

PAIN IN THE NEONATAL UNIT: THE KNOWLEDGE, ATTITUDE AND PRACTICE OF THE NURSING TEAM*

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ABSTRACT: This study aims to evaluate the knowledge, attitude and practice of the nursing team in the management of pain in the newborn, in terms of professional training. It is a transversal study, undertaken in the Neonatal Unit of a specialist hospital in Recife in the Brazilian state of Pernambuco, with 105 professionals, between August and October 2014. Analysis was undertaken using the Stata 12.1 software, Student's t-test was used and $p < 0.05$ was considered. When the knowledge, attitude and practice of the nursing team was compared, there was better performance for attitude, although this was not statistically significant. In knowledge and practice, among those with higher education, the value was significant for those who had received training on pain management. For those educated to high school level only, all of the differences of means were significant ($p < 0.05$). For all the professionals, attitude presented higher means. It is concluded that the professionals who work with the newborn must be continuously empowered and trained, such that theoretical knowledge may be reflected in the professional practice.

DESCRIPTORS: Pain Management; Infant, newborn; Nursing, team; Intensive care units, neonatal.

DOR EM UNIDADE NEONATAL: CONHECIMENTO, ATITUDE E PRÁTICA DA EQUIPE DE ENFERMAGEM

RESUMO: Avaliar conhecimento, atitude e prática da equipe de enfermagem no manejo da dor no recém-nascido, segundo a formação profissional. Estudo transversal, realizado na Unidade Neonatal em hospital de referência em Recife, estado de Pernambuco, com 105 profissionais, entre agosto e outubro de 2014. Análise realizada no Stata 12.1, utilizado teste t-Student e considerado $p < 0,05$. Quando comparado conhecimento, atitude e prática da equipe de enfermagem, houve melhor desempenho para atitude, embora não tenha sido estatisticamente significativa. Em conhecimento e prática, no nível superior, o valor foi significativo para os que receberam treinamento sobre manejo da dor. No nível médio, todas as diferenças de médias foram significantes ($p < 0,05$). Para todos os profissionais, a atitude apresentou maiores médias. Conclui-se que os profissionais que trabalham com o recém-nascido devem ser capacitados e treinados continuamente, para que o conhecimento teórico reflita sobre a prática profissional.

DESCRIPTORES: Manejo da dor; Recém-nascido; Equipe de Enfermagem; Unidades de Terapia Intensiva Neonatal.

DOLOR EN UNIDAD NEONATAL: CONOCIMIENTO, ACTITUD Y PRÁCTICA DEL EQUIPO DE ENFERMERÍA

RESUMEN: Estudio cuya finalidad fue evaluar conocimiento, actitud y práctica del equipo de enfermería en el manejo del dolor del recién nacido, de acuerdo con la formación profesional. Estudio transversal, realizado en Unidad Neonatal en hospital de referencia en Recife, estado de Pernambuco, con 105 profesionales, entre agosto y octubre de 2014. Análisis realizado en el Stata 12.1, utilizando test t-Student y considerando $p < 0,05$. Si comparados conocimiento, actitud y práctica del equipo de enfermería, hubo mejor desempeño para actitud, a pesar de no ser estadísticamente significativa. Acerca de conocimiento y práctica, en nivel superior, el valor fue significativo para los que tuvieron entrenamiento del manejo del dolor. En nivel medio, todas las diferencias de medias fueron significantes ($p < 0,05$). Para todos los profesionales, la actitud presentó medias mayores. Se concluye que los profesionales que trabajan con el recién nacido deben ser habilitados y entrenados continuamente, para que el conocimiento teórico sea reflejo sobre la práctica profesional.

DESCRIPTORES: Manejo del dolor; Recién nacido; Equipo de Enfermería; Unidades de Terapia Intensiva Neonatal.

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● INTRODUCTION

Pain is not only an unpleasant sensation, but is also a sensory modality which is essential for survival, and when untreated, causes suffering to the individuals affected⁽¹⁾. For a long time, health professionals believed that the newborn (NB) did not feel pain, due to being protected by the immaturity of the central nervous system. At the beginning of the 1960s, it was observed that the transmission of impulses by the sensory tract happened even with the incomplete myelination of the nervous system⁽²⁾.

