach and directed at autonomy, independence and self-care achievement by clients and family members. Having the family as a care perspective means to consider that the family environment is the place where one learns about health and sickness, based on a process of living life, where the changes that occur are built each day<sup>(6)</sup>. This idea guided the work done by the project: Service-Education Articulation: integral care to the family.

To accomplish this program, initially, an institutional moment occurred, with internal discussion among the faculty involved. One of the topics discussed was the option for the methodology seen as "the conception of methods and techniques to be used with a philosophical basis"<sup>(8)</sup>. It is also a concrete way to trace the program, defining its objectives and adequacy from the middle to the end.

Among the challenges that deserved some attention from the faculty, undergraduate insertion in the development of this university extension program stood out because this would terminate the idea of a direct relationship between extension and care, which is a simple transference of knowledge from one who knows to one who does not know<sup>(9)</sup>.

The understanding of university extension can be different among many social actors (faculty, principals and family), which may cause little impact in the life of the population<sup>(10)</sup>. Thus, some guidelines were defined for the development of this extension program, such as active participation and co-responsibility among faculty, academics, health professionals and family involved and living the social reality, aiming at the reconstruction of individual and collective knowledge as well as its transformation.

From this point of view, the program objectives were traced. For the social field: develop educational activities for health promotion; attend clients and families, integrally helping them to understand and facilitating their adaptation to the changes resulted from health problems; stimulating clients' active participation in their self-care process, favoring the maintenance of autonomy and independence; minimize the stress and impact hospitalization causes in the client and family; facilitate client and family adaptation to the hospital environment; achieve articulation among institutions with a view to an integral family response, identify the social and health organizations' power present in the clients' area of residence, which can contribute

with the improvement of their quality of life and expand health care for the population.

The objectives in the academic field were: identify the client, family and main health problems and area he/she is working in; develop abilities for performing health actions, based on needs identified and built with families and communities; experience interdisciplinary group work, share and deepen knowledge with client, family, workers and teachers, among other partners and socialize extension products based on the development of research in scientific events and field journals.

With these objectives, the articulation among institutions and managers, health professionals and other institutions in the cities that constitute the Regional Health Management (RHM) was established, aiming to strengthen the partnerships.

This program was approved and financed by the Ministry of Education, in response to call PROEXT/MEC/SeSu, in 2004.

## **IMPLEMENTING THE PROGRAM: INTEGRATING KNOWLEDGE FOR INTEGRAL HEALTH CARE**

At first, students were selected from all graduation courses at UFTM (biomedicine, nursing and medicine), prioritizing senior students, thus favoring more autonomous action, as well as the interface with the supervised trainee and the interneer, allowing for compliance with the curriculum.

This selection was made through a group dynamics, where the academics' performance was observed according to the following criteria: leadership behavior, team work, cooperation with colleagues, relationship, initiative, creativity, planning capacity, knowledge on health and integral family care, interest in social mobilization and in this program. An individual activity was also done, where the academics received a case and made intervention proposals.

Thirty-three students were selected from the biomedicine, nursing and medicine courses, who participated in the Program for eight months, inserted in the following Programs: Family Health, outpatient clinic and Teaching Hospital. Before the beginning of the extension activity, there was a moment of reflection and deepening on the themes: Family Health, team work, interpersonal relationship, ethics and citizenship, aggregating 12 hours of activity.

Throughout the Program, each academic fulfilled a total of 10 hours a week, receiving a monthly extension incentive scholarship. In this period, around 2,000 clients and families were seen through these activities: reality observation, families' integral care needs and priority setting; reception, home visits; health education, participation in different courses; meetings (administrative; team, community and family); health promotion, specific for each profession (nurse and medical visits, performing laboratory exams) and report elaboration.

The academics elaborated reports of the activities performed monthly, as well as the main challenges faced and how they faced them.

Periodical meetings were held among the academics of each project and their respective coordinator, and among all students and coordinators for experience sharing, when the necessary adjustments were made.

During vacation, the academics from the project: Articulation service-education: integral care to the family, developed part of their activities in cities under GRS jurisdiction.

