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ORIGINAL ARTICLE

Evaluation of pain knowledge of physiotherapy students from a university center*

Análise do conhecimento sobre dor pelos acadêmicos do curso de fisioterapia em centro universitário

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ABSTRACT

BACKGROUND AND OBJECTIVES: Pain, for being largely neglected by most university curricula, is requiring new and urgent educational strategies aiming at improving its management in the daily practice. This study aimed at assessing pain and therapeutic knowledge of physiotherapy students of a university center, explaining best known therapeutic approaches to control pain and determining the evolution of knowledge about pain throughout the course.
METHODS: This is a descriptive transversal study with primary database query, carried out in the University Center of Gurupi (UNIRG), in the city of Gurupi/TO. Sample was made up of 85 physiotherapy students from the 1st to the 10th period. For a better analysis, participants were divided in three categories: Group A (students from the 1st to the 4th period), Group B (5th to 8th period) and Group C (9th to 10th period).
RESULTS: Mean right answers when comparing groups was 46.8% for Group A, 47.0% for Group B and 49.7% for Group C, showing deficiency in the approach of the subject as basic requirement for the physiotherapy course curriculum, although the difference among groups was small.
CONCLUSION: Pain is addressed during graduation not as a major subject but rather as a complementary concept for several disciplines. So, it is suggested that physiotherapy courses curricula should specifically address pain, since decreasing pain is a major physiotherapy objective.
Keywords: Knowledge, Pain, Physiotherapy.

RESUMO

JUSTIFICATIVA E OBJETIVOS: O tema dor, por ser bastante negligenciado na maioria dos currículos, faz com que a adoção de novas estratégias educacionais se torne urgente, visando o aprimoramento do seu tratamento na prática diária. O objetivo deste estudo foi mensurar o conhecimento sobre dor e terapêuticas pelos acadêmicos do curso de fisioterapia em centro universitário, elucidando as abordagens terapêuticas de maior conhecimento para o controle da dor, determinando a evolução do conhecimento sobre o tema no decorrer do curso.
MÉTODOS: Estudo do tipo descritivo e delineamento transversal, com pesquisa de dados em banco primário, realizado no Centro Universitário de Gurupi (UNIRG), na cidade de Gurupi/TO. A amostra foi composta por 85 acadêmicos de fisioterapia do 1º ao 10º período, Para melhor análise, os participantes foram divididos em três categorias, sendo grupo A (acadêmicos do 1º ao 4º período), grupo B (5º ao 8º período) e grupo C (9º e 10º período).
RESULTADOS: A média de acertos comparando os grupos foi de 46,8% grupo A, 47,0% grupo B e 49,7% grupo C, evidenciando deficiência na abordagem do tema como quesito básico na grade curricular do curso de fisioterapia, ainda que a diferença entre grupos tenha sido de pequena proporção.
CONCLUSÃO: O tema dor é abordado na graduação não como tema principal, e sim como conceito complementar em diversas disciplinas. Portanto, sugere-se que a grade curricular do curso de fisioterapia tenha uma abordagem específica em relação à dor, visto que a fisioterapia tem como um dos objetivos principais, a redução do quadro álgico.
Descritores: Conhecimento, Dor, Fisioterapia.

INTRODUCTION

Pain is defined by the International Association for the Study of Pain (IASP) as an uncomfortable sensory and emotional experience associated to real or potential injuries[1].
Pain is characterized as a complex perception influenced by previous experiences and by the context in which the noxious stimulation happens, in isolated or combined way, by the association of negative physical factors and emotional status[2].

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According to IASP, mean chronic pain prevalence worldwide is 35.5%[1]. In Brazil – country with continental dimensions, high population index and few epidemiological studies – similar prevalence is estimated[3].

Because this is a public health problem[4], pain-related studies have been carried out to check its interference with the lives of people, evaluating the number and characteristics of affected patients, more frequent pains and resources used for its management[3].

Pain control, as health professionals' attribution, needs fundamental concepts about its mechanisms and repercussions on physical, emotional and social aspects of people for the choice of the most adequate therapy[5]. Since there is the need to adopt interdisciplinary and multiprofessional models to treat painful patients, further involvement and dedication of professionals of different health areas is needed as from their academic education, as well as of health agencies and institutions, entities and associations that assist and teach pain, emphasizing the need for psychosocial approach to treat painful individuals[6].

