

Bibliographic review of the evaluation methods of the clinical interview in health sciences

Revisión bibliográfica de los métodos de evaluación de la entrevista clínica en ciencias de la salud

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Abstract: the clinical interview is considered of great importance in the education of health professionals so that they have the necessary skills to successfully face the therapist-patient relationship. The objectives of this exploratory bibliographical review consist of finding out if, in the current literature, there are written evaluation methods that allow measuring the clinical interview in Physiotherapy and in other Health Sciences careers such as Medicine or Nursing. And as a second objective, if the evaluation methods used in each of them coincide, observing, in addition, the possible existence or not of inequalities between them. The existing information in the PubMed, Cochrane, PEDro, Google Scholar or ScienceDirect search engines, among others, was reviewed. Studies carried out between the years 2000 and 2020 were used. Finally, the inclusion and exclusion criteria were applied through the PRISMA Declaration. A total of 9 works were found that express the existence of questionnaires or scales in the aforementioned degrees (Medicine, Nursing and Physiotherapy) and allow us to see the differences between some methods and others. In addition, the PRISMA scale provides quality information that allows us to observe the similarities and differences in terms of the content of the articles. There is evidence available in the different disciplines and in all of them there is a coincidence in terms of the questionnaires or scales used. More future research is needed in this field, especially in Physiotherapy.

Keywords: interview; clinical skills; public health students; evaluation methods.

Resumen: la entrevista clínica se considera de gran importancia en la educación de los profesionales de la salud para que estos posean las habilidades necesarias para afrontar con éxito la relación terapeuta-paciente. Los objetivos de esta revisión bibliográfica exploratoria consisten en averiguar si, en la literatura actual, existen métodos de evaluación de forma escrita que permitan medir la entrevista clínica en Fisioterapia y en otras carreras de Ciencias de la Salud como Medicina o Enfermería. Y como segundo objetivo, si coinciden los métodos de evaluación utilizados en cada una de ellas, observando, además, la posible existencia o no desigualdades entre las mismas. Se revisó la información existente en los buscadores PubMed, Cochrane, PEDro, Google Académico o ScienceDirect, entre otros. Se utilizaron estudios realizados entre los años 2000 y 2020. Finalmente se aplicaron los criterios de inclusión y exclusión mediante la Declaración PRISMA. Se encontraron un total de 9 trabajos que expresan la existencia de cuestionarios o escalas en las titulaciones anteriormente referidas (Medicina, Enfermería y Fisioterapia) y nos permiten ver las diferencias entre unos métodos y otros. Además, la escala PRISMA aporta información de calidad que nos permite observar las similitudes y diferencias en cuanto al contenido de los artículos. Existe evidencia disponible en las distintas disciplinas y en todas ellas existe una coincidencia en cuanto a

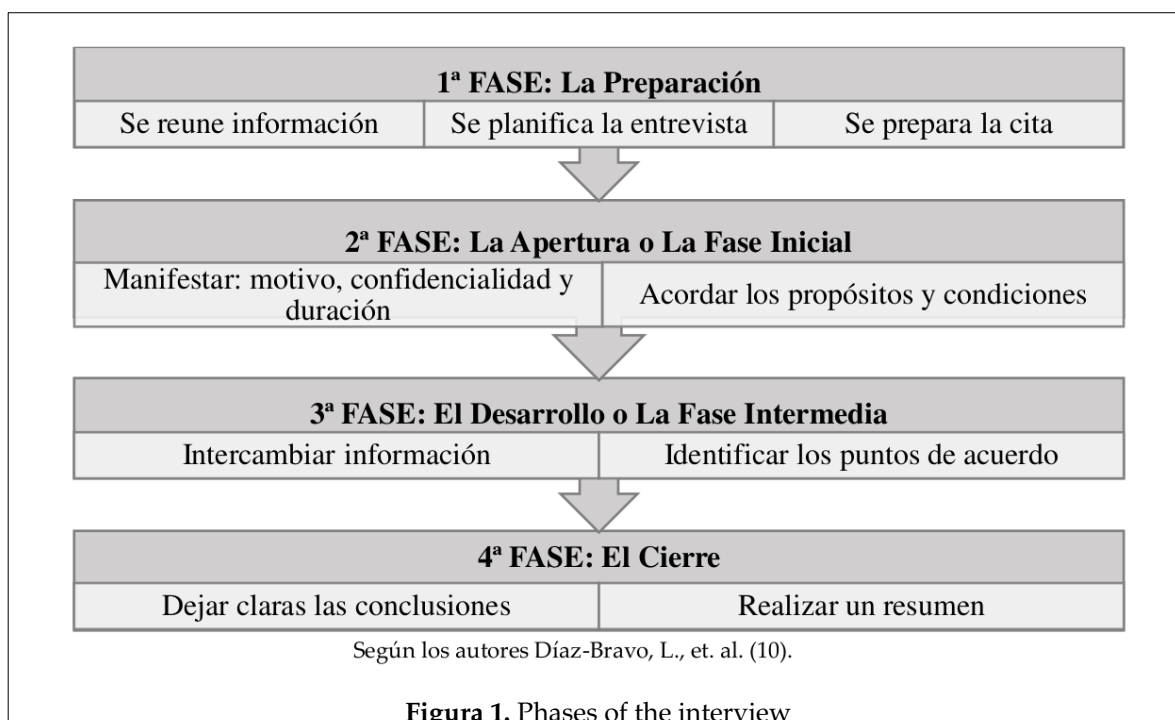
los cuestionarios o escalas utilizados. Se necesita mayor investigación futura en este campo, sobre todo en Fisioterapia.

