

Sources of Information That Guide the Pedagogical Work of Early Childhood Educators: An Exploratory Study in Chile

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Abstract

The following article is a qualitative study that identifies the types of sources accessed by early childhood educators in their search for information to guide their pedagogical decisions regarding classroom problems. Previous study was centered on the understanding that teaching is a demanding and complex exercise, exposed to multiple problems, where the sources of information used by the educators can be a way to understand the ways in which they inform themselves when facing unexpected problems. The research is based on the interpretative-comprehensive paradigm, with a qualitative methodology, which included 22 semi-structured interviews with practicing kindergarten educators, with a minimum of one year of experience in the Maule Region, Chile. The findings of the study indicate that non-written sources such as other professionals, colleagues and family were the most reported by the participants as sources of information to help them understand their classroom problems, emphasizing that the relationship with others is fundamental, highlighting the importance of interdisciplinary work and recognizing their professional limits.

Keywords: early childhood educators, sources of information, evidence-based education, classroom problems

1. Introduction

1.1 Introduce the Problem

Teaching is a demanding and complex exercise, which requires the direct or immediate resolution of multiple problems, whether behavioral, relational, or pedagogical, among others (Campbell et al., 2006; Fanti & Henrich, 2010). In many cases, the personal resources that teachers possess do not allow them to face these problems (Aldrup et al., 2018; Aloe et al., 2014); however, it is important to know how they face problem situations and what type of resources do education professionals use or bring into play. One of the aspects that must be considered in the understanding and resolution of pedagogical problems is the adequate search and selection of specialized information sources (Csanadi et al., 2021).

In this sense, the literature points out that teachers base their pedagogical work on common sense, ideas built from their own practice (experiential knowledge), communication with peers, or by means of normative documents and to a lesser extent bibliographic sources (Sinnema et al., 2011; Tardif, 2004). There is an emerging gap between scientific information sources and educational praxis, evidencing a limited impact of educational research on teaching practice (Cronin-Jones, 1991; Howard-Jones et al., 2018; Perines, 2018). Regardless of the level or specialty of teachers, the vast majority do not orient their educational work based on scientific evidence (Blanco-López et al., 2018; Cronin-Jones, 1991; Perines, 2018), given that they see the sources of scientific information as something distant from their professional practice. Teachers do not believe or do not give validity to the information that comes from scientific sources, because, among other reasons, they consider it distant or of little use in their pedagogical practices (Kiemer & Kollar, 2021).

Nowadays, considering the profusion of information sources, and with the understanding that not all of them are reliable or pertinent from scientific criteria, the need for personal resources (skills, criteria) that allow teachers to discern between pertinent and relevant information from inappropriate, false or erroneous information becomes

evident. This skill, essential in our society, is a minimum competence of any teacher, a skill that also tends to favor autonomy in decision-making by teachers (Montero & Gewerc, 2018).

In this line of research, most studies have been conducted with elementary and middle schoolteachers (Broekkamp & van Hout-Wolters, 2007; Murillo & Perines, 2017; Ratcliffe et al., 2005). The case of early childhood educators, on the other hand, has received less attention. The latter is striking, considering that their teaching role is in permanent tension between the logics of care and teaching (Pardo & Opazo, 2019), also considering that research in the area reports the long-term benefits of quality early education in the linguistic, cognitive and socio-emotional dimensions, where early childhood educators represent the main quality factor in educational centers (Fukkink & Lont, 2007). Therefore, it is important to focus on studies that allow us to understand how educators solve early childhood classroom problems.

1.2 Literature Review

The current era, identified as the "knowledge society," is characterized by an exponential increase in the amount and variety of available information sources, where technological innovation and communications have changed people's relationship with information (Astakhova, 2016; Krüger, 2006). In this sense, a critical and informed understanding of their professional work based on multiple sources of information is expected from educators (Brante & Strømsø, 2018; Goldman et al., 2016). In this form, enabling, among other possibilities, decision-making and problem solving. This is especially valid for teachers, who are confronted daily, in their professional practice, with problems of diverse nature and complexity, which do not have a single solution and are often difficult to solve (Lin et al., 2005).

In their educational work, teachers must make informed decisions based on the best available information. This is in contrast to the evidence that indicates that educators rarely base their professional practice on scientific research (Hemsley-Brown & Sharp, 2003; Slavin, 2002), which could affect their professional practice. This problem raises the question: why is the teacher's relationship with scientific information complex, or what variables prevent an articulated relationship between scientific information and educational praxis?