Kumar & Saha[7] suggest that physiotherapists should treat pain according to clinical mechanisms identified during evaluation. Along time, physiotherapy has played an important role in the management of painful patients. Treatments use the specific knowledge about the effects of techniques for clinical applicability. It is important to determine the predominant pain mechanism for physiotherapy to be more effective[8,9].

Physiotherapy involves several techniques of local or global physical therapies as well as all specific modalities. The modality of choice will basically depend on stage and dysfunction presented by patients. Its therapeutic modalities address a broad range of musculoskeletal dysfunctions often present in painful patients. Each technique has a neurophysiologic explanation with its own action mechanisms[10].

A successful pain management requires careful evolution of its nature, the understanding of different pain types and patterns and of the best treatment. Thorough initial pain evaluation shall be the basis to determine subsequent interventions[11].

A better physiological, pathophysiological and anatomic knowledge about pain may improve evaluation and, as a consequence, intervention. However, to choose a mechanism-based treatment, physiotherapists need scientific and practical knowledge[9].

The inclusion of pain and palliative care in health graduation courses is needed, considering the prevalence, distress and costs involved. To educate in the interdisciplinary model involves sharing common knowledge and actions and may represent a significant advance in professional qualification, providing humanized care[12].

In summary, considering the responsibility of Higher Education Institutions (HEI) to graduate qualified health professionals in the approach of painful situations, this study aimed at measuring the knowledge of students of the physiotherapy course about pain and therapies, explaining the best therapeutic approaches to control pain and determining the evolution of knowledge about the subject along the course.

METHODS

This is a descriptive transversal study, with primary database search, carried out in the University Center of Gurupi, with students from the 1st to the 10th period of the Physiotherapy course, in a total of 85 interviewed students.

Data were collected in the second half of May 2013, through a questionnaire with objective questions. Participated in the study students attending classes on the date of the approach. All participants have signed the Free and Informed Consent Term (FICT). Participants below 18 years of age or with a different academic education were excluded.

Data collection tool was a self-administered questionnaire proposed and validated by Sereza & Dellaroza[13] with 27 objective questions. There were 12 questions about general pain principles and 15 about pain relief therapies. Afterward, five questions prepared by researchers about physiotherapy to control pain were added.

To collect further data needed for the research, a semi-structured self-administered questionnaire with questions about pain was developed, in addition to personal data such as registration number, period, age and gender.

Pain-related themes addressed during graduation, knowledge about general pain aspects, pharmacological and non-pharmacological therapies and the action of physiotherapists to control pain were studied.

Statistical analysis

Database was organized in Microsoft Excel® - Windows 2010 spreadsheets, which allowed the organization of data in figures and tables.

To define the objectives and to help data analysis, questionnaire items were grouped in aspects related to pathophysiology, pain evaluation and subjectivity, pharmacological and non-pharmacological therapies and physiotherapy to control pain.

Statistical analysis was carried out by means of absolute and relative frequency, in addition to dispersion measures, when applicable.

This study was approved by the Research Ethics Committee, University Center of Gurupi, under opinion 160.170/2012 and has no ethical breaches according to resolution 196/96 of the National Health Council.

RESULTS

From 137 students enrolled in UNIRG's Physiotherapy course, 64.9% (n=89) have answered the questionnaire. Due to exclusion criteria, 4.4% of sample (n=4) were removed from the study. The loss of 35.1% may be explained by the fact that students were not attending classes on the date of the approach and because answering the questionnaire was not mandatory.

Study population was made up of 61.0% (n=53) female and 39.0% (n=32) male students, aged from 18 to 38 years (mean = 22.23±3.39 years).

Figure 1 illustrates the distribution of students by groups, namely: A (GA), initial (1st to 4th period); B (GB), specific (5th to 8th period); and C (GC), trainees (9th to 10th period). This division helped explain the evolution of knowledge of the theme addressed during graduation.

Figure 2 reflects the approach of pain-related themes during Physiotherapy graduation course.

