The impact on training of the dynamic model for assessment and family intervention

Summary

INTRODUCTION. The Dynamic Model for Assessment and Family Intervention (MDAIF), as an operative theoretical referential underlying the assessment and family intervention practices, was adopted for the family nursing specialty, in Portugal.

OBJECTIVE. To assess the impact of the professional practice of MDAIF on the assessment and family intervention practices of Primary Healthcare Nurses.

METHODS. A study descriptive case. Forty-nine nurses were invited to participate in the pre-training moment and forty-three in the post-training. Participants were asked to sign a written informed consent and were delivered an open-question form applied in the two moments. The data retrieved were submitted to content analysis with a posteriori categorization.

RESULTS AND DISCUSSION. In the pre-training moment, the most common family assessment practices were: “Areas of attention MDAIF”; “Evaluative data of the MDAIF”; “Attention Individual areas”; and for the most common family intervention practices” “action”; “client”; “health programmes”; “prevention levels”. After the training: “MDAIF dimensions”; and “individual areas of attention” with occasional incidence. In the family intervention, the categories identified were: “MDAIF areas of attention” and “action”.

It is well known that knowledge transfer into practice in family health nursing is a challenge and that only a relatively small percentage of the training is effectively applied, however, in this study it is possible to observe that training had a positive impact in practice changes. The actions focused on care provided to each member of the family changed to care targeted at the family as a client.

CONCLUSION. Training has enabled knowledge transfer to professional performance.

KEYWORDS: FAMILY HEALTH; NURSING ASSESSMENT; NURSING MODEL; NURSING; PRIMARY HEALTH CARE.

Introduction

Over the past decades, the family structure and organization have gone through significant changes. Nonetheless, the family remains the emotional and affective center core and a privileged space of health promotion1. Most importantly, in this case, the health practices of each family element determine the family health status, and similarly, this will determine the health status and well-being of each family member. The family is a specific focus area for nurses’ interventions, directed at the family’s life projects, in a systemic approach in which the family is conceived as a continuous transformational unit, namely in what concerns the dynamic process of the adaptation to experienced transitions2.

On the one hand, the knowledge on family health nursing has been widely disseminated at national and international levels, with special highlight to the University of Calgary, and the effective transition to clinical contexts. Notwithstanding, literature seems to show little information on the formative processes in this specific nursing area, with insufficient research developed on educational practices, as well as on the learning processes related to family health nursing3. Similarly, it was not possible to reach full consensus on content that should be included in curricula, or show evidence of the efficacy of the educators’ efforts in this area, and the only relevant data in literature seems to simply describe new educational program-
mes and innovative strategies. However, there is general agreement about the importance of including the theoretical referential in curricula as an important mechanism for competencies development. On the other hand, the continuous education in family health nursing increases the theoretical knowledge and empowers the nurses to work with families, although there are few empirical studies addressing its benefits, as well as little research on the transition programmes to specialized nursing areas.

Some researchers have explored the minimum knowledge required for the teaching of family nursing. These authors state that in 1997, Bell enumerated the what, when and where, related to the teaching of family health nursing theory and key competencies. Hence, there has been an evolution, since educators have been working on curricula focussed on the family, changing the focus on the individual.

Similarly, Friedemann, Bowden and Jones described four levels of the nursing practice targeted at the family: at level I the family is considered as a context of individual development; at level II, the family is viewed as the sum of both parties; at level III, the focus is placed on the family subsystem as a client; and at level IV, the family is considered as a client itself. This latter level refers to the systemic approach, in which the family is conceived as a primary unit for assessment and intervention, regarded as a system in continuous interaction with the supra and intra systems, the goal being the change of processes or the system’s structure.

In view of the aforementioned, it is understandable that progressive levels of knowledge and competencies to act in specific contexts are found associated with the increasing levels of complexity of the care practices. The purpose of this study was thus to respond to the needs of Portuguese nurses in Primary Health Care (PHC), for the development of practices targeted at families as the focus of nursing care and in 2009 researchers were able to build the Dynamic Model for Assessment and Family Intervention (MDAIF).

This model is based on the systemic thinking, with theoretical referential in the Calgary Family Assessment Model and in the Calgary Family Intervention Model. It sets concepts, assumptions and premises as well as an operative matrix enabling the interconnection of the nursing process phases, in a systematic way, based on the three main dimensions: structural; developmental; and functional, translated into eleven areas of attention used as evaluative categories.