It is known that in the Neonatal Intensive Care Units (NICU) that premature or seriously ill NBs are exposed to multiple painful procedures such as calcaneal puncture and repeated and prolonged venepuncture⁽³⁾. This being the case, scales are used which attempt to analyze behavioral and physiological changes related to their pain⁽⁴⁾.

Subsequent to the assessment of the pain, the nursing team must act therapeutically, using nonpharmacological measures⁽⁵⁾, such as reduction in light levels, reduction of noise, swaddling (wrapping in a blanket), containment (facilitated tucking), non-nutritive sucking, glucose and grouping of the care measures⁽³⁾.

Many factors influence the practice for the management of pain in the NB, such as lack of knowledge, attitude, work overload, and professional and personal experience. The success of the transference of knowledge and practice depends on the quality of the evidence, a context which is receptive to changes⁽⁶⁾.

Pain is considered to be a vital sign and is often underestimated, unassessed and untreated, principally in NBs who are inpatients in a Neonatal Unit (NU), who have specific ways of expressing this. The nursing professionals' lack of knowledge, and attitude, may be the principal reasons for failure to treat the pain. Hence, for a possible transformation of the care, it was important to undertake this study and thus to obtain information which is relevant regarding the management of pain in the NB in the NU.

As a result, the study aimed to evaluate knowledge, attitude and practice of the nursing team in relation to the management of pain in the NB in the NU, according to the professionals' training.

● METHOD

This is an evaluative, cross-sectional study, of the KAP survey (knowledge, attitude and practice) type, with a quantitative approach, undertaken in the NU of a hospital which is a center of excellence in mother and child health, in Recife, in the Brazilian state of Pernambuco.

The sample study was non-probabilistic, by convenience, and made up of 105 nursing professionals (15 nurses and 90 nurse technicians). The population was 132 professionals (115 nurse technicians and 17 nurses), 15 professionals being excluded; there were seven refusals and five losses. The inclusion criteria was: nurses and nurse technicians allocated to the NU in the data collection period and who accepted to participate in the study. The exclusion criteria were: nurses and nurse technicians on sick leave, holiday or suspended from work; those covering holidays, and service providers; and the nurse who was the author of the study.

Data collection was undertaken in August to October 2014, through the personal contact of the researcher with the nursing team at the beginning of each shift, questionnaires being distributed to the professionals who agreed to participate in the study, through signing the Terms of Free and Informed Consent. The questionnaire was completed in the workplace, it being forbidden to consult sources of information, with the researcher waiting for the questionnaire to be completed by the study participant.

The questionnaire addressed questions which consider professional characteristics and the KAP survey, which assessed three spheres: Knowledge (ability to acquire and retain information to be used, a mixture of comprehension, experience, discernment and skill), attitude (inclination to react in a certain way to certain situations; to see and interpret events in accordance with certain predispositions;

to organize opinions within an interrelated and coherent structure) and practice (the application of rules and knowledge which lead to the undertaking of the action and an ethical manner). This inquiry was made up of three stages, in accordance with the methodology of a similar study⁽⁷⁾:

First stage: construction of the initial questionnaire. This was elaborated based on studies which analyzed knowledge of the nursing team in relation to the evaluation of, and nonpharmacological and pharmacological therapies for, pain relief in the NB in NICU^(6,8-9).

Second stage: evaluation of the appearance and content of the questionnaire, undertaken by three nurses with more than 10 years of experience in the area of Intensive Care, from three institutions of Higher Education in Nursing, in the city of Recife. The questions were scored according to the degree of importance for constructing the questionnaire (0 = Unnecessary, 1 = Acceptable, 2 = Good, 3 = Great), such that those which obtained a score of a minimum of two, after two evaluations of the instrument, would remain.

Third stage: prior testing of the instrument, with 20 nursing professionals who did not participate in the study, in order to evaluate the questionnaire in relation to objectivity, clarity of the questions, and the time taken for completing the questionnaire. The questions of the questionnaire had values ranging from 0 to 3 (0 = Unnecessary, 1 = Acceptable, 2 = Good, 3 = Great), with those which obtained a score of at least two in all of the evaluations remaining.