At the end of the program, students elaborated a report on their experiences, following specific rules. These reports were presented during the II Journey of University Extension of UFTM, with further dissemination in annals. The students were stimulated to present their reports in other scientific events and to publish university extension products in specialized journals.

## ASSESSING THE PROGRAM: INTEGRATING KNOWLEDGE FOR INTEGRAL CARE TO THE FAMILY

The assessment was performed in two ways: formative and summative. In the first, the academics were followed by the professors and/or health service professionals. The students recorded the activities, distinguishing: denomination and quantification of activities, difficulties found and ways to solve them; received orientation; acquired and/or deepened knowledge. Regarding the summative assessment, done by the professional or teacher who followed the student, the performance was assessed by: performance and interest in the proposed activities, technical and scientific ability when executing the tasks; organization; initiative, interest, cooperation and creativity; ethical and

professional posture; relationship (work/client/family/community/colleagues team), assiduity and punctuality.

The degree of satisfaction among clients and family involved in the program was also checked, as well as their criticism and suggestions.

In the opinion of clients and families, regarding the bursar performance, 100% referred that their expectations on health care were attended. The opportunity to clarify the doubts whenever needed was referred by 67.8% and 32.2% did it most of the times. It was seen that security in all care delivered represented 86%, while most of the times for 14%. The extension actions collaborated in 92.2% for health recovery and in 7.1% for health promotion.

From the academic perspective, the main challenges when developing the program were: transportation to the place, client not present at home and the interpersonal relationship. The ways they faced these were: scheduling home visits, previous preparation and team activity discussion. They also said that a higher availability of material resources could contribute to a better effectiveness of health actions.

The main orientations received were related to contents of asepsis/antisepsis, family relationship and physiopathology of some diseases.

Regarding the main acquired knowledge, they distinguished the client and family approach; greater knowledge about diseases, interdisciplinary work and Family Health Program organization and functioning.

The activity was considered satisfactory by 83.3% of the students, 10% did not opine and 6.6% did not get satisfactory results. In Table 1, the academic assessment is shown.

Table 1 - Academic performance assessment by the health professional and/or coordinator. Uberaba/MG, 2005

Aspects	Very Good (%)	Good (%)
Performing proposed activities	100	0
Fulfilling the non programmed activity requirements	60	40
Interest in doing the work	100	0
Technical and scientific abilities when executing activities	60	40
Work organization	66.7	33.3
Initiative, interest, cooperation and creativity	93.3	6.7
Ethics and professional posture	86.6	13.4
Relationship: work/community/colleagues team	93.3	6.7
Assiduity and punctuality	86.6	13.4
Utilization	80	20

Table 1 distinguishes that most of the academics received excellent assessments, showing the interest and interaction of academics, health professionals and coordinators.

## CONSIDERATIONS

Discerning the possibility of building new extension-education alternatives produces the need to break with what is happening traditionally, and also the commitment to assume other responsibilities and challenges. In this perspective, a new way of seeing and performing extension demands is suggested, among other propositions, new patterns of relationship among professionals, academics and community.

Through this description, one may infer that the students' experience in everyday practice with health teams offered immeasurable contributions for professional and academic development, through the opportunity of realizing activities in the community, getting closer to their social and cultural context; to the interaction with professionals inserted in services; to the development of interpersonal and intergroup abilities, to the practical application of theoretical knowledge and recognition of the wealth of this

extension program for information exchange and development of education and health promotion activities.

We emphasize the undeniable importance of the participation and contribution by nurses and other professionals from the health team, because, through this partnership, the goals proposed in the project could be reached. The follow-up and support offered to the academics during the development and the extension activity facilitated their insertion in the action fields and in the sharing of experiences, thus producing an exchange of knowledge and abilities between academics and professionals inserted in the service.

Facing this reality, it is of extreme importance to maintain students in the community and health services, so that the started program can continue making the experience and learning of other groups available, and also privilege the population with the participation of students who certainly have a lot to offer to improve the quality of life of this population.

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