The structural assessment focuses on the family structure, aiming to identify its composition, the existing ties between the family and other subsystems, as the extended family and the broader systems and also specific environmental context stressors that may induce health risks. It integrates five areas of attention: Family Income; Residential Building; Security Precautions; Water Supply; and Household Pets.

The development assessment enables the understanding of the phenomena associated with the family growing, and therefore anticipate the provision of care, aiming to empower the family through the development of tasks essential to each stage and preparing all its elements for future transitions. It includes the following areas of attention: Marital Satisfaction; Family Planning; Adaptation to Pregnancy; and Parental Role.

On the other hand, the functional assessment is mainly focused on family interaction patterns, enabling the accomplishment of the household tasks, and includes two areas of attention: the Caregiver role emphasizing the instrumental dimension of the family functioning; and Family process, with an emphasis on the expression dimension, namely the interactions between the family members.

This framework allows to accurately identify the family care needs, as well as enables nurses to suggest responsive interventions. Hence, the family assessment highlights strengths and the family potential and family intervention aims to the empowerment of the family in problem-solving and preparing the necessary changes in one or several domains of the family functioning: cognitive, emotional, and behavioural, through a systematic and a collaborative approach.

In the operative structure, the International Classification for Nursing Practice (ICNP) is used, with the definition of the minimum data set integrating nursing diagnosis, interventions and outcomes supported by the model’s definitions and in the operational connections that constitute its sorting matrix. The indicators on structure, process and outcomes, according to the MDAIF operative definitions, allow identifying health gains for families in their functioning dimensions, sensitive to nursing care.

It is interesting to note that currently and in what concerns the most recent legal framework of the Primary Health Care, the Portuguese Order of Nurses, through its regulation on the Specific Competencies of the Family Health Nurse Specialist highlights the family as the core of care, in such way that the MDAIF was adopted as a theoretical referential for the development of this specialty, supporting a more advanced nursing practice towards families.

In this way and as part of the multidisciplinary team, the nurse specialist in family health cares for the family as a unit of care, empowering it with the necessary skills to respond to the demands and particularities of its development. This process takes place within the three levels of prevention, focusing either on the family as a whole, or on its members individually, providing specific care during the different stages of the family life cycle. The provision of care takes into account the family’s internal dynamics and the established relations, the family structure and its
functioning, as well as the relationship between all the subsystems with the family as a whole and the surrounding environment, capable of introducing changes in the interfamly processes and in the interaction of family with its own environment. During this dynamic process, the family nurse provides nursing care in sickness and in health, with particular emphasis on the family responses to real or potential health issues. This intervention is based on a dialectic of partnership with other health professionals and on the identification of nursing diagnosis, prescription and implementation of interventions centered on human responses to health problems and life processes, hence focusing on the family functional empowerment to deal with the transition experiences.

However, the implementation of the MDAIF requires a formative framework adapted to nurses’ needs. Hence, and within the scope of the Research Unit of the Nursing School of Porto project, Dynamic Model for Assessment and Family Intervention: A transformative action in Primary Health Care, integrated in CINTESIS (Center for Health Technology and Services Research), training is being developed at a national level, supported on MDAIF, and performed within the professional contexts of the Primary Health Care family nurses, which requires continuous monitoring using different methodologies and instruments, namely in what concerns scientific research.

As part of CINTESIS, this project involves different national and international partner institutions and aims at the maximization of MDAIF in support to nurses’ decision-making.

Interesting to note is that the MDAIF has been included in the curricular units of the undergraduate degree in Nursing and in post-graduate courses in the scope of community nursing and family health nursing, in different nursing education institutions, and has also been used as referential in clinical trials and in the initial and post-graduate training.

Problem statement
On the one hand, literature shows the need for knowledge transfer to family health nursing practice, in which new knowledge is applied to practice, in order to develop new interventions, policies or procedures, thus increasing nurses’ competencies to assess and intervene towards the family. Importantly, nurses are also able to understand this knowledge transfer, as well as the way this formative process influences their clinical practice.

On the other hand, the legal framework of the Primary Health Care, more specifically, after the regulation of the Specific Competencies of the Nurse Specialist in Family Health Nursing, the approval of the formative programme and quality patterns for the profession of specialist nurses, the adoption of the Dynamic Model of Family Assessment and Intervention (MDAIF), as a theoretical-operative referential to the specialty, as well as the statutory requirement for all nurses working in the Family Health Units to have the title of specialist in family health nursing, all contribute to the importance of developing training in this area fostering the development of competencies.