With regard to attending pain-related events and courses, 94.0% of students have reported not attending and from those attending one was from GA, two from GB and two from GC.

Whether pain may be considered the fifth vital sign, similarly to blood pressure, pulse, respiratory rate and temperature, 69.0% have agreed with the statement, however 20.0% have disagreed and 11.0% could not answer.

Table 1 shows the distribution of answers about pain pathophysiology. As shown, the first two statements had results below 50.0% with regard to correct answers, especially for GB and GC, where a more relevant knowledge about the subject was to be expected, because these are more advanced groups as compared to GA.

With regard to pain intensity and severity of the injury, distribution of answers shows a concept not learned by everybody, since answers in the spaces agree and partially agree corresponded to more than 80% in all groups.

With regard to placebo, agree, partially agree and disagree answers of the three groups had higher scores as compared to the correct answer, disagree.

When stated that pain could be of psychological or emotional origin, all groups have skillfully answered, showing a good understanding about the multidimensional aspects of pain.

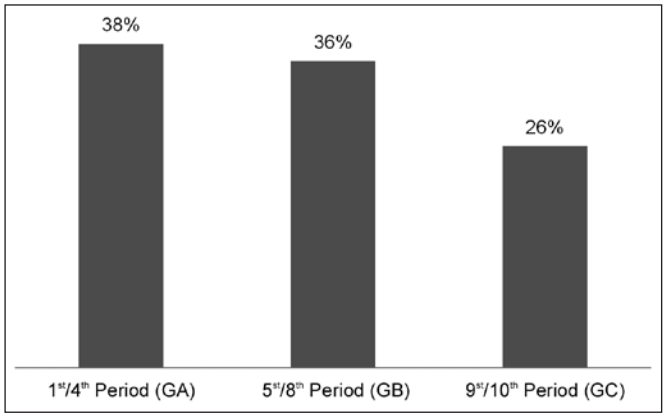

Figure 1. Distribution of students by groups

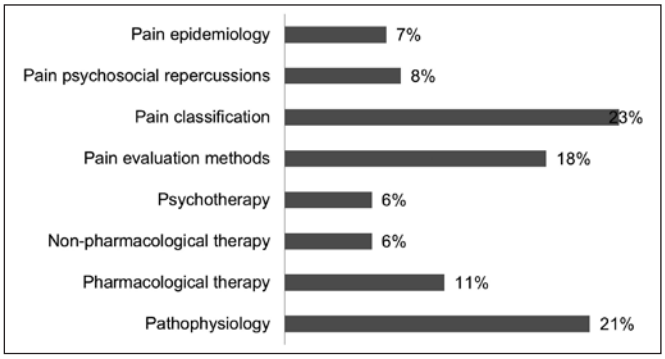

Figure 2. Pain-related themes addressed during Physiotherapy graduation course

Table 1. Distribution of answers about pain pathophysiology

Pain pathophysiology	Groups	Agree (%)	Partially A. (%)	Disagree (%)	Do not know (%)
Pain intensity is directly related to tissue injury severity	A	71.8	12.5	15.6 **	0.0
	B	64.5	19.3	16.1 **	0.0
	C	50.0	45.4	4.5 **	0.0
Patients who, after receiving placebo, state that pain has decreased, in reality had no pain	A	15.6	21.9	31.2 **	31.2
	B	32.2	19.4	32.2 **	16.1
	C	27.3	27.3	40.9 **	4.5
Pain may be of psychological or emotional origin	A	75.0 **	15.6	6.2	3.1
	B	87.1 **	12.9	0.0	0.0
	C	68.2 **	27.3	0.0	4.5
There are cases where pain is the disease itself rather than a secondary symptom	A	75.0 **	15.6	3.1	6.2
	B	48.4 **	25.8	9.7	16.1
	C	54.5 **	22.7	18.2	4.5
Pain may be present in a site without visible injury	A	90.6 **	0.0	3.1	6.2
	B	93.5 **	3.2	0.0	3.2
	C	95.4 **	4.5	0.0	0.0

Group A: students from the 1st to the 4th period, Group B: 5th to 8th period, and Group C: 9th to 10th period; partially A.: partially agree; ** indicate correct answers. In some answers about pathophysiology, students had a good performance since they have adequately answered the questions.