Palabras clave: entrevista; habilidades clínicas; estudiantes de salud pública; métodos de evaluación.

1. Introduction

Over the years, in Health Sciences careers, it has been shown that the therapist-patient relationship is susceptible to improvement. Said relationship begins with the clinical interview, which is why it is considered of great importance to train health professionals in scientific-technical knowledge and in communication skills to successfully face the therapist-patient relationship (1-3).

Each author defines the clinical interview differently and all the descriptions are correct, so it can be concluded that achieving a complete and unique definition of this concept is highly complex (4). According to Díaz-Bravo or Pades-Jiménez, three types of interview can be distinguished: structured or focused, semi-structured, and unstructured or free (4-5). Each type of interview has its peculiarities, but there are certain development points that are homogeneous, such as those expressed in figure 1.



The term communication appears within the interview, which is a two-way interpersonal process that allows relationships between people and, furthermore, for health professionals it is an essential skill (6-8). Along with the term communication, there are also communication skills, which are essential for teamwork and the best relationship with other health professionals (6, 8). Focusing on communication skills, they have a series of sections for their better understanding, which are: context, listening, comprehension, strategy, and general summary. All these sections with their different subsections will allow us to measure and take into account different points of view, ranging from the professional to the patient and the entire environment that surrounds them, when the clinical interview takes place (3, 9, 10-11). As training in this aspect of health professionals is important, this is where the evaluation methods of the clinical interview should be included. This evaluation process is one of the most complicated tasks. The instruments used for this must be of

optimum quality, to ensure valid and reliable evidence, which will help to improve and successfully develop the teaching and learning process (12).

Taking into account the above, the evaluation and learning methods that have been traditionally developed in practical clinical aspects in Health Sciences are rubrics, one of the most used (12), reflective memory (13), seminars and debates, (13-14), portfolio (13, 15), medical simulation (15), audio and video recordings (15), problem-based or peer learning (15-16), OSCE/OSCE (17), sessions role-playing and group feedback or feedback (18), clinical guidelines and scales or questionnaires (14, 19-20). However, the practice and teaching of an aspect as important as the clinical interview must also be correctly evaluated through communication skills. Therefore, the general objective of the work has been to determine the existence of scientific literature on the evaluation methods of the clinical interview in the field of Health Sciences, and as more specific objectives, to find out if there are methods of evaluation in the scientific literature. written evaluation that allow us to measure the clinical interview in Health Sciences (those related to scales and questionnaires), check if these evaluation methods that are used coincide in Medicine, Nursing and Physiotherapy and verify the existence or not of inequalities in this area.

2. Methods

Design (type of study)

This is an exploratory bibliographic review (21). To obtain the information on the evaluation methods of the clinical interview, a review of previous studies was carried out. Exploratory reviews make it possible to synthesize existing evidence regarding a health topic, incorporating different study designs, interventions, and impact measures in order to generate new hypotheses, lines of research, or propose more appropriate work methods for future research. Articles published from the year 2000 to 2020, including both years, were included to consult what was the progress throughout history regarding this topic. In addition, data obtained in English and Spanish were used.

search strategy

The databases consulted were PubMed, the Cochrane Library, the PEDro databases, Google Scholar, and ScienceDirect; the social networking site for scientists and researchers ResearchGate, the Scopus database and the ELSEVIER publishing house. Finally, only results of interest were obtained in Google Scholar, Pubmed and ScienceDirect.

The descriptors that were used in these electronic databases were chosen according to the objectives that were proposed with this work. Therefore, MESH descriptors such as interview, clinical skills, public health students, medical students, nursing students, physiotherapists, evaluation methodologies, physician, nursing, physical therapist were used. The descriptors were searched in Spanish and English. The Boolean operators used depended on the search situation and the consulted database, "AND" and "OR", to combine the terms with each other. The inclusion and exclusion criteria used for the selection of articles are described in Table 1. It should be noted in the inclusion criteria that they were focused on the areas of nursing, medicine and physiotherapy, excluding others in the health sciences. And in the exclusion criteria it is noted that the existing reviews and meta-analyses were excluded due to the interest in selecting experimental, quantitative or qualitative, observational studies and even final degree projects, to review the experience in learning and evaluation situations.

