

ROADMAP FOR A SYSTEMATIC REVIEW OF THE LITERATURE: THE IDENTITY OF PSYCHOLOGY

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Abstract

The systematic review of the literature concerns a scientific method of research and analysis of papers in a particular area of science. In this paper, we present the *roadmap* of a systematic review of the literature about the identity of Psychology. This systematization precedes a survey about this reality in Portugal, through interviews with Portuguese psychologists. This research stems from questions and reflections about the recognition of the role of psychological intervention in today's societies. Given the great development of the psychological science, as well as the emergence of a wide range of activities that are associated, the need to understand the role of psychologists and psychological intervention becomes relevant. Such considerations created the goal of reflecting on the psychologists' professional identity in the present and, consequently, on the identity of Psychology itself.

The present study attempts to shed some light on the phenomena associated to the professional identity of psychologists, namely, by answering one central research question: What is the fundamental and exclusive goal of psychological intervention, and which distinguishes it from any other type of intervention? Moreover, the present study aimed to analyze how psychologists define themselves and are defined by other professionals and by the public in general; to identify the difficulties that psychologists perceive in their functions as professionals; and also, to identify how psychologists interpret and describe their functions. The data that compose the present systematic review of the literature result from the extraction of documents from the following data sources: *Web of Science*, *ELSEVIER Scopus*, *Scielo*, *APA PsycNet*, *Pepsic*, *CAPE*, and *b-on*. The three main phases in the development of this *roadmap* (Initiation, Processing, and Exit) are presented. Also, the tasks of the following steps are identified: 1) identification of the need to carry out a systematic review of the literature on the selected theme; 2) elaboration of a proposal for the systematic review and development of the draft revision; 3) selection of databases, descriptors, and studies to be included in the proposal; 4) selection of studies; 5) preparation of the first consensus meeting among researchers; 6) evaluation of study quality; 7) organization of the data to be included in the research; 8) extraction of the data and synthesis of the data obtained; 9) final report, recommendations and transfer of evidence to practice.

Keywords: Identity of Psychology, Systematic Review of the Literature, Roadmap.

1 INTRODUCTION

Psychology emerged at the end of the nineteenth century in Germany [1]. Indeed, it is in the scenario of the advent of Positivism that Scientific Psychology arises, beginning to be delineated by the search for the measurement of human behaviour. In Portugal, this domain of knowledge appears somewhat later, associated to the teaching of other subjects. Psychology has been taught since 1930 in teacher training and, later on, in a medical course entitled Medical Psychology [2].

Since its emergence in the international panorama, Psychology has come to consider human beings as responsible for their development and fulfilment, given that the necessary conditions are assured [3]. For this reason, the psychological phenomenon is seen as the manifestation of internal processes, but also as the result of external experiences. As such, it originated among psychologists a disagreement about what would be the psychological phenomenon, since it had been interpreted in a generic way as a phenomenon that is disruptive and disorganized. As for psychologists, they were considered relevant, since they possessed the appropriate tools to deal with the psychological phenomenon [4]. In fact, Psychology worked under a liberal and positivist orientation, producing a naturalization of human beings. Here, human beings were seen as free, endowed with potentialities, and responsible for their personal development, which implied some level of distancing from social

reality. As such, there was a predominance of the configuration of individualistic values in modern Western societies. However, the training of psychologists has been dominated by the liberal view of the human being.

This research study starts with the assumption that psychological practice, in its different contexts, research and intervention, should be oriented towards the promotion of self-knowledge. Throughout History, the feeling of personal identity has developed, and to "know thyself" became a life purpose.

The 70's were a period of great growth in the number of professionals trained in Psychology. This growth was due to the proliferation of university courses and to the increase in the population's demand for Psychology services. Psychology has been constantly associated with the construction of the valuation of the individual; however, the confusion of roles is clear, in particular, in the discourse of professionals who refer to their nuclear role as the contribution of more positive states of well-being. Taking into consideration the greater mediation of activities in the field of Parapsychology, often with an attempt of logical and purposeful association with Psychological Science, it becomes increasingly urgent to identify the profession, making its procedures and objectives clear, and avoiding the confusion of the general public [5].