Table 2 shows students' performance with regard to pain subjectivity and evaluation. In this question, students in general have shown that they master the subject, remaining GA with the statement that culture influences pain expression with 37.5% agreements and 40.6% between not sure and not knowing the answer. This score may be considered acceptable, since this is an initial group.

As opposed to pain pathophysiology, subjectivity and evaluation, where students showed a good performance, results were different with regard to pain therapy, as shown in table 3.

About the need to heal the disease and not pain, students of all groups had scores below 50.0% as compared to the correct answer, partially agree.

Along the same lines, only 50.0% of GA, 32.2% of GB and 45.4% of GC have agreed that pain may be treated even before knowing its cause.

As to painful patients being effectively treated, error score is highly noticeable between those who agreed and those who partially agreed with the statement in all groups, remaining GA with 46.9%, GB with 70.9% and GC with 54.5%.

Table 4 shows that students are well prepared with regard to physiotherapeutic techniques to control pain; however, they were not sure when asked about electrotherapy for the inflammatory process. Partially agree and do not know answers have scored 40.6, 32.3 and 50.0%.

As seen in table 5, students in general have adequately answered the questions, except when asked about indication of psychotherapy.

Psychotherapy is indicated both for biological and non biological diseases and this concept was neglected by students. As shown by the answers, only 9.4% of GA, 16.1% of GB and 13.5% of GC have disagreed with the statement.

With regard to distraction techniques, only GC had scores lower than 50.0. Not sure and do not know have scored, together, 54.6%,

Table 2. Distribution of answers about pain subjectivity and evaluation

Pain subjectivity and evaluation	Groups	Agree (%)	Partially A. (%)	Disagree (%)	Do not know (%)
Pain should be systematically evaluated	A	53.1 **	28.1	3.1	15.6
	B	87.1 **	6.4	0.0	6.4
	C	77.3 **	13.6	4.5	4.5
Culture influences pain expression	A	37.5 **	18.7	21.9	21.9
	B	58.0 **	19.3	9.7	12.9
	C	54.5 **	9.1	27.3	9.1
Patient is the highest authority to report his pain	A	81.2 **	12.5	6.2	0.0
	B	83.9 **	16.1	0.0	0.0
	C	81.8 **	18.2	0.0	0.0
Although pain perception threshold is similar among individuals, tolerance to pain varies a lot	A	84.4 **	9.4	0.0	6.2
	B	77.5 **	19.3	0.0	3.2
	C	86.3 **	13.6	0.0	0.0

Group A: students from the 1st to the 4th period, Group B: 5th to 8th period, and Group C: 9th to 10th period; partially A.: partially agree; ** indicate correct answers.

Table 3. Distribution of answers about pain therapy

Pain therapy-related aspects	Groups	Agree (%)	Partially A. (%)	Disagree (%)	Do not know (%)
It is necessary to heal the disease, not pain	A	21.9	28.1 **	46.9	3.1
	B	25.8	16.1 **	58.0	0.0
	C	22.7	36.3 **	40.9	0.0
In general, painful patients are effectively treated	A	12.5	34.4	28.1 **	25.0
	B	25.8	45.1	22.6 **	6.4
	C	22.7	31.8	36.3 **	9.1
Pain may be treated even before knowing its cause	A	50.0 **	18.7	31.2	0.0
	B	32.2 **	25.8	41.9	0.0
	C	45.4 **	27.3	27.3	0.0

Group A: students from the 1st to the 4th period, Group B: 5th to 8th period, and Group C: 9th to 10th period; partially A.: partially agree; ** indicate correct answers.

