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Pain in the elderly and in patients with cognitive deficit. A DELPHI study

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ABSTRACT

Objectives: Many elderly people living in nursing homes suffer from chronic pain and almost half of them may be affected by cognitive impairment. This situation reduces the possibility of communicating the pain they suffer and may hinder its detection by health professionals under their care. The aim of this study is to find the opinions and beliefs of healthcare workers who look after them regarding the presence of pain, and the methods to assess this.

Material and methods: Physicians, psychologists, physical therapists, nurses and nursing assistants from 25 nursing homes in Catalonia were invited to take part. The first phase included 22 centers and 107 persons. A questionnaire with 19 assertions (16 assessed with a Likert-type scale and 3 open questions) was used. In the second phase, a new questionnaire was prepared, distributing answers from the first phase. In this phase, 19 centers (76%) and 90 people (84%) agreed to collaborate again.

Results: A consensus (≥90% agreement) was reached regarding the following statements: a) Pain among the elderly is an exclusively physical symptom (disagree); b) Chronic pain among the elderly cannot be treated (disagree); c) Lack of verbal communication to report pain among the elderly with cognitive impairment may lead to inadequate treatment (agree); d) may be equally evaluated in people with oral communication as among those who cannot do so (disagree); e) There are insufficient tools for assessing pain in patients with cognitive impairment and limited communication (agree); f) Elderly persons feel pain more frequently than younger persons because it is the only way to feel alive (disagree). The variation index in the two phases was less than 0.04 and the Spearman analysis did not find any different answers in the different health worker profiles.

Conclusions: These results showed that health professionals believed that there is a lack of adequate tools to evaluate pain in their patients and that this situation may have a deleterious effect on them and also on health professionals. It is suggested that the use of the observation of behavioral changes may be the best way to assess pain and that they should be included in the evaluation tools to be used in patients with communication disabilities.

Key words: Delphi study, geriatric pain, pain assessment, patients with dementia, beliefs of health professionals.

RESUMEN

Objetivos: Muchos ancianos que viven en centros socio-sanitarios sufren de dolor crónico y casi la mitad de ellos pueden presentar alteraciones cognitivas. Esta situación reduce considerablemente su posibilidad de comunicar el dolor que padecen y puede impedir que sea detectado por los profesionales sanitarios que les atienden. El objetivo del presente estudio Delphi fue conocer la opinión de los profesionales implicados en el cuidado de los pacientes ancianos con alteraciones cognitivas graves sobre la presencia de dolor y la valoración de su existencia.

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Material y métodos: Se invitó a participar a médicos, psicólogos, fisioterapeutas, enfermeras y auxiliares de clínica pertenecientes a 25 centros socio-sanitarios de Cataluña. En la primera fase, participaron 22 centros (88%) y 107 expertos. Se elaboró un cuestionario con 19 enunciados (16 valorados según la escala tipo Likert y tres preguntas abiertas). En la segunda, se preparó un cuestionario con la distribución percentual de respuestas en cada enunciado. Colaboraron 19 centros (76%) y 90 profesionales (84%).

Resultados: Se obtuvo consenso (≥90% de coincidencia) en los siguientes enunciados: a) el dolor en los ancianos es un síntoma exclusivamente físico (en desacuerdo); b) el dolor crónico del anciano es intratable (en desacuerdo); c) la falta de capacidad verbal para manifestar el dolor en los ancianos con alteraciones cognitivas puede conducir a un tratamiento insuficiente (en acuerdo); d) se puede evaluar el dolor de la misma manera en aquellas personas que pueden expresarlo de forma verbal que en aquellas que no pueden hacerlo (en desacuerdo); e) no existen instrumentos suficientes para valorar la presencia de dolor en pacientes con deficiencias cognitivas y dificultades de comunicación (en acuerdo); f) los ancianos sienten más el dolor pues es la única forma de sentirse vivos (en desacuerdo). El índice de variación de estabilidad de respuesta en las dos rondas fue inferior al 0,04 y el análisis de correlación de Spearman no encontró comportamientos diferentes en la respuesta de ninguna de las subpoblaciones de profesionales.

Conclusiones: Los resultados muestran que los profesionales sanitarios creen que faltan instrumentos adecuados para valorar el dolor en sus pacientes y que este hecho puede conllevar consecuencias deletéreas tanto para ellos como para los profesionales que los atienden. Se propone la observación de los cambios conductuales como la mejor forma de valorar el dolor y su empleo en instrumentos de evaluación para aquellos pacientes con dificultades de comunicación oral.

