

### 34 - ASSESSMENT OF THE TRUST OF PAIN SCALE IN A POPULATION OF ELDERLY AND YOUNGS ADULTS

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#### INTRODUCTION

In 1986 pain officially was defined by the International Association will be the Study of Pain (IASP) as being a "ackward sensorial and emotional experience associated to a current or potential damage of the fabric, or described in terms of this damage" (MICELI, 2002). Its importance increased still more when in 1996, American Pain Society (APS) introduced it as "5° signal vital" (GALVÃO; SILVA, 2005; OLIVEIRA, et al., 2003).

Independently of the acceptance of this definition, pain is considered as a originally subjective experience of individual character, therefore it involves physiological, psychological and manning mechanisms alone (MICELI, 2002; SOUSA, 2002). This line, and according to Augusto et al. (2004), pain suffers to variations until way as the individual tells it, therefore this if relates with innumerable personal factors, such as: sex, age, personality, ethnic/cultural inheritance, manning necessities and former painful experiences. Thus, ahead of the subjectivity, complexity and (multidimensionalidade) of the painful experience, the first challenge in the combat to pain initiates in its approach (PEREIRA e SOUSA, 1998).

In the attempt to register of objective form the pain of the patients (unidimensionais) and multidimensional instruments for its approach had been developed. The (unidimensionais) instruments are used, being that they quantify only the severity or the intensity of pain, and, as examples of these instruments have the numerical-verbal scales and analogical-appearances. Already the multidimensional instruments, are used to evaluate and to approach the different dimensions of pain, as sensitive-descriptive and affective-motivation (SOUSA, 2002; PEREIRA e SOUSA, 1998).

In the papers is ample relatively to the evaluation of pain and the way to approach it, however as already said, the (unidimensionais) instruments, for the easiness of application, are used. They more than recommend the use of approach scale or of pain evaluation, so that if they can perceive the advantages and disadvantages of each one ARAÚJO-SOARES e FIGUEIREDO, 2001). Inside of this context, the present work had as objective to evaluate the trustworthiness of five scales of approach of pain in interned aged young adult patient's e in the Cascavel University Hospital.

#### METHODS

The study quali-quantitative, of transversal cut, was previously approved by the Committee of Ethics in Research of Unioeste, campus of Cascavel, and recorded with the number 017611/2006.

The sample counted with 200 patients admitted at the University Hospital of the West of Paraná, in the period from April to July 2006, selected through criteria for inclusion and exclusion of search, featuring as a sample stratified according to age and selected randomly

The patients were divided into two groups of 100 patients each. The group I (GI) was formatted by individuals of both genders (59 men and 41 women), elderly, aged above 60 years (mean age of  $65 \pm 7.51$  years), according to Law no. 1.395/GM of the National Health Policy of Elderly<sup>8</sup>, with maximum age of 90 and minimum of 60 years. The group II (GII) was formatted by individuals young adults of both genders (60 men and 40 women), aged 20 to 40 years (mean age of  $32.5 \pm 5.84$  years).

The criterion of inclusion respected for the study was to sign of freely the Consent Term and report the sensation of pain in the act of search.

Were excluded from the study patients with the level of awareness of Glasgow less than 13 points, insane volunteers or other psychiatric disorders and patients not seen in ages pre-determined.

For the collecting data was used a questionnaire with the aim of knowing the personal data, including the level of education and level of Glasgow. Then was accomplished the assess the pain of volunteers, through the following scales arrays: Scale Visual Analog of Pain (SVA) (PEREIRA, SOUSA, 1998), Scale of Numerical Visual Pain (SNV) (AUGUSTO et al., 2004), Scale of Faces Pain (SF) (AUGUSTO et al., 2004), Scale Graphics of Words Pain (SWG) (MINISTÉRIO DA SAÚDE, 2003), and multidimensional, Scale of Behavioral Pain (SB) (SERRANO, 2002a).

Statistical analysis was accomplished by descriptive statistics, using Excel 2003/XP program of Microsoft Oficce, where the variables qualitative were showed through tables of absolute frequencies, and the quantitative variables were analyzed through averages, standard deviation (SD) and maximum values (Max) and minimum (Min).

The statistical analysis was accomplished using the coefficient of Kappa Agreement, which assessed the degree of agreement among the scales, being classified according to the table used by Farias-Junior, Pires e Lopes (2002). The SVA was admitted as independent variable of the study, thus was used the Software SPSS<sup>®</sup> version 13.