According to the aforementioned, and taking into consideration that the training in a professional context is a short-term systematic training aimed at empowering trainees with competencies that can be easily applied to a specific activity and that this training must be designed to prepare the transfer of the acquired knowledge, as members of the research team, we have developed a study within the doctoral degree in Nursing Science and included in the first stage of the research project. The aim was to assess the impact of the training developed by the MDAIF in the Primary Health Care nurses in the assessment and family intervention, considering that there can be behavioural change as a result of the implemented care practices.

Research questions
The main issue underlying this study can be formulated through the following starting question: What is the impact of the MDAIF in the assessment and family intervention practices of Primary Health Care nurses?

Purpose of the study
The purpose of the study is to contribute to enhancing the quality of care provided by Primary Health Care nurses, through the information on the impact of professional training of MDAIF for the clinical nurses’ performance at the assessment and family intervention levels. This will enable to optimize training and maximize the potential of intervention competencies development and consequently the increase in health gains and empowerment of families.

Methods
A qualitative, exploratory and descriptive study was performed on the phenomenon under study. Forty-nine Primary Health Care nurses were recruited before initiating the professional training and forty-three after three months of professional training. This is corroborated by several authors that state that the effective behavioural assessment in the professional context can be performed three to six months after training, through the most common techniques: questionnaires; interview guides, behavioural observational grids or the combination of all techniques.

In this way, all the ethical issues were assured through the partnership charter signed between the Nursing School of Porto, the headquarters of the research project in which this study is included, and the Northern Regional Health Administration. Participants were asked to sign an informed consent and an open question form delivered in the
two moments, as previously described. The data collected were submitted for content analysis with a posteriori categorization.

Findings
After the analysis of information, it seemed clear that these data could be categorized according to the operational matrix of the MDAIF, and this was the researchers’ decision.

Most common practices of family assessment
At the pre-training moment, the following categories emerged:
- “Areas of attention of the MDAIF”, with emphasis on “Family process” in the operative dimensions “communication”, “dynamic relationship” and “role interaction”, as the example of the following data registration: “The interpersonal relationships, the responsibility and the role played by each individual in the family, followed by the “Residential building”, in what concerns its security, and also the household hygiene (neglected/not neglected): “House physical conditions (water, lighting...)”, “Household hygiene”, among other areas of attention, such as “Marital satisfaction”.
- Evaluate data of the MDAIF, with emphasis on “Family composition – e.g. “Household composition”, followed by “Broader systems” – e.g. “Existing physical and social resources”, and then with two registration units each: “Vital cycle” – e.g. “The family’s vital cycle phase”, “Type of family”, “Family beliefs” and “Social status” – e.g. “Socioeconomic conditions”.
- “Individual areas of attention”, including “Evaluative data of the individual”, such as the following registration units: “Integration of each individual in the social life”, “Personal background”, “Physical, social and psychologic well-being”, including “Therapeutic regimen” and “Human development” – e.g. “Ageing development”.

In the post-training, the following categories emerged:
- “MDAIF dimensions”, including almost all registration units and in which nurses reported the three dimensions: structural, developmental and functional, or included in each one of them the “areas of attention of the MDAIF”, such as the registration unit: “The areas of attention are divided into three areas: structural (family income, residential building, safety precautions, water supply, household pets); developmental (marital satisfaction, family planning, adaptation to pregnancy, parental role) and functional (caregiver role and family process).

Individual areas of attention”, in which there was only two registration units – e.g. “The needs of each family member” and “Health status of each family member”.

Most common practices of family intervention
In the pre-training moment, the following categories emerged:
- “Action” such as “Informing”, “Teaching”, “Assessing” – e.g. “To assess the childhood development”, “To perform” – e.g. “Treating and giving injections”.
- “Client” – e.g. “Elderly”, “Child”, “Pregnant”, “Family members”.
- “National Health Plan Programmes”, such as “Child Health”, “Maternal Health” – e.g. “Pregnancy Monitoring”, “The Elderly Health” – e.g. “The Diabetic and Hypertensive Consultation”, “The Elderly Health” – e.g. “Healthy Ageing”, “National Vaccination Plan” – e.g. “Vaccines”;
- “Prevention levels”, in Primary Prevention – e.g. “Education for Health, Health Promotion”, Secondary Prevention – e.g. “Curative” and Tertiary Prevention – e.g. “Rehabilitation”.