Table 1: Graphical representation of the inclusion and exclusion methods of the study.

Métodos de inclusión	Métodos de exclusión
Estudios cualitativos y cuantitativos publicados.	Estudios de tipo metaanálisis y revisiones.
Trabajos de Fin de Título de otras universidades y tesis.	Guías clínicas.
Aquellos estudios que fuesen referentes a los siguientes grados de Medicina, Enfermería y Fisioterapia (Ciencias de la Salud).	Aquellos estudios cuya publicación fuese anterior al año 2000.
Estudios que se encuentran en el rango de tiempo entre 2000-2020.	Aquellos estudios que no tuviesen como idioma en inglés y español.
Estudios que estuviesen en inglés o español.	Estudios que no estuviesen relacionados con métodos de evaluación escrita (ECOES, OSCE, etc.).
Todos aquellos artículos referentes a métodos de evaluación escrita (cuestionarios o escalas).	

Zotero was used as a bibliographic manager to support the organization of the articles that were selected and that allowed the elimination of duplicate elements found in the different search methodologies. Everything described above is represented in the flowchart shown in Figure 2.

Finally, after applying the inclusion and exclusion criteria, 9 articles were obtained for analysis (Table 2). Consequently, the included studies are all Spanish-language.

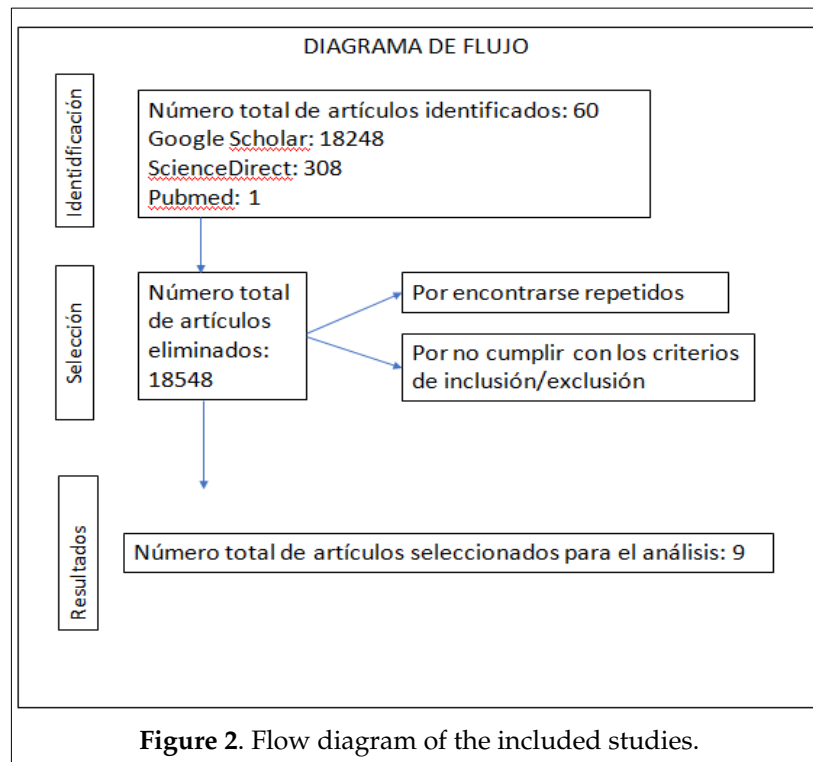


Table 2. Description of the studies included in the bibliographic review (all the studies obtained from Google Scholar).

Authors and reference	Year	Article name	Country	Database	Type of study
Ruiz Moral et al, (29)	2001	Validity and reliability of an instrument for the assessment of the clinical interview in family medicine resident physicians: the GATHARES questionnaire.	Spain	Google scholar	Observational descriptive study for the validation of an instrument
Canovaca Vega (23)	2010	Communication profile of the Primary Care physician in demand consultations: validation of a questionnaire.	Spain	Google scholar	Observational and cross-sectional study, validation of a questionnaire
Gavilán Moral et al, (24)	2010	Assessment of the patient-centered clinical relationship: analysis of the psychometric properties of the ICCAT scale.	Spain	Google scholar	Observational study and validation of an instrument
Salazar-Blanco et al, (25)	2014	Assessment of communication skills in the clinical interview of last-year medical students at the University of Antioquia, through the CICAA scale.	Colombia	Google scholar	prospective descriptive study
Bitran et al, (26)	2015	CEACLIN, an instrument in Spanish to identify clinical learning strategies for medical students. Development and validation.	Chili	Google scholar	Qualitative study of development and validation of an instrument
Montull Morer, (28)	2015	Learning basic communication skills in Physiotherapy: a training proposal using the video and the simulated patient in the clinical interview.	Spain	Google scholar	Descriptive observational study
Quispe Cruz, (27)	2016	Assessment of communication skills in the clinical interview of medical interns at Hospital Goyeneche, through the CICAA Scale.	Peru	Google scholar	Descriptive, observational study, according to Canales
Valverde Bolivar, (1)	2016	Communication profile and patient-centered approach of Family and Community Medicine tutors and residents in Primary Care consultations.	Spain	Google scholar	Observational and descriptive multicenter study
Calderon et al, (19)	2018	Evaluation of approaches to clinical learning through CEACLIN: Results in medical students at a Chilean university.	Chile	Google scholar	Qualitative, non-experimental, cross-sectional and descriptive study