#### RESULTS

In relation to scales of assessment of pain, the GI presented average of  $3.70 \pm 2.29$  points in SVA, (9.8 to 0.3 points). In EVN results pointed to the average of  $5 \pm 2.34$  points (1-10 points). In SF the average score obtained was  $4 \pm 1.75$  points (3-10 points). In the SB average was  $6 \pm 2.3$  points (3-10 points). In EGP presented the average was  $5 \pm 1.91$  points (3-10 points), as shown in table 1.

The IGI showed average of  $3.70 \pm 2.26$  points in the SVA (0.7 to 10 points),  $4.5 \pm 2.3$  points (1-10 points) in SNV,  $4 \pm 1.80$  points (2 - 10 points) at SF,  $6 \pm 2.37$  points (3-10 points) in the SB, and  $5 \pm 1.78$  points (3-10 points) in the SWG (table 1).

TABLE 1: Presentation of measures of central tendency and measures of dispersion the results obtained through the application of the scales of pain.

	Scale	Means/SD	Max	Min
GI	SVA	3,70 ± 2,29	9,8	0,3
	SNV	5 ± 2,34	10	1
	SF	4 ± 1,75	10	3
	SB	6 ± 2,3	10	3
	SWG	5 ± 1,91	10	3
GII	SVA	3,70 ± 2,26	10	0,7
	SNV	4,5 ± 2,3	10	1
	SF	4 ± 1,80	10	2
	SB	6 ± 2,37	10	3
	SWG	5 ± 1,78	10	3

In GI, the SNV presented weak agreement (K = 0.37) with SVA, the SF also Showed poor agreement (K = 0.13), the SB demonstrated no compliance (K = 0.03), and SWG the agreement was also weak (K = 0.26).

In GII, the SNV presented a strong index of agreement with SVA ( $K = 0.66$ ), the SF presented poor rate of compliance ( $K = 0,12$ ), the SB showed weak agreement ( $K = 0,26$ ), and SWG the agreement was moderate, ( $K = 0,45$ ) (Table 2).

TABLE 2: Presentation of the Kappa coefficient of the scales of assessment of pain with SVA observed in GI and GII.

group	SWG	SH	SF	SNV
GI	0,26	0,03	0,13	0,37
GII	0,49	0,26	0,12	0,66

## DISCUSSION

The pain is considered a vital sign as important as the other (frequencies heart and breathing, temperature, blood pressure, etc. And should always be evaluated in a clinical environment, to undertake a treatment or behavior therapy. The efficacy of treatment and its follow depends on an evaluation and measurement of reliable and valid pain (PEDROSO; CELISH, 2006).

In this context, the present study sought to evaluate the confidence of 5 scales of measurement of pain, applying them in elderly population and young adults, having in one of these scales, the SVA, the benchmark comparative

Verifying the level of compliance of the other four scales of assessment of pain chosen (SNV, SF, SB and SWG), with the SVA, through of kappa index, noted that the SNV presented strong concordance in the group of young adults, but low concordance in the group of elderly. Already the scales SB, SWG and SF, showed concordance weak, especially in the elderly group.

In this purpose, some authors as Galvão e Silva (2005), mention that the scales of assessment of pain have not been shown to the appropriate aging population. The findings of this study corroborates with the authors above, Where was observed that the index of scales of agreement with SVA, decreased with advancing age, demonstrated by the highest percentage of differ responses.

The authors of this study refer to a crucial aspect to the correct completion of the instruments used in this survey, which influenced the responses of the elderly, was the cognitive level. According Fávero e Soares (2002), the cognitive development includes factors educational, social, cultural, linguistic and neurological.

Thus, the physiological normal cognitive decline that affects the elderly, as stated Charchat-Fichman et al. (2005), combined with the low educational level of individuals of GI, generated lower rates of concordance between scales, with the lowest concordance between the SVA and SB.

The SVA is classified as unidimensional, it evaluates only one of the dimensions of painful experience, the intensity (NETO; GOLDENBERG; JUCÁ, 2003). Jensen et al. (1986), stated that for young individuals, this scale shows high validity and reliability, however, the increase in age is related to the increase of incorrect answers for the SVA.

The data of this research corroborates the findings of the authors quoted above, since the indices of Kappa concordance of the scales with the SVA, in the group of elderly, were with the SWG 0.26, 0.03 with the SB, 0.13 with SF, and 0.37 with SNV. But in the group of young adults the contents of the agreement with SVA scales were significantly higher, with the SWG 0.49, 0.26 with the SB, with the SF 0.12, and 0.66 with SNV.