Table 4. Distribution of answers about therapeutic resources to control pain

	Groups	Agree (%)	Partially A. (%)	Disagree (%)	Do not know (%)
Thermotherapy, with heat, is contraindicated for acute inflammatory processes	A	71.9 **	6.3	12.5	9.3
	B	67.7 **	12.9	19.4	0.0
	C	77.3 **	4.5	18.2	0.0
Low frequency electric currents have no contraindication for inflammatory processes	A	28.1 **	0.0	31.3	40.6
	B	29.0 **	12.9	38.7	19.4
	C	18.2 **	31.8	31.8	18.2
Cryotherapy is better indicated for acute inflammatory processes	A	59.0 **	13.0	6.0	22.0
	B	87.1 **	9.7	3.2	0.0
	C	91.0 **	4.5	4.5	0.0
Hydrotherapy, such as water kinesiotherapy, may be considered to treat acute and chronic pain	A	72.0 **	9.0	13.0	6.0
	B	67.8 **	25.8	6.4	0.0
	C	86.4 **	13.6	0.0	0.0
Pain treatment by manual therapies consists in the efficacy of the therapeutic touch.	A	62.5 **	28.1	6.3	3.1
	B	67.8 **	25.8	3.2	3.2
	C	72.7 **	27.3	0.0	0.0

Group A: students from the 1st to the 4th period, Group B: 5th to 8th period, and Group C: 9th to 10th period; partially A.: partially agree; ** indicate correct answers.

Table 5. Distribution of answers about non-pharmacological therapies to control pain

Non-pharmacological therapy to control pain	Groups	Agree (%)	Partially A. (%)	Disagree (%)	Do not know (%)
Acupuncture is a useful indication for some pain presentations	A	90.6 **	9.4	0.0	0.0
	B	87.1 **	12.9	0.0	0.0
	C	100 **	0.0	0.0	0.0
Psychotherapy is only indicated in cases where biological causes are not found	A	56.2	6.2	9.4 **	28.1
	B	25.8	35.5	16.1 **	22.6
	C	22.7	13.6	13.6 **	50.0
Techniques such as applying heat, cold and massage are therapeutic alternatives for pain	A	93.7 **	6.2	0.0	0.0
	B	67.7 **	29.0	0.0	3.2
	C	95.4 **	0.0	4.5	0.0
Relaxation techniques are only indicated for emotional stress relief	A	25.0	28.1	43.7 **	3.1
	B	16.1	25.8	58.0 **	0.0
	C	22.7	27.3	50.0 **	0.0
Distraction techniques may promote pain relief	A	50.0 **	28.1	9.4	12.5
	B	61.3 **	25.8	0.0	12.9
	C	40.9 **	27.3	4.5	27.3

Group A: students from the 1st to the 4th period, Group B: 5th to 8th period, and Group C: 9th to 10th period; partially A.: partially agree; ** indicate correct answers.

Table 6 shows students' performance with regard to pharmacological therapy and the use of opioids.

About analgesic administration in fixed schedule for patients at risk for pain, the indecision of all groups has called our attention, since the total number of partials and do not know was 43.7% for GA, 48.4% for GB and 50.0% for GC.

Based on the statement that patients should tolerate pain to prevent excessive medication, students of all groups have performed well below 50.0% with regard to the right answer disagree, remaining with scores of 18.7, 16.1 and 9.1, respectively.

Anti-inflammatory analgesics have ceiling dose, that is, as from a certain dose they no longer produce effects. Table 6 shows that only GA had a considerable result with 53.1%.

Groups are unaware that opioids may induce tolerance – 59.4, 54.8 and 45.4%, respectively – they are unaware that psychic dependence is rare with morphine and do not know its side effects. In addition, 58.0% of GB and 63.6% of GC have

Table 6. Distribution of answers about pharmacological therapy and the use of opioids to control pain