Palabras clave: Estudio Delphi, dolor geriátrico, evaluación del dolor, pacientes con demencia, creencias de profesionales sanitarios.

INTRODUCTION

Self-assessment continues to be the recommended method for evaluating pain despite the intrinsic limitations of tools that only consider the patient's opinion, which may be modulated by a number of factors (1-4). Nevertheless, their use may be inadequate in patients who, affected by neurological or psychiatric problems, have a limited or zero capacity for communicating with health professionals. This is especially the case in patients with dementia syndromes or with serious consequences following cerebrovascular accidents (4).

The aging process among western populations and the high prevalence of such clinical situations suggests that caring for persons with chronic pain and with communication difficulties is increasing and will continue to do so in coming years (5,6). In view of the difficulties in assessing pain in these patients, it is important for professionals who care for them to have tools that can facilitate this major aspect of health care. Twenty years ago, there were virtually no tools that provided adequate pain evaluation in patients with communication difficulties, but since then, a significant number have been developed (7,8). In a recent review, the authors analyzed fifteen of these and concluded that more empirical evidence was necessary to establish their real practical usefulness beyond the health-care environments where they were initially set up (4).

These tools' normal use in health-care practice requires the conviction of the professionals involved regarding the validity, reliability, relevance and feasibility of their use. Accordingly, we need to know their opinion of pain among patients with cognitive deficit, and how to evaluate it. However, there are no publications that analyze these perceptions. For this reason, the aim of this study is to find out the opinion of health-care professionals regarding the presence of pain among elderly patients with cognitive deterioration. Specifically, it seeks to find the importance of pain in health-care practice, how it is evaluated and how it should be optimally carried out. To do so, a Delphi strategy was applied, a method used in medical analyses to establish consensus in different aspects of health care (9,10).

METHODS

Characteristics of the Delphi Study

A Delphi study is a structured process involving the participation of experts who are invited to complete a series of "rounds" to gather and refine information on the issues behind the study, to eventually reach a consensus (10). The Delphi technique is used broadly in the field of health care, as it enables professionals with expert information to identify and prioritize the characteristics of a certain matter on which little knowledge is available. It has certain special characteristics that differentiate it from others, particularly including the anonymity of participants and controlled feedback. In a broad sense, it provides consensus or divergence among experts with respect to a subject on which they are questioned and contributes to identifying trends and expectations. It uses a structured questionnaire for this purpose, prepared and evaluated by an advisory panel and by a study director.

This study used the standard Delphi model, using the conventional basis of a questionnaire, leaving time between the presentation of responses and receiving feedback. Table I shows the process followed. The main goal was not to find consensus but to explore the complexity of the subject proposed, with a definition of interpretations and a suggestion of different and even opposing solutions. This study may be classified as an advisory Delphi study, in which the experts' answers aim to provide assistance and

TABLE I
PHASES OF THE DELPHI PROCESS IN THIS STUDY ACCORDING TO THE FUNCTIONS ASSUMED BY THE ADVISORY PANEL AND THE EXPERT GROUP

Advisory Panel		*Expert Group*
Definition of the study subject and selection of the expert group		
Preparation and delivery of the first questionnaire	First round	Response to the first questionnaire
Analysis of responses to the first questionnaire		
Addition of analysis to the second questionnaire and delivery	Second round	Reading of the second questionnaire, comparison with those given in the first round and response to the second questionnaire
Final statistical analysis of responses to the second questionnaire		
	Conclusions	

support in a decision in vague, uncertain and complex situations. As the case may be, their opinion is a reference for subsequent action.

Study structure

Preparation of the questionnaire

A number of principles were taken into account in its preparation, such as presenting open and closed questions (Likert-type with five options), clear wording with simple language, few questions and the presence of space to allow participants to express their opinions, doubts or other contributions. They were grouped into five categories: a) general presentation of pain treatment among elderly patients; b) knowledge of the subject of pain among elderly persons with or without cognitive deterioration and communication difficulties; c) pain assessment; d) opinions, beliefs and myths regarding pain among the elderly; e) effect of uncertainty with respect to pain among professionals caring for these patients.

Selection of contents

This was carried out on the basis of pain behaviors identified in the bibliography, and those formulated by members of the advisory group with clinical experience. An exhaustive bibliographic search was conducted and two questionnaires were located (11,12), along with several articles specifying the behavior to observe and/or which indicated symptoms not exclusively expressing pain such as loss of cognitive capacity or in basic daily activities (13-15). This information was used for selecting some of the descriptions of behavior.