Taking into account the changes that the world has witnessed as a result of the individual valuation, as well as the greater flexibility in socio-professional realities, it is urgent to define the professional identity of this class, as well as its area of performance. Thus, if its members do not first identify with Psychology and then pursue their areas of specialty within Psychological Intervention, they may risk assuming other identities. The issue of the identity of the profession begins to have a great relevance in the international panorama due to the numerous changes that Psychologists face concerning training, professional perspectives, and expansion of the labour market. These considerations have led the authors of this work to a reflection on the professional identity of psychologists in the present and, consequently, on the identity of Psychology itself.

The process making career decisions is a complex one. According to the literature, the best career decision is the one that best enables the individual to achieve her/his career goals, in face of the various alternatives considered. The subject should choose and make the decision that is most useful for herself/himself [6]. A profession requires a certain degree of training or specialization, based on a set of principles, beliefs or opinions, with the goal of achieving a certain objective [5]. The professional occupation is considered one of the great foundations of the life of the individual, since it is in professional development that the identity is affirmed, according to the knowledge and the professional vocations of individuals.

This way, identity is built in several contexts, such as the social and relational context. However, several authors consider that professional identity is one of the core foundations of personal identity. The creation of identity, rather than a biologically determined succession of neurophysiologic processes, is mostly a maturation of the ego, in the relationship between the individual and the social environment. In turn, professional identity emerges from and is perceived through the role we play in the work we do. According to the same author, from adolescence to adulthood, professional identity helps to build the fundamental and core aspects of individual identity [7].

Later, the concept of social identity is introduced. The formation of social identity is related to the cognitive processes responsible for attempting to understand the contexts in which we live. In turn, the acquisition of social identity is defined by the perception of the position that the individual occupies in the society, and is the result of the affiliation to different social groups.[8] Thus, social identity is perceived as part of the self-concept of the individual that derives from the recognition of affiliation to a social group of reference, its emotional meaning, and the value given by the individual to the group's membership [9]. From theory of social identity, it is possible to see that belonging to the group gives the individual a certain social identity, which may be positive or even negative. In the case of it being negative, the individual tends to look for a new group in order to improve the positive aspects of her/his social identity. However, in the impossibility of leaving the group, the individual reinterprets the attributes of the group, making them more acceptable, or strives to improve the group's position in society. This effort to improve the position of the group, or to reinterpret its attributes, acquires meaning in comparison with other groups.

It is important to consider the historical and cultural context of the individual, since both contexts give important information about the formation of the identity, which is built and maintained by society, and called as "group ego" [10]. In order to contribute to an understanding of professional identity, a career is not only based on the construction of a structured professional life, but also, on the way the individual develops her/his professional life and it is seen by her/him. Stands out the importance of the

different stages of career, of its development, and the self-image that individuals develop in the course of their professional exercise, since it allows each individual to develop an objective perception of personal preferences and to define which are the best choices [11]. It is in professional development that the identity is affirmed, according to the individual's knowledge and professional vocations.

In an attempt to understand vocational behaviour through a human development perspective, it is stated that vocational development consists of the implementation of self-concept, and that it can be modified before it is implemented. For this reason, it is crucial that the subject defines her/his self-concept at the beginning of the counselling process. Moreover, it is referred that the choice of a profession is not limited to a single moment in the subject's life, but to a process that develops throughout life [12]. In fact, the author presents a new theory, in which vocational choices are no longer understood as the choice of a profession, carried out through the simple comparison of personal and professional characteristics at a given moment. On the contrary, vocational choices are understood as a process that occurs throughout the individual's life cycle and in several social contexts [13]. Thus emerges the Life Span/Life Space theory, whereby the choice of profession is seen as something dynamic and as the result of a series of small decisions, rather than as a single and unchanging decision [13].

In addition, socioeconomic, technological, and environmental factors, such as family, community, society, and economy, exert a strong influence on the individual's career development.

On the other hand, several authors suggest that the stages defined in Life Span/Life Space theory are not applicable to women, taking into account the radical changes in their life roles such as those that have taken place in recent years. Similarly, the concept of career development is applied to a very limited percentage of subjects, since the generality is unable to maintain a stable job, apart from the fact that the need to have a job does not involve career choice patterns [14].