The selected studies were analyzed using the PRISMA statement created from the QUOROM statement in July 2009 as an extension and update of the latter . Its authors point out that PRISMA incorporates several novel conceptual and methodological aspects related to the methodology of systematic reviews that have emerged in recent years. It has a broader application than its predecessor QUOROM, since it is not limited only to meta-analyses or randomized clinical trials, but is also useful for reviews of other types of studies (22). By extracting the information through the analysis with the PRISMA statement (22), information has been obtained at a general level to make a comparison between the data that each of the studies have or not. These data have allowed us to know the strengths and deficiencies of each of the studies.

3. Results

A total of 25,199 results were obtained and 9 studies were selected for review after applying the filters and inclusion and exclusion criteria mentioned above. The types of studies that were selected were mostly observational and instrument validation studies, although descriptive and qualitative studies were also found.

Methodological quality analysis (PRISMA Statement)

Following the PRISMA (22), to assess the methodological quality of the studies, it was possible to appreciate that all the articles presented the title section and that most of them had the abstract section present except for two of them (1, 23). although in some of them in which the abstract was present it was not in a structured way (general typology: introduction, methods, results and conclusion). In turn, 5 of the 9 articles (19, 24-27) did not present justification for the study, but they did agree that they all spoke of the objectives they wanted to achieve with the type of work they were doing and in their writing.

Regarding the methods, it was possible to compare that all the articles presented many differences between them in terms of what each one contains in the different sections evaluated by PRISMA, but it is considered important to highlight that most except one (1) did not present the Search criteria (in which the electronic search strategy is presented, in at least one database, including the limits used so that it can be reproduced), while in the data extraction process section, all They are positive results. The latter that has been described also occurs in the criterion of synthesis of results within the methodology section. On the other hand, in the summary measures section, in the article by Bitran M. et al. (26) and additional analyzes in the article by Montull Morer (28) there is a similarity since all the others were positive except both named. In addition, the results section presents quite a few differences except in the results synthesis section (in which the results of the meta-analyses performed must be presented, including the confidence intervals and consistency measures).

Finally, the discussion is present in each of them while the limitations, conclusion and financing sections have many differences between articles. The conclusion is included in all the articles, although it may not always be found as a specific conclusion section, but rather within the discussion, as is the case with the limitations found in all but the article by Ruiz Moral R et al. (29). To see the results of the PRISMA scale, Table 3 can be viewed, which shows the differences that have been written previously.

Table 3 : Representation of the data obtained through the PRISMA statement.

PRISM GUIDE	References #	29	23	24	25	26	28	27	1	19
Qualification	Qualification	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Summary	Structured summary	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes
Introduction	Justification	Yes	Yes	No	No	No	Yes	No	Yes	No
	Goals	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Methods	Protocol and registration	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Eligibility criteria	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
	Information sources	No	Yes	No	No	Yes	Yes	No	Yes	No
	Search	No	No	No	No	No	No	No	Yes	No
	Selection of studies	No	Yes	No	No	No	No	Yes	Yes	No
	Data extraction process	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Data list	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
	Risk of bias in individual studies	No	Yes	Yes	No	Yes	No	Yes	Yes	No
	Summary measures	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
	Summary of results	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Risk of bias between studies	No	Yes	Yes	No	Yes	No	Yes	Yes	No
	Additional analyzes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Results	Selection of studies	No	No	Yes	No	Yes	No	No	No	Yes
	Study characteristics	No	No	No	Yes	Yes	Yes	No	No	Yes
	Risk of bias in studies	No	Yes	Yes	No	Yes	No	Yes	Yes	No
	Results of individual studies	No	No	Yes	No	No	No	Yes	Yes	No
	Synthesis of the results	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Risk of bias between studies	No	Yes	Yes	No	Yes	No	Yes	Yes	No
	Additional analyzes	No	No	Yes	Yes	No	No	Yes	Yes	Yes
Discussion	Summary of the evidence	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Limitations	Limitations	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Conclusions	Conclusions	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Financing	Financing	No	No	Yes	No	Yes	No	No	No	Yes