Finally, 16 affirmative assertions were drawn up in clear, simple language. They included non-verbal behavior, gestural expressions and general changes in everyday life among the persons affected such as, for example, differences in feeding habits, sleep or changes in cognitive capacities. The final inventory was offered for review by five persons from outside this study to assess their comprehensibility. Their suggestions helped to refine grammatical constructions. They also proposed modifications in syntax and presentation, and in the instructions for filling in the survey.

Structure of the questionnaire

The assessment tool consisted of the instructions for answering it, direction of the responsible investigator, instructions for returning it, personal details of the interviewee and the study's different sections. These were sixteen closed questions and three open questions (Table II). The first had to be answered with the Likert-type format with five possible responses (Strongly agree, Agree, Indifferent, Disagree, Strongly disagree). The second aimed to evaluate professionals' everyday practices and their needs regarding the study subject.

Gathering information

In the first round, the questionnaire was sent to members of the expert group, asking them to respond to the open and

TABLE II
ASSERTIONS AND OPEN QUESTIONS OF THE QUESTIONNAIRE IN THE FIRST ROUND OF THE STUDY

Assertions
1. The elderly perceives more pain because they have more time to notice it
2. Pain is a frequent symptom in the elderly. It is inherent to the process of aging
3. Pharmacological treatment of pain, in elderly patients, is effective
4. Pain in the elderly is an exclusively physical symptom
5. Elderly men withstand pain better that elderly women
6. Chronic pain in the elderly is untreatable
7. Pain is a symptom that will increase in line with life expectancy and the increase of chronic and degenerative diseases
8. When pharmacological treatment does not alleviate the pain of an elderly patient, a placebo may be an effective solution
9. As they show a decrease in sensorial capacities (visual, auditory…) the elderly feel painful stimuli less
10. Elderly persons with cognitive impairment or neurodegenerative diseases respond less to sensorial stimuli and they feel painful stimuli less
11. The lack of verbal capacity to express pain in the elderly with cognitive alterations may lead to insufficient treatment
12. Pain can be assessed in the same way in persons who can express it verbally as in those who cannot
13. There are insufficient tools to assess the presence of pain in patients with cognitive impairment and communication difficulties
14. For professionals caring for persons with cognitive deficiencies, not knowing what is wrong with them and the inability to relieve them represents a cause of additional stress
15. The elderly show changes in their nervous system, associated with age, which lead to a reduction in nervous stimulation and so they feel less pain
16. The elderly experience more pain, because it is the only way to feel alive
Open questions
17. In practice, how do you assess pain in the elderly with communication problems and cognitive deficit?
18. How do you think pain should be assessed in the elderly with communication problems and cognitive deficit?
19. Do you assess the possible existence of pain in the presence of behavioral changes in people with cognitive impairment and how do you assess it?

closed questions. Once the answers were obtained, a frequency analysis was carried out and it was re-sent, without the open questions. In this second round, the questionnaire showed how the participants' responses had been distributed in the first round, included specific instructions asking them to note their opinion again as regards the closed questions, and they were asked to send it back to the advisory group. This phase preceded the statistical analysis of all questionnaires received.

Interpretation of results

Responses to the questions were classified into four groups according to the frequency of agreement/disagreement: Unanimity (U), when all those consulted agreed/disagreed; Consensus (C), when this value was higher than 90%; Majority (M), when it was between 66% and 90%; Discrepancy (D), when less than 66% showed agreement/disagreement.

Subjects

The advisory panel

In its composition, four specialists were chosen from the field of psychometric investigation, the creation of Assessment tools, pain treatment or clinical activity among persons with cognitive deficit involving communication difficulties.

Their functions were to give the problem an operative definition, design the study, prepare the reports, select the

members of the expert group, promote and dynamize their participation, review the questionnaire in both rounds, send it and follow up the reminder to fill it in, apply statistical analysis, evaluate the results of both rounds and, finally, describe and interpret the end results.

The expert group

Landeta criteria was used for their selection (16), which defined expert as "the individual whose personal situation and resources enable their positive contribution to achieving the purposes that have led to setting up the Delphi study". This study interpreted the mentioned principle in considering experts to be those professionals who have daily contact with the patients described in the study and care for or treat them. Following this criteria, a selection was made among physicians, psychologists, physical therapists, nurses and nurse assistants who worked in socio-healthcare centers. The persons responsible in the participating centers chose the professionals to form part of this expert group.