In the post-training moment, the following categories emerged:
- “Areas of attention of the MDAIF” such as the registration unit: “Interventions related to ineffective family planning, to inadequate adaptation to pregnancy; parental role, caregiver role”.
- “Action” such as “Teaching”, “Assessing”, “Performing” – e.g. “Performing techniques”.

Discussion
Considering that the knowledge transfer in family health nursing to clinical practice presents a challenge, implying a change and the regular application of knowledge, competencies, behaviours or attitudes as learning deriving from the formative process and also considering that only a small percentage of training is actually applied to the workplace, this study suggests that training had a positive impact in changing nursing care practices in what concerned the assessment and family intervention. In such way that a significant number of interventions focused on care to each family member changed to care focused on the family as a client, thus suggesting a theoretical use of the MDAIF, as well as its specific language, but also the use in a more operative dimension, reflected on the care practices reported by nurses after completing training.

Several studies corroborate these findings, mostly developed within the aforementioned research project and included in CINTESIS. The MDAIF is perceived as a positive change factor in the acquisition of assessment and family intervention competencies, reflected on the provision of care.

An effective transfer is only considered when competencies or behaviours are generalized in professional contexts and preserved for a period after training. Hence, this suggests a change in the care approach, in which initially the family is considered the context of care and after the training programme, the family is the focus of care, addressing
the reciprocity of family and individual health, meaning that the focus includes the family as a whole and its members individually alike. This new approach implies a clear comprehension of the complexity involved, taking into account the needs as a whole throughout the life cycle and not merely focused on the individual.

However, despite some studies have stressed that nurses value the establishment of a good relationship with the family, considering it as a powerful resource, other studies advocate the replication of practices based on the biomedical model, considering less important the intervention of the family in the process of care, arguing that the family has little or even nothing to say about caring for the ill family member, clearly showing nurses lack trust in the family. In fact, Martins et al. refer to several authors and corroborate this statement, since they mention that although nurses acknowledge the importance of the family, they do not always act accordingly, still revealing some discrepancies in the level of involvement, negotiation and participation of the family in decision-making in relation to care. The findings of the study performed by Martins et al., allowed to show the importance of training contexts (academic and continuous) influencing a more favourable attitude towards the family, strengthening the impact of training in professional practice.

Similarly and in what concerns the evolution of family nursing care in Portugal, it is considered to be in line with the existing legislation on Primary Health Care, highlighting the family nurse’s role in health care. This specific care underlies the entire health system, with special emphasis for the Family Health Unit, as proximity care and a privileged context for nursing practice targeted at the family system as a unit of care. An important contribution is also the implementation, in some organizations, of the organizational model of the family nurse, in which each nurse is responsible for the overall provision of care to a specific number of families. However, Figueiredo stresses that although there is a strong understanding that family should be the focus of care and on the importance of family nurses for the monitoring of families, there is still a philosophy of care focused on health programmes in which the family is involved merely as a context of care.

For the above stated and underlying the guidelines of the Portuguese Order of Nurses (2011), it is essential to train nurses capable of mobilizing and combining the different knowledge and resources, to effectively intervene in the family health context. Thus, training emerges as a promoter of these competencies and the MDAIF is used as a conceptual systemic model setting the action, and therefore, as a guide for decision-making in family health nursing.

On the other hand, despite there is a worldwide consensus on the importance of continuous education, there is still little evidence of its empirical efficacy. This is corroborated by Velada (2007) who states that the analysis of the effective impact of professional training is relatively scarce.

**Conclusion**

Our study concludes that training has practical implications on the care provided and also reveals that training may have enabled the knowledge transfer to professional performance, by transforming knowledge into action, in such way that learning becomes of substantial utility, and materializes itself in the changes of nursing practices targeted at families.

Similarly, there are other implications on the formative process, since there was positive impact of training based on the MDAIF. The impact on research was equally important, and suggests the need for further studies, either of qualitative or quantitative nature, in order to enhance knowledge about the factors positively and/or negatively interfering in the transfer of what is acquired in the training context to action, mainly those being developed within the scope of the research project: Dynamic Model of Family Assessment and Intervention; a transformative action in Primary Health Care.
Bibliography