For the questions regarding Knowledge and Practice, dichotomous responses were attributed ("yes"/"no"). For Attitude, a Likert scale of five levels was used ("I agree"/"I fully agree"/"I disagree"/"I fully disagree"/"I don't have an opinion on this").

For analysis of the data, it was considered that for Knowledge: the question was adequate when the response was "yes" for the true statements, or "no", for the false ones; and that a question was inadequate when the response was "no" for true statements, or "yes" for false ones.

In relation to Attitude: the question was considered to be adequate when the response was "I agree"/"I fully agree" for true statements or "I disagree"/"I fully disagree" for the false ones; the question was inadequate when the response was "I disagree"/"I fully disagree"/"I have no opinion on this" for the true statements, or "I agree"/"I fully agree"/"I have no opinion on this" for the false ones.

In relation to Practice: the question was considered adequate when the response was "yes" and the question was inadequate when the response was "no". The responses were considered adequate or not adequate according to the literature on pain management in NBs hospitalized in NU.

For each section, a score was calculated on a scale from 0 to 10, the maximum score being considered 10, when all the questions presented correct responses. For Knowledge, the value of 0.9 was attributed to each question: for Attitude, each affirmative answer obtained a value of 1.6; and for Practice, the value of 2.0 was attributed to each question. Hence, the higher the score, the greater the knowledge, attitude and practice of the nursing professionals.

Data was entered via doublekeying on the Excel program, and was validated using the EpiInfo 3.4.3 software; the data was analyzed using Stata 12.1. Student's t-test was undertaken in order to compare the means of correct answers, considering a level of significance of $p < 0.05$. The data were analyzed and presented, considering two groups of professionals: higher education (nurses) and senior school (nurse technicians).

The project was approved by the Research Ethics Committee of the IMIP, under protocol number 4154-14, in line with Resolution N. 466/12⁽¹⁰⁾ of the Brazilian Ministry of Health.

● RESULTS

A total of 105 nursing professionals participated in the study, this being 14.3% (15) nurses and 85.7% (90) nurse technicians. The nurses had a mean age of 34.1 years old (SD = 7.3), seven (50%) had qualified more than five years previously, and eight (53.4%) had worked in the NU for over five years. Approximately nine (60%) mentioned a postgraduate qualification in Health of the Child/Neonatology

and six (40%) mentioned training on pain management in the NB.

It was observed that 98.1% (89) of the nurse technicians were female, with a mean age of 35.3 years old (SD = 9.8), 49.4% (37) had finished their professional training more than five years previously, and 38.4% (33) had worked in the NU for more than five years. Approximately 60% (51) mentioned a technical specialization course and 65.6% (59) mentioned training on pain management in the NB.

In relation to nonpharmacological measures for pain management, those cited most among the nurses were glucose 25% and non-nutritive suction; among the nurse technicians, these were glucose 25% and containment of the NB with a sheet.

In Table 4, no statistical difference was observed between the means of knowledge, attitude and practice and the characteristics of the training of nursing professionals. In Table 4, no statistical difference was observed between the means of knowledge, attitude and practice and the characteristics of the training of nursing professionals.

Table 5 shows that among the professionals with higher education, the difference between the means was statistically significant only for those who had received training regarding pain management. In relation to the professionals educated to senior school level, for all the variables, the differences in the means were shown to be statistically significant.