The centers

The selection criteria was geographical proximity and included, in its healthcare profile, patients in the socio-health field. Finally, 25 centers were invited to take part, located in the city of Barcelona and its metropolitan area, and in districts of Barcelona, Girona, Lleida and Tarragona.

Statistical analysis

Responses to the questions were described and summarized in relative frequencies and total and accumulated percentages. To facilitate qualitative interpretation of the results of frequencies, an iconographic representation was prepared showing the results classified according to the categories described above. The statistics package used (Microsoft Excel) uses an algorithm to round off decimals, meaning the sums of percentages were not always exact.

Since the goal of the study was not to find consensus among the experts, the theoretical criteria for stopping the process of the Delphi study was the response stability recommendable criteria. The response stability index aims to measure the level of stability between the result of the successive rounds. In order to establish stability of results, the coefficient of variation (υ) was determined, calculated as the standard deviation divided by the mean. Variation of the coefficient of variation (υ_v was calculated as the difference between the coefficients of variation of the first and the second round ($\upsilon_v = \upsilon_{\text{2nd round}} - \upsilon_{\text{1st round}}$). The level of stability chosen as reference was $\upsilon = 0.10$. A variation of the coefficient of variation ≥ 0.10 was considered as indicating low stability.

Spearman's rank correlation coefficient was used to analyze the existence of sub-groups who performed differently to the total panel of experts. The total number of 16 responses was correlated between each group of professionals and also of each group of professionals with the total result of the experts.

RESULTS

Characteristics of the expert group

All the institutions proposed initially agreed to take part in the study. Finally, only 22 (88%) collaborated in the first round and 19 (76%) in the second. Not all the centers had professionals in the selected categories and, as a consequence, there were centers where the number of questionnaires answered was fewer. Furthermore, in the first round, one of the 22 centers sent the five questionnaires answered by professionals in the same category. In the first round, 107 experts took part and 90 in the second (84%).

Demographically, the simple of experts who took part in both rounds was similar by professional typology and was characterized by a large number of women (79%). This proportion varied according to profession. In the group of physicians, there was a larger number of men, although the difference with women was only 6%. In the rest of professional categories, there was a predominance of women (Table III). Mean age ± standard deviation of the total population was 36±8.2 (range 23-60) and was similar in all categories, although age was higher among

TABLE III
POPULATION OF EXPERTS WHO TOOK PART IN BOTH ROUNDS BY GENDER AND PROFESSION

	Men (%)	*Women (%)*	*Total*
Physicians	10 (53)	9 (47)	19
Psychologists	1 (6)	15 (94)	16
Nurses	1 (5)	18 (95)	19
Physical therapists	6 (32)	13 (68)	19
Nurse assistants	1 (6)	16 (94)	17
Total	19 (21)	71 (79)	90

physicians (41±7.2). Mean years of experience among the population was 12±7, with the highest in the case of physicians (16±6.8) and the lowest among psychologists (9±7.9). Years of experience in the field of gerontology were 9±5.4 in the total population. Again, the highest value was found among physicians (10±4.9) and the lowest among psychologists (6±5.5). On analyzing year of experience with persons with cognitive impairment, values were more uniform. Accordingly, for the total population it was 8±5.3, with the highest value in medicine (9±5) and the lowest in psychology (7±5,5).

Responses to questions

Table IV shows the results of the responses after both rounds in the closed questions and the direction of responses. As we can see, no unanimity was achieved in any of them, although consensus was obtained in 6 and majority in 7. Discrepancy was found in three of them. The discrepancies showed differences of opinion on degree and not in a wholly opposing position.

No question produced diametrically opposing responses, regardless of profession or gender. The level of agreement