descriptive analysis

The studies that have been consulted describe evaluation questionnaires such as the Clinical Learning Strategies Questionnaire (CEACLIN), Connect, Identify, Learn, Agree and Help (CICAA), Evaluation of the communication skills of family doctors in training (GATHA and its different modalities) and Motivation towards Learning and Execution (MAPE 2), which are used in the area of Health Sciences. Different types of classifications have been seen according to careers (Medicine, Nursing and Physiotherapy) (1, 23-30) according to sex (19) or other types of modalities such as years of study, nationality, among others (16, 22, 31 -32). A lot of variation is also observed in terms of the amount of sample between the different types of study. Most of them are observational and many agree that they are a study for the validation of a questionnaire.

Bitran et al. (26) carried out a qualitative CEACLIN study for the development and validation of an instrument administered to 336 medical students from a Chilean university who were in their fourth to sixth year during the second semester of 2013, obtaining an instrument final of 48 items that describe strategies for learning the clinic (33). The results ranged from 1.5 to 3.7 on a 4-point scale (where 1 represents almost never and where 4 represents almost always). In addition, the response rate for the items exceeded 99%. All the analyzes indicated that the CEACLIN is highly reliable and, from there, 11 types of factors were taken into account: autonomy (Factor 1), solving doubts and problems (Factor 2), searching and organizing information (Factor 3), proactivity (Factor 4), turn to others (Factor 5), attend to emotions (Factor 6), look for what is reliable (Factor 7), escape from stress (Factor 8), face stress (Factor 9), motivation (Factor 10) and postpone the personal (Factor 11).

Calderón et al. (19) in their study on CEACLIN worked with a quantitative approach, with a non-experimental, cross-sectional and descriptive design. These authors invited medical students from the Pontificia Universidad Católica de Chile, who in 2012 were in their fourth, fifth, and sixth year of medicine, to take part in the study. Of a total of 358 students, 336 participated (196 men and 140 women). This participation was done voluntarily and anonymously (only the year of study, gender and city of origin was requested), and with a 48-item questionnaire that was answered with a 4-point Likert-type scale, which was passed in school day and lasted 10 minutes. In the evaluation of the results, this study, unlike the previous one, repeats the factors that have already been mentioned above together and named as factors or strategies and are expressed by the frequency with which they were used by the students. In addition, an analysis was made by sex that showed significant differences in seven of the 11 factors and by year of studies, presenting significant differences in five of the 11 CEACLIN factors, and finally, a cluster analysis was carried out that resulted in the identification of two groups of students in relation to the strategies that were used (19).

In his cross-sectional observational study to validate a questionnaire (GATHA Questionnaire), Canovaca Vega (23) conducted interviews (34) with real patients who attended the Primary Care clinic and who met certain selection requirements. A simple random sample of 23 doctors was chosen, among the Primary Care doctors of the province of Córdoba who were videotaped one day of the week randomly and without prior notice, from which 2 hours of recording were obtained from each one, which guaranteed a minimum of 15 interviews (of which 5 could be discarded due to technical problems or selection criteria) and whether they were valid or not, was the decision of a different and independent investigator from the study observers. The first two or three recordings were excluded to avoid possible bias and a total of 230 interviews remained, each of which was reviewed 2-3 times (23). Reliability (23, 35), stability or reproducibility (23, 36), validity (23, 37) and quality control of the video recordings (23, 38) were analyzed. In addition, in terms of the results, it is stated that the interviewees were between the ages of 36 and 53 and of the 23 participants, 19 were men and 4 women, who had an average age of working in Primary Care of about 12 years (of which 73.9% had MIR training and 69.6% specific training in communication). For observer

training, a sample of 10 gold standard interviews was made with GATHA-RES with 27 items. Of the remaining 32 items, 13 factors were obtained: anamnesis (factor 1 items 12, 13 and 14), respect (factor 2 items 9, 41 and 43), information (factor 3 items 24 and 42), empathy (factor 4 items 4, 5 and 32), closeness (factor 5 items 2, 3 and 44), biopsychosocial (factor 6 items 20 and 22), patient care (factor 7 items 8, 15, 28 and 31), informative skills (factor 8 items 34 and 35), miscellaneous (factor 9 items 11 and 25), agreement (factor 10 items 26 and 27), patient-centered method (factor 11 items 16, 17, 18 and 32), organization (factor 12 items 39 and 1) and cordiality-closeness (factor 13 item 29). Following what was published in the validation of the GATHA-RES, 6 items were selected out of the 32 that make up the GATHA REAL, which reflect the degree to which the physician is "patient-focused"(23).