With this in mind, the present research study presents a synthesis of the scientific production in this subdomain of Psychology, with the purpose of elaborating a systematic review. The systematic review of the literature is a scientific method of research and analysis of papers in a particular area of science. It is widely used in research in the areas of Psychology, Medicine, and Social Sciences, since there are large amounts of data and sources of information. This research methodology was developed and popularized in the area of Medicine in order to highlight the most appropriate methods of action. It is considered the most appropriate way to highlight the good practices that take place in several areas. It is referred the need of using systematic reviews of the literature, and criticizing medical practice, since there are gaps such as the lack of scientific evidence in treatments, interventions, tests, and other medical procedures [15]. Since the systematic review of the literature uses a set of procedures and techniques with high scientific rigor, aiming to achieve better results, minimizing errors, and reducing the lead researcher's biases, it is considered to provide high quality scientific evidence [16]. The definition of systematic review of the literature that was followed for the present study plan was the one that describes it as "the process of collecting, knowing, understanding, analyzing, synthesizing and evaluating a set of scientific articles with the purpose of creating the state of the art on a particular research topic [17].

The present research study stems from questions and reflections about the recognition of the role of psychological intervention in today's societies. Given the great development of Psychological Science, as well as the emergence of a wide range of associated activities, the need to understand the role of psychologists and psychological intervention becomes relevant. Our main goal was to approach and better understand the phenomena associated with the professional identity of psychologists, specifically to obtain an answer to a central research question: What is the fundamental and exclusive goal of psychological intervention, and which distinguishes it from any other intervention? Moreover, the present study aimed to analyse how psychologists define themselves and are defined by other professionals and by the public in general; to identify the difficulties that psychologists perceive in their functions as professionals; and also, to identify how psychologists interpret and describe their functions. We present the roadmap of a systematic review of the literature about the topic of the identity of Psychology. This roadmap is based on one practical model [18].

1.1 Systematic review of the literature models

Over the years, several institutions have created and consolidated suggestions to develop a systematic literature review model. There are two different yet complementary theoretical publications: the Cochrane Handbook and the CDR Report. Even though there are other methods that are used, such as the PRISMA, the two first are often used in international studies [19].

According to the Cochrane Handbook, there are seven stages in conducting a systematic review of the literature: (i) formulation of the research question; (ii) localization and selection of studies in indexed databases; (iii) critical evaluation of studies; (iv) data collection; (v) analysis and presentation of the data; (vi) interpretation of the data; and (vii) improvement and updating of the review [20]. In the (i) formulation of the research question, the first step to be taken at the beginning of any investigation, it is necessary to establish what is intended to be researched, and delineate the research question. In the (ii) localization and selection of studies in electronic indexed databases, the researcher searches for studies to be included. Here, it is necessary to take into account the selection of the databases, since they must correspond to the expectations regarding the subject. In the (iii) critical evaluation of the studies, after having selected all the studies to be included in the systematic review of the literature, inclusion and exclusion criteria will be established to determine the validity and existence of biases in the results. Subsequent to this critical evaluation, only reliable studies will remain. Likewise, excluded studies should be cited in the course of the investigation if the disclosure of the reason for that exclusion is relevant. In (iv) data collection, all the variables contained in the studies should be analyzed. In the (v) analysis and presentation of the data, the data are grouped together to obtain the final conclusions. Each grouping should be pre-established in advance, thus avoiding bias. In the (vi) interpretation of the data and in the (vii) improvement and updating of the review, writing the results should take into account the research question established in the first stage. All steps of the systematic review of the literature should be present when reporting the results, and also, the results obtained should have been developed.

In turn, the CDR Report presents a protocol for conducting a systematic review of the literature that consists of three phases and ten steps [21]. In the first phase, planning of the review, there are three stages: identification of the need for revision, preparation of a proposal for systematic review, and development of a revision project. In the second phase, conducting the review, there are five stages: identification of the literature, selection of studies, assessment of study quality, extraction of data and monitoring of progress, and synthesis of data. In the third phase, presentation of the report and dissemination, there are two stages: report and recommendations, and transfer of evidence to practice.

Since both publications, the Cochrane Handbook and the CDR Report, are equivalent, several authors have chosen to unite both publications in one third method, obtained from the consensus of the researchers [22].