TABLE IV
RESPONSES BY THE POPULATION OF EXPERTS WHO TOOK PART IN BOTH ROUNDS OF THE STUDY

Statements	*Total*
1. The elderly perceive more pain because they have more time to notice it.	D
2. Pain is a frequent symptom in the elderly. It is inherent to the process of aging	D
3. Pharmacological treatment of pain, in elderly patients, is effective	M (+)
4. Pain in the elderly is an exclusively physical symptom	C (-)
5. Elderly men withstand pain better that elderly women	M (-)
6. Chronic pain in the elderly is untreatable	C (-)
7. Pain is a symptom that will increase in line with life expectancy and the increase of chronic and degenerative diseases	M (+)
8. When pharmacological treatment does not alleviate the pain of an elderly patient, a placebo may be an effective solution	D
9. As they show a decrease in sensorial capacities (visual, auditory…) the elderly feel painful stimuli less	M (-)
10. Elderly persons with cognitive impairment or neurodegenerative diseases respond less to sensorial stimuli and they feel painful stimuli less	M (-)
11. The lack of verbal capacity to express pain in the elderly with cognitive alterations may lead to insufficient treatment	C (+)
12. Pain can be assessed in the same way in persons who can express it verbally as in those who cannot	C (-)
13. There are insufficient tools to assess the presence of pain in patients with cognitive impairment and communication difficulties	C (+)
14. For professionals caring for persons with cognitive deficiencies, not knowing what is wrong with them and the inability to relieve them represents a cause of additional stress	M (+)
15. The elderly show changes in their nervous system, associated with age, which lead to a reduction in nervous stimulation and so they feel less pain	M (-)
16. The elderly experience more pain, because it is the only way to feel alive	C (-)

Key to assertions U (unanimity): everyone consulted agrees/disagrees. C (consent): more than 90% of those consulted agree/disagree. M (majority): between 66% and 90% of those consulted agree/disagree, D (discrepancy): less than 66% agree/disagree. The symbol between parenthesis in the "total" column shows the trend of agreement/disagreement. Accordingly, (+) means agreement with the assertion, while (-) means disagreement.

TABLE V
RESPONSES TO THE QUESTION "IN PRACTICE, HOW DO YOU ASSESS PAIN IN THE ELDERLY WITH COMMUNICATION PROBLEMS AND COGNITIVE IMPAIRMENT?" INCLUDING ONLY FREQUENCY ITEMS EQUAL TO OR ABOVE 5, EQUIVALENT TO 2%

Contributions	*M*	*P*	*E*	*F*	*NA*	*Total by contribution (%)*
Crying or shouting during painful care or procedures	1	1	2	0	1	5 (2)
Painful facial expression during potentially painful care or procedures	0	1	0	1	5	7 (3)
Defensive reaction, when touching, examining, exploring.	5	2	2	6	3	18 (7)
Defensive reaction upon mobilization	5	2	4	7	3	21 (8)
The subject spontaneously and quietly groans or cries	3	3	4	3	4	17 (7)
The subject spontaneously shouts or violently complains	8	4	10	5	7	34 (13)
The subject shows facial expressions of pain	13	9	14	14	4	54 (21)
Sleep alteration	1	1	5	0	1	8 (3)
The subject seeks an analgesic position and/or avoids certain movements	2	0	4	2	1	9 (4)
The subject has reduced or modified their intake of foods	5	2	0	0	4	11 (4)
Changed habitual behavior (regarding ABVD)	10	6	6	4	5	31 (12)
Physical symptoms	1	0	2	2	1	6 (2)
Response to pharmacological treatment	6	0	0	0	0	6 (2)
Asking main caregivers (professionals or family)	3	3	0	1	0	7 (3)
Others	5	4	2	4	3	18 (7)
Total by profession (%)	68 (27)	38 (15)	55 (22)	49 (19)	42 (17)	252 (100)

M: physicians. P: psychologists. E: nursing staff. F: physical therapists. NA: nurse assistants.

was different on analyzing sub-population as regards profession or gender, where consensus became unanimity in some cases. Accordingly, in question 2, the group of nurse assistants showed most agreement (84%) and least disagreement (17%) than the rest of participants. In question 7, there existed discrepancies among the groups. Among physicians, the position was unanimous, while the lowest was found among physical therapists (63%). In question 8, discrepancy was found among all professionals (62% in disagreement). Most disagreement was found among physicians (90%) and nurses (69%) while there was agreement among 45% of nursing assistants and 37% of physical therapists.

In open question 17 (In practice, how do you assess pain in the elderly with communication problems and cognitive impairment?) the 107 experts made 252 contributions, which are classified in Table V. All the professionals made a similar number of contributions. Among those mentioned most frequently were defensive reactions to mobilization (8%), shouting or violent and spontaneous complaints (13%), facial expressions of pain (21%) and changes in behavior in basic everyday activities (12%).

In open question 18 (How do you think we should evaluate pain in the elderly with communication problems and cognitive deficiencies?) contributions are similar to those for question 17, highlighting changes in behavior (13%), contributions of information from professionals and carers (14%), and the need to create tools for helping to assess pain (27%). Table VI summarizes responses to this question.