Valverde Bolívar (1) carried out a multicenter descriptive observational study in teaching health centers in 4 Andalusian provinces (Almería, Granada, Huelva and Jaén) during the months of February 2011 to May 2012, obtaining a final sample of 119 professionals who participated making a total of 436 valid recordings. Of the total number of health professionals, 60 were residents with a total of 229 interviews. The main investigator randomly selected 4 video recordings of each professional (excluding the first consultation) to be analyzed using the CICAA questionnaire by people unrelated to the interview (1, 39) and trained in its use.

Ruiz Moral et al. (29) in their study on the GATHA-RES Questionnaire of descriptive observational type and validation of a measurement instrument, made a videotape to 25 residents of the Teaching Unit of Córdoba with 3 standardized patients, obtaining 75 questions, 7 of which gave problems due to sound, these were evaluated by 2 independent evaluators both involved in teaching the clinical interview (29, 40) and who had been previously trained in the use of GATHA-BASE. Each interview was reviewed about 3 times. We proceeded to assess the interobserver reliability and internal consistency of the resulting instrument called GATHA-RES. A final scale of 27 items was obtained from which the experts chose 13 items that were considered to reflect the degree to which "the doctor is patient-centered."

Gavilán Moral et al. (24) in their study of the descriptive observational CICAA scale for the validation of a questionnaire, studied 2 subsamples: one heterogeneous (made up of patients and different professionals) and one homogeneous. Both were randomly selected with video recordings, clinical interviews and previous studies. Two observers were trained in a practical training in the use of the scale that consisted of 29 items grouped into 4 tasks that give the questionnaire its name.

Salazar-Blanco et al. (25) in their study on the descriptive prospective CICAA scale in the period between June and October 2011, evaluated 199 undergraduate medicine students from the University of Antioquia and selected 92 subjects per sample. random. It is once again observed that this scale is divided into 4 tasks and variables such as gender and the semester in which the student is enrolled were analyzed. Half of these participants were women, and it should also be noted that task 2 had the lowest frequency of grades acceptable to both observers. The number of women who had an acceptable global rating was higher, although in several tasks the difference between men and women was not statistically significant.

Quispe Cruz (27) carried out his descriptive, observational study of the CICAA scale in the Emergency service of the Goyeneche Hospital, in the Medicine, Gynecology and Obstetrics, Pediatrics and Surgery offices, during the months of February and March 2016 and his sample It was made up of medical interns. Two observers were given practical training in the use of the scale. It was considered that they were trained when they had reached an adequate calibration with respect to the expert when the differences in the assessment of each item were not greater than 1 on the scale from 0 to 2 of which ICCAT consists.

Finally, Montull Morer (28) in his mixed study (qualitative and quantitative) of an observational descriptive nature uses a type of methodology to approach the analysis of the reality of the problem studied (28, 41), based on the choice of a paradigm qualitative and in the research-action method. The research has focused on Physiotherapy students in the third and last year of the Physiotherapy Diploma, having students from the 2007-2008 and 2010-2011 academic year, who were selected depending on the training cycle they were part of (Cycle I or Cycle II). In this study, the MAPE 2 scale and the CICAA scale are represented (28).

4. Discussion

After analyzing the results, it is shown that there are written methods of clinical interview analysis in the literature, highlighting the CEACLIN, GHATA, CICAA and MAPE 2 scales, but with some considerations in their use and area of application.

Those articles that deal with CEACLIN (19, 26) cover the years 2012 and 2013, while those that deal with the ICCAT Questionnaire (1, 24-25, 27-28) cover the years 2007 to 2013 and 2016. On the other hand, those who speak of GATHA and its variants (1, 23-24, 29) include the years 1997 and 1998 -the article by Canovaca Vega (23) and in 2001, 2009, 2010, 2011 and 2012. In addition, there were articles that named other scales such as MAPE 2 scale and ICCAT-Decision (ICCAT-D) (1, 28).

The articles that talk about CEACLIN such as Bitran et al. (26) describe that their sample is made up of a panel of experts of 42 students and 49 professors from 15 medical schools and the questionnaire was administered to 336 students, while in the article by Calderón et al. (19) it is described that from the sample of a total of 358 students, 336 students finally participated (196 men and 140 women). The difference between them is that the first (26) tells us that there are 336 students who are men and women because it is one of the inclusion criteria that the article talks about, but it does not indicate the number of each of them as is done in the second (19). On the other hand, in one of them (26) the sample is mentioned, but no comparisons are made of the results obtained between men and women, since they do not know how many samples there are for each one, while in the other, (19) This difference is made by sex and, in addition, by years of study and by clusters. Together, these two articles or works are analyzed in students who are between the fourth and sixth year of Medicine with the difference that in one (26) the work is carried out between the years 2012 and 2013 to students of the second semester and in the other (19) was carried out in 2012. In addition, both talk about the 11 factors that contain the CEACLIN and are produced with students from the Catholic University of Chile.