Table 1 – Distribution of the adequate answers regarding knowledge in pain management in the NB, from the Nursing team, in a Specialist Hospital. Recife, Pernambuco (PE), Brazil, 2014

| Aspects | Higher Education | | Senior school education | |
|---|------------------|------|-------------------------|------|
| | Adequate answers | | Adequate answers | |
| | n=15 | % | n=90 | % |
| NB feels pain | 15 | 100 | 90 | 100 |
| Longer time in NICU makes the NB more tolerant to pain | 8 | 53.3 | 61 | 67.8 |
| Absence of crying indicates that the NB is not feeling pain | 13 | 86.7 | 83 | 92.2 |
| It is important to treat pain in the NB | 14 | 93.3 | 86 | 95.5 |
| Treating the pain improves the prognosis | 13 | 86.7 | 63 | 70 |
| Treating the pain reduces the suffering | 14 | 93.3 | 80 | 88.9 |
| Treating the pain reduces the stress | 14 | 93.3 | 75 | 83.3 |
| Knows some nonpharmacological measure | 13 | 86.7 | 50 | 55.6 |
| Knows some pharmacological measure | 12 | 80 | 55 | 61.1 |
| The pain relief measure must be recorded in the medical records | 15 | 100 | 88 | 97.8 |

Table 2 - Distribution of adequate answers regarding attitude in relation to pain management in the NB, of the nursing team of the NU in a Specialist Hospital. Recife, PE, Brazil, 2014

| Aspects | Higher Education | | Senior school level | |
|--|------------------|------|---------------------|------|
| | Adequate answers | | Adequate answers | |
| | n=15 | % | n=90 | % |
| Pain management must be undertaken only by the Nurse | 15 | 100 | 87 | 96.7 |
| Pain management may be undertaken by any Nursing professional | 15 | 100 | 85 | 94.4 |
| All NBs must receive measures for pain relief | 14 | 93.3 | 79 | 87.8 |
| When undertaking painful procedures, I must promote pain relief | 15 | 100 | 88 | 97.8 |
| Pain management must be undertaken prior to the painful procedure | 15 | 100 | 81 | 90 |
| I must know if there is medication for pain relief in the medical prescription | 13 | 86.7 | 89 | 98.9 |

Table 3 - Distribution of adequate answers regarding practice in pain management in the NB, from the Nursing team of the NU, in a Specialist Hospital. Recife, PE, Brazil, 2014

| Aspects | Higher Education | | Senior School level | |
|---|------------------|------|---------------------|------|
| | Adequate answers | | Adequate answers | |
| | n=15 | % | n=90 | % |
| Evaluates the pain in the NB in accordance with the NU's protocol | 11 | 73.3 | 73 | 81.1 |
| Undertook measures for pain relief in the NB | 15 | 100 | 87 | 96.7 |
| Prior to undertaking a painful procedure, promotes pain relief | 15 | 100 | 87 | 96.7 |
| Records the measure used in the medical records or in the nursing care plan | 6 | 40 | 74 | 82.2 |
| Uses the pharmacological measures only under medical prescription | 15 | 100 | 88 | 97.8 |

Table 4 – Distribution of the means of knowledge, attitude and practice regarding pain management in the NB in accordance with the characteristics of the training of nursing professionals of the NU, in a Specialist Hospital. Recife, PE, Brazil, 2014