Finally, Table VII summarizes the responses to question 19 (Do you evaluate the possible existence of pain in the

TABLE VI
RESPONSES TO STATEMENT 18 (HOW DO YOU THINK PAIN IN THE ELDERLY WITH COMMUNICATION PROBLEMS AND COGNITIVE DEFICIENCIES SHOULD BE ASSESSED?)

Contributions	*M*	*P*	*E*	*F*	*NA*	*Total by contribution(%)*
Crying or shouting during potentially painful care or procedure	3	4	3	1	1	12 (12)
Painful facial expression during care or spontaneously	1	0	2	0	0	3 (3)
Physical examination	0	3	2	3	1	9 (9)
Change in behavior (restlessness, aggression, abnormal behavior)	3	1	2	3	4	13 (139
Sleep disorder	0	0	0	0	3	3 (3)
Informin carers	5	1	2	4	2	14 (14)
Assessment of response to pharmacological treatment	1	1	1	1	0	4 (4)
Importance of creating assessment tools	9	6	7	3	2	27 (27)
As stated in item 17	1	2	0	1	4	8 (8)
Others	1	1	3	3	0	8 (8)
Total by population (%)	24 (24)	19 (19)	22 (22)	19 (19)	17 (17)	101 (100)
M: physicians. P: psychologists. E: nursing staff. F: physical therapists. NA: nurse assistants.						

TABLE VII
RESPONSES TO QUESTION 19 (HOW DO YOU ASSESS POSSIBLE PAIN IN THE PRESENCE OF CHANGED BEHAVIOR IN PERSONS WITH COGNITIVE IMPAIRMENT?)

Contribution	*M*	*P*	*E*	*F*	*NA*	*Total by contribution (%)*
Facial expression of pain during care or spontaneously	3	3	1	2	3	12 (12)
Physical examination	10	1	1	4	2	18 (19)
Changes in behavior (restlessness, aggression, abnormal behavior)	5	5	12	7	7	36 (37)
Sleep disorder	0	0	2	0	1	3 (3)
Information from professionals or caregivers	2	1	1	1	0	5 (5)
Assessment of response to treatment	3	1	2	0	1	7 (7)
Change in feeding habits	2	0	0	0	0	2 (2)
As set forth in assertion 17	3	0	2	2	5	12 (12)
Others	1	0	0	1	0	2 (2)
Total by profession (%)	29 (30)	11 (11)	21 (22)	17 (18)	19 (20)	97 (100)

M: : physicians. P: psychologists. E: nursing staff. F: physical therapists. NA: nurse assistants.

presence of changes in behavior in persons with cognitive deficiencies? How do you evaluate the possible existence of pain?). 87% said they evaluated the possible existence of pain in the presence of changes in behavior. The rest of results do not differ from those presented in Tables V and VI.

Level of response stability and differences among professionals

As described in the section *Material and methods,* the stability level chosen was υ= 0.10, while the values of υ ≥ 0.10 were considered as indicating low stability. In this respect, analysis by gender revealed lower values in all cases except question 6 among men (υ= 0.11), 7 among women (υ= 0.13) and 13 in the total population (υ= 0.11).

Analysis by professional group also showed high stability in most of the questions. Psychology and physiotherapy professionals showed a high number of questions where stability was not achieved (n=5). In the total population, low stability was found in question 13 (υ= 0.11); among physicians in 7 (υ=0.13); among psychologists in 3 (υ=0.22), 6 (υ=0.13), 9 (υ=0.12), 11 (υ=0.21) and 12 (υ=0.18); among physical therapists in 3 (υ=0.10), 5 (υ=0.10), 6 (υ=0.14), 13 (υ=0.21) and 15 (υ=0.15). Finally, among nurse assistants, low stability was only found in question 11 (υ=0.15).

Analysis by age also showed considerable stability with differences among the groups. For younger professionals (20-35 years old) low stability values were seen in questions 8 (υ=-0.16) and 13 (υ=0.14); in the intermediate age group (36-50 years old), these values appeared in questions 1 (υ=0.11), 6 (υ=0.12), 9 (υ=0.14), 11 (υ=0.12) and 12 (υ=0.14). This value in the older age group (51-65) showed low stability in questions 2 (υ=-0.30), 3 (υ=0.17), 10 (υ=-0.26), 13 (υ=0.18), 14 (υ=0.10) and 16 (υ=-0.25).