The article by Bitran et al. (26) deals with a validation study of an instrument and names the Delphi analysis, unlike the study by Calderón et al. (19) that it is an evaluation of the CEACLIN study that does not contain it. In the same way, it should be noted that in both the 4-point Likert scale is pronounced and that they mention the limitations of the study, but that only in the second article that has been mentioned is there talk about the estimation time of the consultation that describes that is 10 minutes and about the signing of the informed consent.

In the articles that refer to ICCAT, such as the one by Montull Morer (28), several descriptions of the sample were made, but the one that could be clearest was chosen, obtaining that there were 57 students (Cycle I) and 56 students (Cycle II), in the article by Valverde Bolívar (1) there is a total of 119 professionals (with a total of 436 valid interviews, of the total number of health professionals, 60 were residents with a total of 229 interviews), and the work of Gavilán Moral et al. to the. (24) tells that 2 study subsamples were studied, a heterogeneous one made up of patients (real and standardized with chronic or acute health problems) (24, 42-43) and different professionals (24, 44-45) (Primary Care nurses, family and hospital care doctors and medical residents) and homogeneous (chronic patients, family doctor and Primary Care nurses). Furthermore, in the article by Salazar-Blanco et al. (25) describes a target sample of 199 students and a selection of 92 subjects, with a final selection of 78 students and, finally, Quispe Cruz et al.(27) in their article describes a

sample of 62 medical interns. In four of the named studies (24-25, 27-28) the use of two observers was found while there was only one of them (1) in which they did not talk about it. In the same way, the idea of informed consent is indicated in four of the articles (1, 25, 27-28), contrary to what happens with the article by Gavilán Moral et al. (24) in which it is not talk about it.

In the same way, it should be noted that Montull Morer (28) talks about the average score he obtains with ICCAT, which is a total of 19.40 points when observer #1 (28, 46-47) made the evaluation and 20.3 when the evaluation was carried out by observer #2 (28, 48-49) and this will increase after carrying out the Formative Proposal I (with results of 43 and 43) and with Cycle II (with results of 52 and 53); Another of the authors in his article (1) obtains that the average score is 21.43 ± 5.91 points (and the difference by tasks). Similarly, in another study (24), it is described that the global average score of the scale was 12.77 out of a maximum of 58 points, different from the results obtained from the article by Quispe Cruz et al. (27) who says that the overall mean score of the scale is 24.68 ± 15.31 in the first assessment and 25.95 ± 15.69 in the second assessment, while Salazar-Blanco et al. (25) do not provide data on the above.

Regarding the mean duration of application, Valverde Bolívar (1) describes that the mean duration in consultations with the CICAA scale is about 8.8 minutes with a standard deviation of 3.96 minutes and a median of 8 minutes, describing how it can vary depending on the type of professional, the Teaching Unit, the doctor's age, the doctor's patient-focused profile, the degree of patient participation in decision-making, depending on the type of patient's problem and depending on the type of of the patient's visit (50) while in another of the articles (25), reference is made to the total consultation time and the time dedicated to the physical examination of the patient, comparing the inmates who were divided into two groups but not quantitatively and, on the contrary, there are other authors (24, 27-28), who do not specify this section.

On the other hand, differences are observed between articles, one of them (28) expresses the results talking about the differences between the control group and the intervention group (CG and GI, respectively), while other authors (1) name the results making differentiations by sex, teaching unit and age of the doctor; o differentiate them by student groups and by sex (25); or mention a differentiation by sex when they talk about the results in the discussion (27), while, in their article Gavilán Moral et al. (24), at first they differentiate by subsamples (health professionals, real patients and standardized patients) but they do not talk about the results obtained in each one of them.

Finally, regarding the CICAA scale, it must be taken into account that the students who missed the scale varied in terms of career, knowing that Montull Morer (28) carried out his work with students in the third and last year of the Diploma of Physiotherapy at the Rovira i Virgili University, Valverde Bolívar (1) studied in teaching health centers in four provinces of Andalusia (Almería, Granada, Huelva and Jaén) of Family Medicine, Salazar-Blanco et al. (25) carried out a study with undergraduate Medicine students from the University of Antioquia and Quispe Cruz (27) carried out his work in the Emergency service of Hospital III Goyeneche (Medicine).

The articles that talk about GATHA are the one by Canovaca Vega (23) that refer to the GATHA BASE questionnaire, the GATHA-RES or GATHA-ESP questionnaire; that of Valverde Bolívar(1) who names the GATHA questionnaire; Ruiz Moral et al. (29) who talk about the GATHA-RES and GATHA-BASE questionnaire and that of Gavilán Moral et al. (24) that mention the GATHA-RES questionnaire.