It should be noted that the concordance of SNV with the SVA presented higher indices in both groups, confirmed by the writings of Pedroso e Celish (2002), where such scales are described as having the advantage of facilitating the understanding of the individual assessed and thus to facilitate the choice of appropriate response.

The authors of this study believe that the strong concordance of SNV with SVA is due to the fact that both scales are unidimensional, and well as the similarity in view, which makes it easier for patients to quantify the intensity of pain. The SB is classified as multidimensional, as well as evaluate the intensity, examines the pain depending on the activities of daily life (SERRANO, 2002).

Still, according to Santos et al. (2006), with the advancing of age the pain assumes greater importance in daily activities due to their prevalence expressive combined with frequent overall functional limitation hers resulting.

However, the SB has showed, among the scales, smaller agreement with SVA, in the group of elderly. What should not be considered relevant, since the SB which has multidimensional character.

In this study, as example of the results reported by Santos et al. (2006), For which the elderly, in most cases, have increased their pain in dimensions, which means also says that the pain in the elderly is difficult to be recognized.

Therefore it is suggested that for the evaluation of pain should be considered the age and the level of education of individuals. For the assessment in the elderly, it is important to consider the physiological decrease in the level of cognitive group, and opt for the use of other forms of assessment of pain.

In that sense, and how alternatives to the scales used in this study, Chaves (2004), highlights the following as signs of pain: report verbal or coded, protecting gestures, facial expression, disturbances of sleep, autonomic responses, expressive behavior, and changes in diet, slaughtered appearance and reduced interaction with the environment.

## CONCLUSION

Being the goal of the study evaluating the concordance of scales SNV, SF, SB and SWG, with the SVA, it is concluded that these scales showed more agreement with SVA in the group of young adults, but in the group of elderly the concordance obtained was weak.

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#### ASSESSMENT OF THE TRUST OF PAIN SCALE IN A POPULATION OF ELDERLY AND YOUNGS ADULTS

##### ABSTRACT:

Pain is defined as awkward sensorial and emotional experience associated to a current or potential damage, or described in terms of this damage, receiving the denomination from the "fifth vital sign". Ahead of the subjectivity, complexity and multidimensional painful experience, the first challenge in the combat to pain is initiated in its measurement. To evaluate the agreement of the scales Numerical Visual Scale (NVS), of Faces Scale (FS), Behavioral Scale (BS) and Words Graphical Scale (WGS), with Visual Analogue Scale (VAS), applied in aged and adult young interned in the University Hospital of the West of the Paraná. Method: The pain of two groups of patients was evaluated, young adults and elderly, contends 100 individuals each, in the period of April the July of 2006, that criteria of inclusion and exclusion of the research had been selected in agreement. The evaluation pain was carried through, through the scales VAS, NVS, FS, BS and WGS. It verified if the level of agreement with use of the index of Kappa. It was noticed that the NVS presented greater agreement with VAS in both the groups. Already scales BS, WGS and FS, had mainly presented weak agreements in the group of aged. It can be concluded more that for the measurement of pain, it is of great importance to consider the level of education and age of the patient, for the choice of the adjusted method of evaluation. KEYWORDS: pain scale, elderly, young adults.

#### ÉVALUATION DE LA CONFIANCE DES ÉCHELLES DE MESURE D'INTENSITÉ DE LA DOULEUR POUR UNE POPULATION DE PERSONNES ÂGÉES ET DE JEUNES ADULTES

##### RÉSUMÉ :

La douleur est définie comme une expérience sensorielle et émotionnelle désagréable associée à un dommage actuel ou potentiel du tissu, ou décrite en terme de ce dommage, recevant la dénomination de "5<sup>ème</sup> signal vital". Devant la subjectivité, la complexité et la multi-dimensionnalité de l'expérience douloureuse, le premier défi du combat à la douleur commence par la mesure de son intensité. Évaluer la concordance des échelles: Échelle Visuelle Numérique (EVN), Échelles des Visages (EV), Échelle Comportementale (EC) et Échelle Graphique des Mots (EGM), avec l'échelle visuelle analogique (EVA), appliqués chez les personnes âgées et chez les jeunes adultes internés À l'hôpital Universitaire de l'Ouest du Parana. Nous avons évalué deux groupes de patients, des personnes âgées (groupe I) et de jeunes adultes (groupe II), contenant chacun 100 individus, entre les mois d'avril et juillet 2006, qui ont été sélectionnés selon des critères d'inclusion et d'exclusion de la recherche. L'évaluation de la douleur a été réalisée à travers les échelles EVA, EVN, EV, EC et EGM. Le niveau de concordance a été vérifié grâce à l'utilisation de l'indice de Kappa. Il a été possible d'observer que l'EVN a présenté une faible concordance avec l'EVA dans le groupe I et une bonne concordance dans le groupe II. Alors que les échelles EC, EGM et EV, ont présenté des concordances faibles principalement dans le groupe des personnes âgées. On peut conclure que pour mesurer l'intensité de la douleur, il est de grande importance de considérer le niveau de scolarité et l'âge du patient, afin de choisir la méthode d'évaluation la plus adéquate. MOTS CLES: échelle de douleur, personnes âgées, jeunes adultes.