| Characteristics | Knowledge | | | Attitude | | | Practice | | |
|------------------------------------|-----------|-------|-------|----------|-------|-------|----------|-------|-------|
| | Mean | (SD) | p* | Mean | (SD) | p* | Mean | (SD) | p* |
| Senior School level | | | | | | | | | |
| Time since qualification | | | | | | | | | |
| ≤ 5 years | 7.9 | (0.9) | 0.405 | 10 | 0 | 0.972 | 7.7 | (0.8) | 0.115 |
| >5 years | 8.1 | (0.3) | | 9.3 | (0.3) | | 8.8 | (0.4) | |
| Postgraduate qualification | | | | | | | | | |
| Yes | 7.7 | (0.7) | 0.275 | 9.8 | (0.2) | 0.836 | 8 | (0.6) | 0.234 |
| No | 8.2 | (0.3) | | 9.4 | (0.3) | | 8.6 | (0.4) | |
| Training regarding pain management | | | | | | | | | |
| Yes | 7.6 | (0.2) | 0.283 | 9.4 | (0.3) | 0.163 | 9 | (0.4) | 0.913 |
| No | 8.1 | (0.7) | | 9.8 | (0.2) | | 7.7 | (0.6) | |
| Time worked in NICU | | | | | | | | | |
| ≤ 5 years | 7.9 | (0.9) | 0.449 | 10 | 0 | 0.960 | 7.7 | (0.8) | 0.121 |
| >5 years | 8 | (0.3) | | 9.3 | (0.3) | | 8.8 | (0.3) | |
| Senior School level | | | | | | | | | |
| Time since qualification | | | | | | | | | |
| ≤ 5 years | 7.5 | (0.2) | 0.801 | 9.5 | (0.2) | 0.735 | 9 | (0.3) | 0.360 |
| >5 years | 7.3 | (0.2) | | 9.4 | (0.1) | | 9.1 | (0.2) | |
| Technical specialization | | | | | | | | | |
| Yes | 7.1 | (0.2) | 0.057 | 9.4 | (0.1) | 0.577 | 9.2 | (0.2) | 0.677 |
| No | 7.6 | (0.2) | | 9.4 | (0.2) | | 9 | (0.3) | |
| Training in pain management | | | | | | | | | |
| Yes | 7.6 | (0.1) | 0.981 | 9.3 | (0.1) | 0.098 | 9.2 | (0.2) | 0.888 |
| No | 6.9 | (0.3) | | 9.6 | (0.2) | | 8.8 | (0.3) | |
| Time worked in NICU | | | | | | | | | |
| ≤ 5 years | 7.6 | (0.2) | 0.941 | 9.4 | (0.1) | 0.452 | 9 | (0.2) | 0.200 |
| >5 years | 7.1 | (0.3) | | 9.5 | (0.2) | | 9.3 | (0.2) | |

*Student's t-test

Table 5 - Comparison of the means for knowledge and practice regarding pain management in the NB, by characteristics of training of nursing professionals of the NU in a Specialist Hospital. Recife, PE, Brazil, 2014

| Characteristics | Knowledge | | Practice | | Difference | | p value |
|------------------------------------|-----------|-------|----------|-------|------------|-------|---------|
| | Mean | (SD) | Mean | (SD) | Mean | (SD) | (*) |
| Higher Education | | | | | | | |
| Time since qualification | | | | | | | |
| ≤ 5 years | 7.9 | (0.9) | 7.7 | (0.8) | 0.2 | (1.4) | 0.548 |
| >5 years | 8.1 | (0.3) | 8.8 | (0.4) | 0.7 | (0.6) | 0.154 |
| Postgraduate qualification | | | | | | | |
| Yes | 7.7 | (0.7) | 8 | (0.6) | 0.3 | (1.2) | 0.416 |
| No | 8.2 | (0.3) | 8.6 | (0.4) | 0.4 | (0.6) | 0.292 |
| Training regarding pain management | | | | | | | |
| Yes | 7.6 | (0.2) | 9 | (0.4) | 1.4 | (0.5) | 0.028 |
| No | 8.1 | (0.7) | 7.7 | (0.6) | 0.4 | (1.1) | 0.630 |
| Time worked in NICU | | | | | | | |
| ≤ 5 years | 7.9 | (0.9) | 7.7 | (0.8) | 0.2 | (1.4) | 0.548 |
| >5 years | 8 | (0.3) | 8.8 | (0.3) | 0.8 | (0.5) | 0.117 |
| Senior School level | | | | | | | |
| Time since qualification | | | | | | | |
| ≤ 5 years | 7.5 | (0.2) | 9 | (0.3) | 1.5 | (0.3) | 0.000 |
| >5 years | 7.3 | (0.2) | 9.1 | (0.2) | 1.8 | (0.3) | 0.000 |
| Technical specialization | | | | | | | |
| Yes | 7.1 | (0.2) | 9.2 | (0.2) | 2.1 | (0.2) | 0.000 |
| No | 7.6 | (0.2) | 9 | (0.3) | 1.4 | (0.3) | 0.000 |
| Training in pain management | | | | | | | |
| Yes | 7.6 | (0.1) | 9.2 | (0.2) | 1.6 | (0.2) | 0.000 |
| No | 6.9 | (0.3) | 8.8 | (0.3) | 1.9 | (0.4) | 0.000 |
| Time worked in NICU | | | | | | | |
| ≤ 5 years | 7.6 | (0.2) | 9 | (0.2) | 1.4 | (0.2) | 0.000 |
| >5 years | 7.1 | (0.3) | 9.3 | (0.2) | 2.1 | (0.4) | 0.000 |

*Student's t-test

● DISCUSSION

According to this study's results, it was possible to observe a predominance of the female sex among the categories, related to the issue of this gender in nursing, reproducing its historical characteristic, exercised almost exclusively by women⁽¹¹⁾.