To better understand the roadmap proposed in the present paper, it is necessary to reflect critically about the several contributions made by researchers regarding the development models for a systematic review of the literature. Here, two theoretical models can be stressed. The first model, proposed, describes the systematic review of the literature as a process composed of three main phases [17]. In the first phase, entry, all the preliminary information that will be analysed is collected, such as the classical papers of the area under study, the books and texts that compile knowledge in the area, and the papers of reference indicated by specialists. In the second stage, processing, there are six phases: know the literature; understand the literature; apply the review; analyse results; compile results; and evaluate results. Finally, in the third phase, exit, a synthesis of the results is performed. This model reinforces the need to systematically review the literature in cycles throughout six stages, namely: know the literature; understand the literature; apply the review; analyse the results; prepare a summary of results; and evaluate the results obtained. Thus, when knowledge about the topic increases, cycles are performed more efficiently. The cycle, in turn, will be repeated as many times as necessary, in order to achieve the goals defined for the bibliographic research.

Later, another model is proposed and considers the planning, execution, and analysis of the results [23]. However, this model does not emphasize the need to develop a systematic review of the literature in interactive cycles of research, analysis, and understanding. It oversees the researcher's learning and knowledge acquired during research, readings and understandings of texts [17]. In the planning phase, the goals of the systematic review of the literature are defined and the protocol is developed. In turn, the protocol details the central research question, goals, keywords, search strings and the method of execution. If the protocol is approved by all researchers, the second phase begins. It is during the execution phase that the primary studies are identified, selected, and evaluated, taking into account the inclusion and exclusion criteria defined in the protocol of the systematic review of the literature. After the selection of the primary studies, the data are extracted and compiled during the analysis phase of the results. It is important to note that, during the first and second phases, an evaluation of the results should be made, because if the results are not evaluated positively, the implementation phase will be resumed.

2 METHOD

The data that compose the present systematic review of the literature were extracted from bibliographic references' databases, periodicals' databases, theses and dissertations' databases, and online knowledge library. In the bibliography databases were included the *Web of Science and Scopus ELSEVIER*; in periodicals' databases were included the *Scientific Electronic Library Online – SciELO*, *the American Psychological Association PsycNet*, and *Periódicos Eletrônicos em Psicologia – Pepsic*. In theses and dissertations' databases, *CAPES* was included. The online knowledge library included was *b-on*. Given the specificity of the selected databases, we decided to start the process in "advanced research", in order to circumscribe the object under study, without changing the meaning and scope of the defined assumptions. The inclusion criteria of the present research were: papers published between 2007 and 2017; papers published in English and Portuguese; papers indexed in the following databases: *Web of Science*, *ELSEVIER Scopus*, *SciELO*, *APA PsycNet*, *Pepsic*, *CAPES*, and *b-on*. All papers that did not include the keywords "psychology" and "identity" were excluded.

3 ROADMAP

There are three main phases in the development of the roadmap we propose: Initiation, Processing, and Exit. Here, the following steps are mapped: identification of the need to carry out a systematic review of the literature on the selected theme; preparation of a proposal for the systematic review and development of the draft revision; selection of databases, descriptors, and studies to be included in the proposal; selection of studies; preparation of the first consensus meeting among researchers; evaluation of study quality; organization of the data to be included in the research; extraction of the data and synthesis of the data obtained; final report, recommendations, and transfer of evidence to practice.

3.1 Initiation

In the first phase of the roadmap we propose, Initiation, there are eight steps, all of which have been taken already in the present research study: (i) definition of the research question; (ii) definition of goals; (iii) identification of primary sources; (iv) building search strings; (v) definition of inclusion and exclusion criteria; (vi) definition of qualifying categories; (vii) definition of method and tools; and (viii) schedule development.

(i) In the definition of the research question, which is considered the starting point for conducting a systematic review of the literature, the research question must be formulated clearly and precisely, with agreement between researchers. The success of subsequent steps is directly related to the research question, so it is important to dedicate time to formulate the question properly.

(ii) In the definition of goals, the aim of the systematic review of the literature must meet the goals of the research project. It is necessary to have rigor in the definition of the goals, since they will be the basis for the analysis of the studies found in the research.

(iii) The identification of the primary sources consists of the identification of articles and book chapters published in the bibliography databases, periodicals' databases, theses and dissertations' databases, and library of online knowledge.