#### LA VALORACIÓN DE LA CONFIANZA DE BALANZA DE DOLOR EN UNA POBLACIÓN DE ANCIANO Y ADULTOS JÓVENES

##### RESUMEN:

El dolor es definido como desagradable experiencia sensorial y emocional asociado a un daño actual o potencial de el tejido, o descrito en términos de este daño, recibiendo la denominación de la 5ª señal vital. Delante de la subjetividad, de la complejidad y del multidimensionalidad de la experiencia dolorosa, el primer desafío en el combate al dolor se inicia en su mensuración. Evaluar la concordancia de las escalas: Escala Visual Numerica (EVN), Escala de las Caras, (EF), Escala Comportamental (EC) y la Escala Gráfica de Palabras (EGP), con la Escala Visual Analógica (EVA), se aplicaron en los ancianos y adultos jóvenes internados en el Hospital Universitario del Oeste del Parana. Fue evaluado el dolor de dos de los grupos de los pacientes, ancianos (grupo I) y adultos jóvenes (grupo II), contiendo 100 individuos cada uno, en el período de abril hasta julio del 2006, que habían sido seleccionado conforme criterios de la inclusión y de la exclusión de la investigación. La evaluación del dolor fue realizado por medio de las escalas EVA, EVN, EF, EC y EGP. Fue verificado el nivel del concordancia con el uso del índice de Kappa. Fue posible observar que la EVN presento débil concordancia con la EVA en el grupo I y buen concordancia en el grupo II. Pero las escala EC, EGP y EF, presentaron concordancias débiles principalmente en el grupo de ancianos. Puedese concluir que para el mensuración del dolor, es del gran importancia considerar el nivel del escolaridad y la idade del paciente, para la opción del metodo más adecuado de la evaluación.

PALABRAS-LLAVE: escala del dolor, ancianos, adultos jóvenes.

#### AVALIAÇÃO DA CONFIANÇA DAS ESCALAS DE MENSURAÇÃO DA DOR EM UMA POPULAÇÃO DE IDOSOS E DE ADULTOS JOVENS

##### RESUMO:

A dor é definida como desagradável experiência sensorial e emocional associada a um dano atual ou potencial do tecido, ou descrita em termos deste dano, recebendo a denominação de "5º sinal vital". Diante da subjetividade, complexidade e multidimensionalidade da experiência dolorosa, o primeiro desafio no combate à dor inicia-se na sua mensuração. Avaliar a concordância das escalas: Escala Visual Numérica (EVN), Escala de Faces, (EF), Escala Comportamental (EC) e Escala Gráfica de Palavras (EGP), com a Escala Visual Analógica (EVA), aplicadas em idosos e adultos jovens internados no Hospital Universitário do Oeste do Paraná. Foi avaliada a dor de dois grupos de pacientes, idosos (grupo I) e adultos jovens (grupo II), contendo 100 indivíduos cada, no período de abril a julho de 2006, que foram selecionados conforme critérios de inclusão e exclusão da pesquisa. A avaliação a dor foi realizada, através das escalas EVA, EVN, EF, EC e EGP. Verificou-se o nível de concordância com utilização do índice de Kappa. Foi possível observar que a EVN apresentou fraca concordância com a EVA no grupo I e boa concordância no grupo II. Já as escalas EC, EGP e EF, apresentaram concordâncias fracas principalmente no grupo de idosos. Pode se concluir que para a mensuração da dor, é de grande importância considerar o nível de escolaridade e a faixa etária do paciente, para a escolha do método mais adequado de avaliação. PALAVRAS-CHAVE: escala de dor, idosos, adultos jovens.