The postgraduate qualification in Health of the Child/Neonatology was prevalent among the nurses, and the majority of the nurse technicians had undertaken a specialization course, which demonstrates the professional's concern with their level of qualification. The nurse's training in neonatology is configured as specialization of known value due to the complexity of the care provided, as the nurse who coordinates the nursing actions must be prepared, as it falls to her to lead the team and to take responsibility for the nursing care⁽¹²⁾.

On the other hand, appropriate frequency was not found in relation to specific training on pain management in the NB for the professionals, although this was more prevalent among the nurse technicians. Continuing education in health is recognized as a relevant strategy, contributing to the continuous qualification of the professionals, so that these may act at an early stage, foreseeing the

possible complications and preventing them⁽¹³⁾. It may be supposed that the institution studied does not provide sufficient support for undertaking this strategy.

In the questions related to the knowledge, emphasis is placed on the 100% of correct answers when the professionals were asked whether the NB feels pain; a similar result was also found in Alfenas, in the Brazilian state of Minas Gerais⁽¹⁴⁾, which may be explained by the ease of accessing information, enabling greater knowledge in relation to this issue.

More than half of the nurses (53.3%) and nurse technicians (67.8%) believe that a longer time spent in NICU and greater exposure to painful procedures do not make the NB more tolerant of pain. The repeated exposure of the premature NB to multiple painful procedures culminates in stress, greater metabolic expenditure and exhaustion of the energy reserves, hindering weight gain and delaying their recovery⁽¹⁵⁾. These professionals may have acquired this knowledge based on their practice and professional experience in caring for the NB exposed to pain.

In spite of crying being one of the main ways that the NB expresses that it is feeling pain, its absence does not indicate that pain is not present. In this regard, the majority of the professionals responded appropriately to this question: nurses (86.7%) and nurse technicians (92.2%). Besides crying, other parameters must also be evaluated: movements of the limbs, squeezed up eyes, wrinkled forehead, and change in cardiac frequency⁽¹⁶⁻¹⁷⁾, among other physiological and behavioral changes.

More than 90% of the nursing professionals believe that it is important to treat pain in the NB; a similar result was found in a study undertaken with 57 health professionals in a hospital in the nonmetropolitan region of São Paulo, in which 98.2% of the professionals considered it to be important to treat the NB's pain, an attitude which is justified by the improvement in the prognosis and reduction of the suffering and stress⁽⁶⁾. This knowledge is reflected in the professionals' practice, and 100% of the nurses and 96.7% of the nurse technicians asserted that they promote pain relief prior to undertaking a painful procedure.

The nonpharmacological measures mentioned most, among the nurses (86.7%) and nurse technicians (55.6%) who mentioned knowing some type of these measures, were glucose 25%, non-nutritive suction and containment of the NB with a sheet. In one study undertaken with 25 nursing professionals in a NICU, which is a center of excellence, in Fortaleza, in the state of Ceará, non-nutritive suction, glucose 25% and wrapping up the NB were the conducts mentioned most for preventing pain in the NB⁽¹⁸⁾.

Although the nurses (100%) and nurse technicians (97.8%) were aware that the measure of pain relief must be recorded in the medical records, this data supports the section on practice, as only 40% of the nurses and 82.2% of the nurse technicians record it in the medical records. In a study undertaken in the NICU of a University Hospital in Cuiabá in the state of Mato Grosso (MT), with 127 medical records of NBs, it was ascertained that the use of nonpharmacological measures was not recorded in any set of medical records⁽¹⁹⁾. The professional must record the care provided in the medical records, which are sources of information and ensure the continuity of the care.