Analysis by years of professional experience did not show significant data in the appearance of low stability values. For the group with 1-5 years they were seen in questions 3 (υ=0.11) and 7 (υ=0.11). For the group with 6-10 years, they affected 11 (υ=0.20) and 12 (υ=0.13); in the group with 11-15 years, 11 (υ=0.12); in the group with 16-20 years, 10 (υ=0.11) and 13 (υ=0.13) and in the group with >20 years, 2 (υ=0.12), 13 (υ=0.11) and 16 (υ=-0.14).

Analysis by years working in the field of gerontology and years caring from persons with dementia showed the existence of a higher number of low stability values among professionals with more than 20 years' experience in these fields. Accordingly, in the case of gerontology, the group with 1-5 years showed lo stability values in questions 3 (υ= 0.11) and 11 (υ= 0.10); in the group with 11-15 years in questions 7 (υ= 0.11) and 13 (υ= 0.16) and in the 16-20 group in questions 4 (υ= 0.11) and 8 (υ= 0.12). However, in the group with >20 years, a low value was seen in questions 2 (υ= 0.42), 7 (υ= 0.26), 12 (υ= 0.13), 13 (υ= 0.57), 14 (υ= 0.35) and 15 (υ= 0.35).

Analysis by years of experience with persons with dementia showed a trend towards an increase in low stability values in line with an increase in years. Accordingly, in the group with 1-5 years, only question 13 had a low value (υ= 0.12), while in the group with 6-10 years, the questions were 6 (υ= 0.10) and 11 (υ= 0.15), in the 11 to 15 group, they were questions 2 (υ= 0.10), 3 (υ= 0.13), 7 (υ= 0.14), 10 (υ= 0.10) and 13 (υ= 0.26). Finally, in the group with >21 years, questions with low response stability were 2 (υ= 0.42), 7 (υ= 0.26), 12 (υ= 0.13), 13 (υ= 0.57), 14 (υ= 0.35) and 15 (υ= 0.35).

Spearman's Rank correlation coefficient provided an analysis of the existence of sub-populations according to professional categories, comparing the results of responses to the first 16 questions. The analysis reported that there existed no differences in the response behavior of the groups analyzed. All values were higher than 0.9, approaching 1, a value that indicates the inexistence of differences between the responses of sub-populations (Table VIII).

DISCUSSION

Despite the difficulties and setbacks that the expert group may have experienced, the percentage of withdrawals throughout the study was acceptable, bearing in mind that values that are to be expected in Delphi studies (17% of experts and 24% of centers). Landeta (16) concluded, after reviewing the studies published, that withdrawal rates usually range between 20% and 30%.

The expert group that collaborated in this studies reflects the demographic distribution of professionals that can be seen socio-health centers and/or residences. Part of this population is young and with few years' professional practice compared with professionals with considerable experience gained over many years of work. The large sub-group of the former is a consequence of creating numerous new jobs in recent years due to the population aging. Furthermore, we should note the high percentage of women who took part in the study (79%) with differences in the different professional groups.

Contributions made by the experts do not differ significantly from the contributions found in the bibliography referring to the subject of pain among the elderly and in persons without communication capacities. Neither were differences found in the type of response (whether consensus or discrepancy of opinion) according to type of profession or gender. Like the studies by Le Baron (17) and Salvarezza (18), the professionals who work daily with the elderly assert that pain in these patients is not an exclu-

TABLE VIII
VALUES OF SPEARMAN'S RANK CORRELATION COEFFICIENT (RS) TO COMPARE BETWEEN PROFESSIONS THE PRESENCE OF PAIN ACCORDING TO ASSERTIONS REGARDING PAIN (N=16)

Compared Dualities	r_s
Total expert group - Physicians	0.966
Total expert group - Psychologists	0.986
Total expert group - Nurses	0.980
Total expert group - Physical therapists	0.979
Total expert group - Nurse assistants	0.950
Physicians - Psychologists	0.956
Physicians - Nurses	0.936
Physicians - Physical therapists	0.945
Physicians - Nurse assistants	0.938
Psychologists - Nurses	0.977
Psychologists - Physical therapists	0.964
Psychologists - Nurse assistants	0.938
Nurses - Physical therapists	0.951
Nurses - Nurse assistants	0.946
Physical therapists - Nurse assistants	0.913

sively physical symptom. Life in its final stage is marked by multiple changes, whether physical, psychological and social, one influencing the others and affecting how pain is integrated into this life stage. The affective component of pain is determined by the subject's background, the significance they ascribe to this pain, the context in which it takes place and functional limitations to their everyday activities and how it will affect their long-term future. All these aspects are known by the professionals who work daily and continuously with elderly patients.