The studies were conducted at different institutions. Among them is that Canovaca Vega (23) studied interviews with real patients who went to the Primary Care Physicians of Health Centers in the province of Córdoba for consultation, Valverde Bolívar (1) studied in teaching health centers from four provinces of Andalusia (Almería, Granada, Huelva and Jaén), Ruiz Moral et al. (19),

investigated at the Family and Community Medicine Teaching Unit of Córdoba and Gavilán Moral et al. (24) talk about two samples but do not specify which institution they belong to.

Another aspect to highlight is that the study by Gavilán Moral et al. (24) describes the use of two observers, as in the study by Ruiz Moral et al. (29), while in those by Canovaca Vega (23) and Valverde Bolívar (1) does not describe any external participation other than that of the professionals who participate and the institution itself where the study is produced.

Regarding the people who participate in the study, we see a difference between studies, since, in the study by Canovaca Vega (23), a sample size of 190 interviews was obtained and as a sampling technique a sample of 23 doctors and 30 interviews was obtained, while in Valverde Bolívar (1) there are 119 professionals; or in the study by Ruiz Moral et al. (29), 25 Family and Community Medicine resident physicians are studied and in the study by Gavilán Moral et al. (24) there is a sample with 2 subsamples: one heterogeneous and the other homogeneous (which have already been discussed above). Add that in the article by Ruiz Moral et al. (29), the consultation time with this scale was limited to about 15 minutes, being the only article of the previous ones in which there is something about the duration of the consultation.

On the other hand, taking into account the sample used in each of them, it should be noted that the study by Canovaca Vega (23) was carried out on medical students, as was the study by Valverde Bolívar (1) and Ruiz Moral et al. (29), while the study by Gavilán Moral et al. (24) in addition to students or professionals in the field of Medicine, was conducted in students or professionals in the field of Nursing. Similarly, Gavilán Moral et al. (24) talks about a series of limitations while in the other articles there are no data on this section. It should be noted that of all those selected, the only article found in the Physiotherapy area is the article by Montull Morer (28), in which the MAPE 2 scale is named. In this same work, two scales are described: the previous together with the ICCAT (which has already been discussed) and a comparison is made between them, obtaining that in both the students of both the control group (CG) and the intervention group (IG), always obtained favorable results (28).

This exploratory systematic review has a series of limitations that must be taken into account, such as the low number of articles found in the field of Physiotherapy and the small amount found on the specific evaluation methods of the scales or questionnaires in the different fields. Another limitation could be the little or no amount of information found in search engines such as PubMed, PEDro, Scopus or Cochrane, among others, since, as previously mentioned, only documents were found in Google Scholar and ScienceDirect. It should be noted that the largest amount of literature found on written evaluation methods is published in Spanish-speaking journals, which is why the articles included were all in that language. It is also necessary to highlight those limitations of the different articles that make up this review. In addition, it has been possible to verify that these methods that are used on occasions coincide between the different areas but that some are more studied than others, such as Medicine or Nursing compared to Physiotherapy, which is the least studied. It is considered necessary, therefore, the need to carry out more research on the written evaluation methods for the clinical interview, as well as to increase its importance in clinical practice with the use of patients in general, and further develop this information in those fields in which it is not yet as developed as it is in the field of Physiotherapy. It is recommended to carry out comparative studies with the unwritten methods to verify the efficacy between both and that they can be published in an English-speaking journal so that their diffusion is greater. And we recommend in the future to carry out meta-analysis to include the analysis of the reviews that can go creating. Among the strengths of this study, we find that, to our knowledge, it is the first exploratory systematic review of this context, since it is a topic that has been little studied in health sciences, especially in the field of Physiotherapy. This work can provide relevant information to health sciences teachers to design methods to evaluate the interview in students, and provide

objective ways to teach communication skills and, therefore, objectify results to provide feedback and improve the learning process. .

5. Conclusions

- There is evidence in the existing literature on the presence of evaluation methods that allow measuring the clinical interview in Health Sciences, the most usual being the use of clinical practices and simulations.
- These evaluation methods are used to a large extent in different areas, the most important in this work being those related to the health field, specifically those that are addressed throughout the document, which are Medicine, Nursing and Physiotherapy. Likewise, there is existing evidence in the literature that talks about the written evaluation methods that allow measuring the clinical interview in Health Sciences careers.
- The evaluation methods that are not as widely used as scales or questionnaires are not as developed and studied as the others, so there is still a lack of information in this field.

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Author Contributions:

Yesenia López-Mendoza¹: Conceptualization of the article, coordination of the project, acquisition of data and information, review and final edition

Marlene García-Quintana²: Original writing, editing and final revision.

D. David Álamo-Arce³: Analysis of the investigation process and final review.

Irene García-Rodríguez⁴: Design and development of the study.

María del Pilar Etopa-Bitata⁵: Project management and programming.

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