In the attitude section, the professional categories presented more than 85% of correct answers in all the positive statements. It is worth emphasizing that 100% of the nurses and 97.8% of the nurse technicians responded appropriately to the statement "in undertaking painful procedures, I must promote pain relief"; similar data was found in the practice section, in which 100% of the nurses and 96.7% of the nurse technicians asserted that they promote pain relief prior to undertaking a painful procedure.

It may be observed that the professionals are concerned with the care provided to the NB in relation to pain. This fact was also found in a qualitative study undertaken with 10 nurses in the NICU of a public hospital in Fortaleza, evidencing that the interventions undertaken by the nurses for mitigating pain in the NB were predominantly nonpharmacological, undertaken prior to and after the painful procedure⁽²⁰⁾.

In considering the knowledge, attitudes and practice in the light of certain characteristics of the training of the professionals, such as time since qualification and length of work in the NICU, the undertaking of postgraduate courses/technical specialization, and specific training in pain management

in the NB, it was ascertained that there was better performance related to Attitude, followed by Practice and Knowledge for the professional categories.

In another study undertaken using the KAP methodology in relation to phototherapy, in two maternity hospitals in Recife, also considering the characteristic of training of the nursing professionals, better performance was observed related to practice, followed by attitude and knowledge, for the groups of professionals⁽⁷⁾. The importance of training with theoretical emphasis for the nursing team is highlighted, as in both studies, the professionals obtained lower means in relation to knowledge.

In relation to knowledge and practice, the professionals with higher education, who had graduated more than five years previously and who had worked in NICU for more than five years, obtained higher scores. It is possible that these professionals' longer period since qualification and, consequently, their greater practical experience may have influenced better performance. A different result was found among the professionals educated to senior school level, as those who obtained better means were those who had five years or less since qualification and five years or less work in the NICU. In this case, it may be related to the fact that the knowledge and practice learned during the training are more up-to-date for those who concluded the course recently.

It is possible to say that the time since professional qualification is important for analyzing the profile of professionals who work in the Intensive Care Unit (ICU). The nurse may have long experience in another area, but not have mastered the elements necessary for the care of the client in intensive care – being considered, therefore, due to his or her lack of experience in this area, to be a novice in ICU⁽²¹⁾.

The comparison between the means of knowledge and practice of the nurses was statistically significant only for those who had received training in pain management. However, for nurse technicians, all the comparisons of means obtained statistical significance. These findings may be related to the fact that often, the training offered to the professionals addresses the practical issues rather than theoretical knowledge, which may bring the professionals closer to the practice, but distance them from the knowledge.

One study undertaken with 57 health professionals, in a hospital in the nonmetropolitan region of São Paulo, evidenced that the professionals recognize that the NBs feel pain and that it is necessary to treat this. However, there still exists a gap for the appropriate application of the knowledge, as the professionals' lack of knowledge was perceived in relation to the evaluation and treatment of the pain resulting from painful procedures⁽⁶⁾.

● CONCLUSION

The majority of the nurses and nurse technicians presented responses which were more satisfactory in relation to attitude and practice with, consequently, better means. The scientific knowledge and the practice must always be related, although this does not always happen, as may be observed in the study, when nurses who received training on pain management in the NB obtained a better mean in practice, when compared to the knowledge.

The study presented some limitations which must be taken into account. In spite of the criteria adopted for constructing the data collection instrument, it is possible that the format of the questions may have induced certain responses. Although the professionals were aware of the study objectives, it is possible that they may have shown bias in asserting that they undertake certain practices. The evaluation of the attitude and of the practice, based on the information from the professionals, without the direct observation of the same in managing pain in the NB, is one limitation which must also be considered.

In spite of these limitations, the study presented results which may be useful for the organizing of the NU, in relation to management of pain in the NB; these results may lead to the undertaking of further studies with other methodologies. The gaps in knowledge, attitude and practice observed may contribute to identifying points to be developed and emphasized in the continuing education for nursing professionals.

Pain management in the NB must always be considered, principally when the topic is the NICU. The professionals who work with this patient must be empowered and continuously trained, so that the theoretical knowledge may be reflected in the professional practice, allowing appropriate, qualified and humanized care for the NB.

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