(iv) The building search strings step follows a process of definition, testing, and adaptation. Here, it is necessary to test the combination of the terms for the research topic and to test how the Boolean operators *and*, *or* and *not* will be used.

(v) In the definition of inclusion and exclusion criteria, taking into account the goals set for the research, criteria for inclusion and exclusion of primary sources is defined.

(vi) The definition of qualification categories proves to be useful in signalling and conducting the systematization of the distinguishing features of papers and chapters included in the systematic review of the literature. The qualification categories may vary according to the goals of the systematic review of the literature; however, there are criteria that can be applied in any kind of study. The qualification categories we suggest to be used are: indexing sources, date of the work, publication document, methodological perspective used, adopted research method, amount of citations obtained by the primary study, and sample size.

(vii) In the definition of method and tools, it is necessary to define the steps that will be taken for the development of the research, as well as search filters and how they will be conducted in journals and

databases. We suggest that the research method chosen is interactive, which will allow to refine the research.

(viii) The schedule development will enable to monitor the work carried out. Taking into account the defined goals, the systematic review of the literature should last between three and 12 months, from its planning to its end.

3.2 Processing

There are three steps in the second phase of the roadmap: (i) conducting the research; (ii) reading and analyzing results; and (iii) documentation of the studies.

(i) In the conducting the research step, we shall perform searches in journals and bibliographic references' databases, periodicals' databases, theses and dissertations' databases, and also, an online knowledge library, according to the search strings and the use of Boolean operators *and*, *or* and *not*.

(ii) In the step concerning the reading and analysis of the results, it is necessary to read the primary studies, which will be submitted to three reading filters. The first reading filter that the studies will be submitted to corresponds to a reading of the title, abstract, and keywords. It is important to note that sometimes it is not enough to just read the title, abstract and keywords of a paper, to decide whether the study meets the goals set for the research, as well as the inclusion and exclusion criteria. If there is doubt about the study, researchers should submit it to the second filter, which includes reading the introduction and the conclusion of the paper, in addition to the parameters already discussed in the first filter. Those studies that fail to meet the research goals and the inclusion criteria should be excluded at this stage. The third filter is applied when the second filter is insufficient, and corresponds to the full reading of the paper. From this reading, it is possible to identify if a paper meets the inclusion criteria defined initially, which will allow its inclusion in this systematic review of the literature.

(iii) Finally, in the documentation of the studies, a systematization of the core information is performed, such as the number of items found in each data source, and the amount of excluded studies. This information will further refine the search, and aims to assist the theoretical debate on the subject, and also, in cataloging and storing the studies submitted to the reading filters cited above.

3.3 Exit

In the third and final phase, Exit, there are four steps: (i) insert warnings; (ii) cataloging and storing studies; (iii) bibliometric analysis; and (iv) synthesis of the studies and results.

(i) In the first step, insert alerts, warnings are inserted in several journals identified during the development of the systematic review of the literature. The researcher will receive an alert via e-mail concerning the papers published during the course of the systematic review of the literature. In case there is an interest in any published paper, upon being warned about its publication, it will be included in a second phase of step two, concerning the reading and analysis of results.

(ii) In the cataloging and storing studies step, papers will be included in the references' management software and in the qualitative data analysis software. We recommend the Mendeley Desktop as references' management software, and the NVivo 11 as qualitative data analysis software.

(iii) In the bibliometric analysis step, the scientific impact indexes of the paper and the impact indicators of the selected sources are evaluated. The number of citations received by each paper and the impact factor of the journals in which the studies have been published will be analysed. The evaluation of scientific production, which is a key factor for the recognition of researchers in the scientific, both national and international, community and by financing agencies is done through several bibliometric indicators.

(iv) In the final step, synthesis and results, a critical synthesis of the studied literature is performed, based on qualification categories: indexing sources, date of the study, publication document, methodological perspective used, research method adopted, amount of citations, and sample size.

4 FINAL CONSIDERATIONS

As future suggestions, we recommend a semantic analysis of the terms for the definition of concepts and theoretical models. As a limitation, in the step concerning the analysis of results, perhaps statistical techniques could be included, for a quantitative analysis of the results.

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