This complex relationship of the teacher with scientific information has multiple edges, where the perceived low usefulness of the research stands out because it is considered decontextualized (Cain & Allan, 2017; Kutlay, 2013), because of the technical language used (Alhumidi & Uba, 2017; Ion & Iucu, 2014), or due to lack of time (Alhassan & Ali, 2020) among others. Similarly, evidence points out that teachers may be vulnerable to misinterpretation of information (Wathen & MacMillan, 2018), which would affect their professional practice. These variables can be a source of misattributions of usefulness in professional practice, limiting the use given in different educational settings (Supplee & Meyer, 2015; Webb, 2018).

One of these variables refers to the fact that teachers' first choice is not to read research as a source of information, on the grounds that the research seems very hypothetical to them (Behrstock-Sherratt et al., 2011) or even because the topics covered are considered insubstantial and their conclusions not very useful (Levin & O'Donnell, 1999). Finally, access to information sources is strongly correlated with the perception of low usefulness, lack of ability and time of the participants to search for results in scientific research (Thomm et al., 2021a). This situation would evidence that teachers would have difficulties in evaluating and making use of scientific research (Ion & Iucu, 2014), so they would be inclined to seek sources of information that relate to their immediate and pressing concerns (Van Schaik et al., 2018), avoiding those that do not consider their most immediate needs and preferences (Behrstock-Sherratt et al., 2011).

In an earlier study, Kutlay (2013) identified that the low level of educators' engagement with reading scientific sources can be attributed mainly to the fact that they have not been scientifically literate (research literacy/informational literacy), along with the organizational culture of schools, a context that does not favor the use of scientific information (Alhumidi & Uba, 2017; Anwaruddin & Pervin, 2015). For their part, Vanderlinde and van Braak (2010) suggest that the gap between sources coming from research and practice is a complex phenomenon, so it is essential to generate professional learning communities that grant the conditions to foster a cooperation between researchers and educators.

In an attempt to explain the gap between research and practice, Broekkamp and van Hout-Wolters (2007) undertook a study in which they identified four basic problems that constitute the research-practice gap. According to the authors, for education professionals (researchers, teachers, teacher educators and policy makers) research: a) provides few conclusive results; b) produces few practical results; c) educational research is neither conclusive nor practical; and d) as a result, they make little use of educational research. These problems would be interrelated and would determine the relationship of educational professionals with educational research and practice.

This low perceived usefulness of scientific information sources by teachers (Supplee & Meyer, 2015; Webb, 2018) implies that they are not being persuaded by them (Bromme et al., 2015) and, consequently, pedagogical decision-making is based on common sense or their own professional experience. Varied factors have been shown to affect this persuasion, such as content or argument characteristics (Scharrer et al., 2013), as well as source and receiver characteristics (Bromme et al., 2015; Pornpitakpan, 2004).

Therefore, the literature points out that, when selecting information sources, teachers could bring into play criteria that would tend to move away from methodological aspects, taking a greater preponderance of the knowledge generated in their experiences (Boardman et al., 2005; Sinnema et al., 2011) or by collective decisions. According to Simons et al. (2003), the judgment about the validity of the information are possible based on agreements taken by consensus and in relation to practical use.

Finally, we can observe that both teachers and researchers, in general terms, would use different criteria to validate the information (Bartels, 2003). Thus, this research seeks to understand how early childhood educators relate to scientific sources in the context of their professional work. Therefore, the objective of the study is to identify the types of sources that early childhood educators access in the search for information that will help them to guide their pedagogical decisions regarding classroom problems.

2. Method

2.1 Identify Subsections

The present study is a qualitative methodology based on the interpretive-comprehensive paradigm (Given, 2008). The study seeks an approximation to the subjective understanding that the participants have about the sources of information, that is, how they represent and make sense of the way they are informed when faced with situations for which they do not have theoretical schemes that allow them to approach them in an informed way (Flick, 2018; Given, 2008).

2.2 Sample and Data Collection

The study collected data during March and April 2022 in two provinces of the Maule region, Chile. Before data collection, the researchers obtained the approval of the institutional ethics committee of the Universidad Católica Del Maule, act No. 177/2021, and subsequently the signature of the informed consent of each participant. The participants were informed of the purposes of the research and their authorization was requested to record each of the interviews, thus safeguarding the ethical aspects under the declaration of Helsinki. Due to the health emergency in the country, the 22 interviews were conducted through the Zoom platform, with an average duration of 50 minutes. The sampling used was non-probabilistic, using the snowball technique (Atkinson & Flint, 2001), which allowed access to the participants, starting with a subject who refers to the researcher the name of another possible participant and so on, until the total number of educators established was reached. The following inclusion criteria was considered for the selection of the sample: qualified early childhood educators with at least one year of classroom experience in the educational system and with Spanish as their mother tongue.