Pharmacology and opioids to control pain	Groups	Agree (%)	Partially A. (%)	Disagree (%)	Do not know (%)
If pain is bearable, it is better not to medicate and investigate the cause	A	50.0	15.6	31.2 **	3.1
	B	32.2	19.4	32.2 **	16.1
	C	59.1	22.7	9.1 **	9.1
It is better to use analgesics in fixed schedules for patients at risk of pain	A	34.4	25.0	21.9 **	18.7
	B	19.3	25.8	32.3 **	22.6
	C	13.6	31.8	36.4 **	18.2
Advise patient to tolerate pain and to space the use of analgesics as a way to prevent excessive medication	A	65.6	9.4	18.7 **	6.2
	B	38.7	22.6	16.1 **	22.6
	C	50.0	31.8	9.1 **	9.1
Analgesics may induce addiction	A	84.4 **	6.2	3.1	6.2
	B	67.7 **	6.5	6.5	19.3
	C	86.4 **	4.5	4.5	4.5
When analgesics are prescribed "as needed", one should always wait for patient's request	A	25.0 **	12.5	28.1	34.4
	B	29.0 **	12.9	22.6	35.5
	C	18.2 **	27.3	22.7	31.8
Anti-inflammatory drugs have maximum dose, that is, as from a certain dose they do not produce further analgesic effect	A	53.1 **	12.5	9.4	25.0
	B	29.0 **	25.8	3.2	41.9
	C	45.4 **	18.2	9.1	27.3
Strong opioids, such as meperidine, may induce tolerance, but not physical dependence	A	12.5	18.7	9.4 **	59.4
	B	9.7	25.8	9.7 **	54.8
	C	4.5	13.6	36.4 **	45.4
Psychic dependence is rare with morphine	A	6.2 **	12.5	18.7	62.5
	B	6.5 **	22.6	29.0	41.9
	C	9.1 **	9.1	31.8	50.0
Morphine should only be used as last alternative	A	34.4	15.6 **	12.5	37.5
	B	58.0	12.9 **	6.5	22.6
	C	63.6	9.1 **	4.5	22.7
Morphine poses a high risk for respiratory depression	A	18.7	6.2	0 **	75.0
	B	41.9	9.7	3.2 **	45.2
	C	36.4	9.1	4.5 **	50.0

Group A: students from the 1st to the 4th period, Group B: 5th to 8th period, and Group C: 9th to 10th period; partially A.: partially agree; ** indicate correct answers.

agreed that morphine should only be used as last alternative. In general, when comparing among groups, mean right answers was 46.8% for GA, 47.0% for GB and 49.7% for GC, with minimal proportional evolution among groups.

DISCUSSION

The independent focus given to pain without links needed for clinical understanding ends up impairing its understanding, and results in professionals without an integrated vision of pain[14]. During graduation, pain is not addressed as a major subject, but rather as a complementary concept in several disciplines. Very often the theme is part of the summary, but does not really prepare professionals to handle pain[13].

It is critical to understand the subject since pain relief is the primary objective of physiotherapists' management plan. A study[13] has observed that no Physiotherapy course student had attended any pain-related event.

The need to recognize pain as the fifth vital sign was described for the first time by James Campbell[1] in 1996 where, in his opinion, if pain were evaluated with the same care as other vital signs, there would be a better chance of promoting adequate management. As from this idea, several authors started considering the importance of recognizing pain as the fifth vital sign, being its control considered a basic human right[13-23].

The understanding of pain pathophysiology is highly important for every professional, since this is the basis for a high quality care[13].

With regard to pain intensity and severity of the injury, one may say that pain is a complex, multifactorial and subjective phenomenon where not only biological aspects are involved, but also sociocultural and emotional factors[24]. Pain results from the interrelation of sensory, cognitive, behavioral and cultural aspects. Past and current aspects of life and personal experiences significantly interact with pain perception and its intensity is not directly related to tissue injury severity[2].

Placebo is an inert substance without specific action on patients' symptoms or diseases. It has the appearance but not the pharmacological action of a drug. It is used to meet patients' symbolic needs, that is, brain reality is what matters[16]. This way, one cannot say that when placebo relieves pain there was really no pain.

The individual, for being unique, has a whole story and his own way of feeling pain; two people do not equally feel identical nociceptive stimulations. Neurophysiologic, hormonal, cultural, situational, emotional and psychological factors may influence and interact affecting the magnitude of pain-related sensation and discomfort[5].

A thorough evaluation is undoubtedly the starting point for a good management. Without it, pain may be misinterpreted and/or undertreated and may lead to inadequate intervention, thus impairing quality of life. Situational, cultural, emotional and psychological factors influence the way patients feel pain[5]. To evaluate pain, needed information comes from patients' reports and is complemented by physical evaluation, being the patient – within the clinical context – considered the measurement tool[17]. Patient is the highest authority on pain and its tolerance varies in an individual basis[5-21].