Furthermore, over 90% of participants agreed that pain in elderly patients can be treated, and that they do not feel the pain more as a way of feeling alive. Occasionally, the multiple complaints presented by elderly patients can be assessed by the persons who care for them as a way of demanding attention or as a simple, repetitive way to communicate. Somatic complaints may hide depressive symptoms or disorders, leading to improper diagnoses. This may be one of the reasons why the same professionals who reach consensus in asserting that pain among the elderly is treatable, disagree on how it should be treated, especially in the use of placebos in contrast with other drug treatments that have not achieved the desired effects.

Mostly, the expert group assert that the elderly do not feel less pain than the rest of the population, but there currently exists no studies in this respect. The investigations carried out provide us with biased and sometimes contradictory information depending on the methodology used (18). Consensus was also found with respect to the statement that pain is a symptom that will increase by prolonging life expectancy and the increase in chronic and degenerative diseases, a consensus that is strengthened by the studies carried out by Epps (19) who reported that 80% of elderly persons have some chronic illness that causes pain. The same experts show discrepancies as to whether pain is a frequent symptom among the elderly and inherent to the aging process. This discrepancy could be interpreted as meaning the illnesses constitute the reason that causes the pain, but aging can occur without illness and in this case without suffering pain.

With respect to pain in elderly persons with cognitive deficit and communication difficulties, the experts show consensus in unanimity with respect to the fact that pain in these patients may not be sufficiently treated, as they do not express their pain explicitly. This data coincides with Horgas and Tsai (20), who concluded that patients that cannot communicate their pain receive less analgesia. Marzinski (21) also asserted, like the majority of the experts who took part in this investigation, that persons with cognitive deficit and difficulties to communicate their pain do not feel less pain due to suffering from neurodegenerative processes, but rather they do not communicate it. In this respect, in some of them, such as Alzheimer's disease and frontotemporal dementia, there exists a reduction in the affective component, while in others, such as vascular dementia, there is an increase (22).

Although pain in these patients cannot be assessed with the same tools used for patients who can communicate their pain, professionals are not aware of the existence of validated scales that can be used for this purpose and state that this need has not yet been covered. This same assertion is one of the conclusions reported by Weiner (23). This the case despite the existence of validated scales that could be used in such situations (4).

The expert group that took part in our study coincides with the indications proposed by different experts (24-26). They report that they assess pain in the elderly with cognitive deficit by observing changes in conduct and behavior and especially during activities or care carried out on a daily basis. Other methods proposed are the contributions that professionals or carers who know them may make, response to treatment with drugs or the patient's physical exploration. This assertion by the professionals themselves

on how they assess pain in persons without communication capacities and that 87% of professionals bear in mind the possibility that patients suffer pain before changes of their behavior, contrast with the survey carried out by Fisher-Morris and Gellatly (27) who confirmed that none of the professionals interviewed identified pain in these patients by means of non-verbal techniques. Possibly, the fact that our questionnaire focuses exclusively on the subject of pain and its assessment in persons without communication capacities, may have influenced the professionals' response.

The professionals who provide care more directly over more time (nurses and nurse assistants) for persons with cognitive deficit show a slightly higher score regarding the fact that working with these patients and not knowing what is wrong with them and being unable offer relief for them creates a cause of additional stress. Opinions of experts who collaborated in the study remained stable in the two rounds, registering no changes nor increasing the consensus of their responses. Neither were there differences in how they responded according to the professional community they belonged to, despite the fact that frequencies may show certain percentual differences. This data indicates a major coincidence in considering geriatric pain and related behavior for using it in assessing patients without verbal communication. This is the study's most important discovery, as it may allow their use to create assessment tools with significant validity of content.

In conclusion, this study shows that there exists concern among professionals who care for elderly patients as regards detecting pain and its treatment, especially in those with communication difficulties. This awareness is more marked among those who care for them more directly. The study has allowed us to identify which types of behavior contribute to health professionals' identification of the presence of pain and enabling them to contribute to the creation of tools to assess it objectively. Their use, once their validity and reliability has been ascertained, adapted to patients' reality and used systematically, could contribute to improving the perception of pain management among elderly persons.

CONFLICT OF INTERESTS

The authors declare they have no conflict of interests.

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