2.3 Analyzing of Data

We analyzed the data through a simple frequency analysis, considering the number of sources cited by the participants. Then, the content analysis (Graneheim et al., 2017) was developed, through a process of categorization of the sources accessed by the participants. We used NVivo 10 software during this process. The research team carried out this stage in the following sequence: i) the data were reviewed in their entirety in an open-ended manner, trying to answer the question "what do the data say?" The information collected was grouped into two classificatory categories that subsequently evolved with the following coding phases; ii) in a second phase, connections were established between the codes to build descriptive and explanatory categories. These categories will be detailed in the results section of this article; iii) The last phase corresponds to the theoretical elaboration, which sought to develop an explanatory framework to understand how, faced with a problem, educators seek and select potential sources of information to help them understand their classroom problems. To safeguard the reliability of the data, the research team considered the following strategies as reported by Bailey and Bailey (2017); First, using descriptive categories with a low level of inference, i.e., as concrete and precise as possible. Second, two independent judges, read and coded autonomously, in pursuit of ensuring a balance of analysis and interpretation; third, identifying informants, i.e., developing an adequate description of the participants; and, finally, specifying the methods of data collection and analysis.

3. Results

The types of classroom problems worked on, namely: a) academic problems, situations whose origin lies in a strictly academic situation or that impact pedagogical decision-making (Rhoad-Drogalis et al., 2018) b) labor problems, situations derived by an administrative decision that impacts on teaching action (Hascher & Waber, 2021) c) behavioral problems, specific situations of disruptive behavior of diverse origin, with or without medical character, situations of verbal or physical violence, that affect the normal development of pedagogical activities (Bulotsky Shearer et al., 2020 Wilson & Lipsey, 2007) d) personal problems, a situation that challenges the teacher's skills to find a solution to a problem (Ávalos et al., 2022); and e) interpersonal problems, situations related to relationships with others, whether parents, colleagues and/or children (Pavlidou et al., 2022).

The matrix is presented below, whose mega-category focuses on sources of information that guide the educational work of early childhood educators. Two primary categories emerge from it, such as written and non-written sources, which show the main sources to which educators have access when facing problematic situations. The secondary categories derived from the previous ones are presented according to the codification of the primary documents, i.e., the semi-structured interviews with the participants. Consequently, the categories and codes resulting from the coding and categorization of the 22 interviews are shown. Each account presented has a code that expresses the following nomenclature: acronym of the name (NN), date, and Interview Number (N°).

Table 1. Data Systematization Matrix

Mega Category	Primary Categories	Description	Secondary Categories	% total references
Sources of information	Written sources	Category referring to sources consulted in textual format	Websites	8.96%
			Texts	8.09%
			Scientific articles	2.89%
			Academic Reports	2.89%
	Non-written sources	Category referring to sources consulted in non-textual or oral transmission format	Other professionals	23.99%
			Colleagues	18.20%
			Family	15.32%
			Management teams	8.38%
			Personal experience	4.62%

Source: own elaboration

3.1 Primary Category: Written Sources

In the category of written sources, early childhood educators use websites as their first search option, the early one of the secondary category. Websites are easy to access, providing guidelines for educational work, being sources of information relevant to their classroom problems, and, according to their criteria, having updated information.

"I feel that it is the easiest information for us to access, we have it at hand and the truth is that one is always searching through the Internet" (DS22M-N°45).

"Because they are supposed to have a more updated base, a more solid base" (ES28M-N°36).

The problems that an educator may face in their professional practice are varied; in the case of behavioral problems, the participants refer to the need to establish a relationship between the children's behavior and the information they handle. Therefore, the information found on the web can help them to prepare, improve and be able to control the anxiety caused by these types of problems, where a characteristic recognized by them is to be able to face similar situations in the future with more preparation.

"It helps to improve, for example, the anguish that one feels at the moment, the problems that spring out in the classroom help to improve that, because I can get tips, some ideas, then the next day I can face them with more preparation to take action" (AC24M-N°3).

The second primary category was texts, which we considered sources of information that help to understand or find solutions to problems. The texts have the characteristic of having information relevant to the issues that the educators experience at the moment.

"For example, María Victoria Peralta has many texts related to kindergarten education and texts that we have acquired in the kindergarten, where they talk about interactions and emotions" (YG27M-N°78).