Table 3 shows results about pain therapies. As opposed to previous questions, where students were successful, here the answers have revealed fragility of concepts.

One should be concerned with healing the disease; however this action should not be separated from pain control. Controlling pain is often critical since many chronic diseases are incurable[13]. When the cause is unknown, controlling pain becomes indispensable. Adequate analgesia helps interventions and has lower risk of complications. To assure quality of life, pain control becomes critical[25].

Painful patients are not effectively assisted. This is because many patients are unaware of the importance of evaluation and adequate treatment, and because their financial conditions are unfavorable[3]. When a patient repeatedly reports pain, he becomes "inconvenient", leading health professionals to neglect him and to an ineffective treatment.

Thermotherapy with heat is contraindicated during the acute inflammatory process for promoting vasodilation and increasing pro-inflammatory cells metabolism[25]. Cryotherapy, on the other hand, decreases edema with its vasoconstrictor action, being indicated for acute inflammatory stages. Cold applications below 10º Celsius, relieve pain by decreasing the number of painful stimulations sent to the brain, making them slower[25-27].

Low frequency electric currents are not contraindicated for the inflammatory process and do not interfere with its exsudative reactions. This is explained because currents' analgesic action is induced by the "gate theory", where large type A afferent fibers (faster for being myelinated) are stimulated, while type C fibers (non myelinated and slower) are inhibited, closing the spinal gate opening, in addition to the participation of inhibitory neurotransmitters, such as encephalins, acetylcholine and GABA[26-29].

Hydrotherapy has many beneficial effects both for acute and chronic pain. Many of such effects, when associated to kinesiotherapy, are due to physical properties of water. Some benefits are relaxation, analgesia, and decreased joints impact and aggression[30-32].

Tissue massage stimulates sensory receptors producing a sensation of pleasure and/or wellbeing and decreasing, by stretching, muscle tension, thus promoting relaxation and, as a consequence, decreasing pain. In painful patients, body touch may induce pleasant sensations, such as relaxation and relief. And also negative sensations, such as pain, muscle tension, irritation, anxiety and symptoms worsening, if the therapist is not qualified to adequately develop the therapy[33].

Mind-body integration should be the objective of the analgesic therapy, where the stimulation of the five senses helps creating a favorable atmosphere for the acceptance of pain[29].

Psychotherapy, among other techniques, helps decreasing anxiety, promoting a sensation of rest and physical and mental wellbeing, helping patients to accept the disease, encouraging them to normalize their emotional status and to understand the objectives of life[25].

Distraction consists in focusing the attention on other stimulations which are different from pain. When attention is focused on pain, it may be maximized so this technique is used to turn patients attention to other more pleasant situations such as music, TV, manual craft and books, among others, since changing the focus of attention decreases pain intensity and experience[34,35].

Early pain management prevents or minimizes morbidities and mortalities[13,14]. It is worth stressing the distress caused by pain and that no individual has to be submitted to "bearable pain". Excessive medication refers to patients' cultural issues. To provide a desired effect, analgesics should be administered at pain complaint – flexible schedules – and not on a fixed schedule[13].

Morphine is effective for neuropathic pain and its use is not restricted only to cancer or terminal patients. In addition, there are more potent drugs than morphine, which disagrees with the statement that it should only be administered as last alternative[36].

Pharmacodynamics associated to clinical experience confirms that there might be tolerance and physical dependence; however this should not prevent the use of opioids because psychic dependence is rare[13].

Confirming our study[13], it was observed that the subject of the study is not approached as a basic discipline, especially in the physiotherapy course of the University Center UNIRG, showing a minimal proportional evolution among groups.

CONCLUSION

This study has shown that pain is addressed during graduation not as a major subject but rather as a complementary concept to several disciplines. Students in general have shown better knowledge in areas such as pathophysiology, subjectivity and evaluation, non-pharmacological treatment and physiotherapy to control pain. In other aspects, groups had scores below 50.0% showing that the subject is not effectively evidenced and absorbed by students. So, a development of the specific approach of pain in the curriculum of the Physiotherapy course of the University Center Unirg is suggested, since this course has as one of its major objectives to decrease pain. We also propose new studies with other pain-related focuses.

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