The interviewees point out that the texts they tend to consult are characterized by providing a wide range of information about the children; in the case of behavioral problems, they provide relevant data, for example, about the language and form of expression of the infants.

"I have a book that says many things... information about the language of the children, how they speak with their gestures, their look, their way of expressing themselves" (FS18M-N°95).

They consider the institutional texts to be very useful, in that they help them to know and be informed about what is being worked on at a general level

"They are documents that inform you about what is being done at the macro level, especially at the institutional level" (LG16M-No. 34).

The books provided by their educational agencies are characterized by providing various strategies to help address problematic situations and have the necessary information to help them develop a balance between the situations that occur in everyday educational life and those indicated in these documents.

"The first thing I would do is to resort to the institutional theoretical reference of good treatment, which is the educational booklets where they collaborate with strategies to address a behavioral problem" (MH17M-N°31).

Regarding the discourse of the kindergarten educators interviewed, a characteristic pointed out in the scientific articles is the relationship that we established with their initial training, in this sense; the participants point out that these sources are reliable and adequate to address problematic situations.

"Because at the University I was taught that the source had to be the most reliable and how it is based on research" (CR29M-N°14).

They develop the idea that, from the information offered by the articles, they can support their professional decisions and evidence a good assessment in terms of the institution or university that carries out the research or even the organization that is part of the study

"Some papers also that can help me to support me, a paper, a text, the part of a book, something that tells me that the number of children does affect the development of the educational objectives" (JA21M-N°13).

"I rely a lot on my texts and on current research that may be taking place in universities or organizations a little more established, such as UNICEF, and I also look for some articles that have proposals from the undersecretaries" (EN23M-N°15).

In the last primary category of written sources, we find academic reports, valued as a source that allows to be informed and to know the reality of the students' family context and to gather the vision of others, helping to support the work of the educators.

These educators understand the complexity of not having all the information and/or the necessary knowledge to face, for example, personal problems

"I would ask for reports from the previous school, if there was an interview with his mother, with the family, in fact, to find out where the problem is" (AC24M-N°6).

The educators emphasize the importance of academic reports, mainly because it allows them to get first-hand information about particular situations of the infants or classes, as a way that can help them to complement their views.

"First, I would turn to the student's file or report, then with the family directly, then with the previous year's educator, and the multidisciplinary team, and then to my theoretical sources, texts and support material" (SM23M-N°20).

3.2 Primary Category: Non-Written Sources

The second category, non-written sources, refers to those consulted in non-textual or oral transmission format. From the participants' accounts, the main primary category was other professionals, generally referring to psychologists, social workers, speech therapists, and special educators, among others

"I would consult with the psychosocial team (psychologist and social worker) since they have a different view of what is happening to the child, they can give more formal, more truthful information" (PA21M-N°19).

According to the early childhood educators who participated in the study, these professionals can contribute with

their expertise in different ways to address problems, for example, by guiding their work or evaluating children who require it

"I would talk to the psychologist of the institution so that she could orient me, go to observe the room, and maybe evaluate the children to follow some tips with them" (AC24M-N°35).

The expectations toward these professionals as sources of information allow the educators to broaden their views, as well as to complement and diversify their work strategies when facing academic problems, for example

"We have a multidisciplinary team, a speech therapist is also a support, we look for that, if we have that support we look for it so that they can also give us their expert opinion and strategies so that the child will improve in that area" (EN23M-N°102).

The primary category referring to colleagues is related to the trust or closeness that early childhood educators feel with their peers when experiencing problematic situations in the classroom

"Well, in case of any doubt, I turn to my peers first, to my close peers, that I trust that they have certain knowledge, that they are like good educators, that I endorse that they are good" (ES28M-N°11).

In general, the interviewees indicate that they tend to consult and to establish a common dialogue with their colleagues, through agreed meetings, characterized by a feedback process.

"I would try to have a personal conversation with her, that is the real source of information, the only one, because she is the one who can tell me what the problem is, not the attachments" (XF28M-N°5).

It is important to seek agreements together, as a culminating process of interpersonal dialogues, showing that colleagues are an adequate source of information when the problems are of a labor or interpersonal nature and that solutions can be reached together

"Most likely we would meet among colleagues to discuss the situation, all colleagues, this would be to address the situation, as in a council and there see the pros and cons" (CM22M-N°72).

The family, besides being one of the first sources of information to which the participants have access, conveys important information regarding the behavior and conduct of the children at home, information that helps them to contrast with the reality they experience in kindergarten, to be able to make decisions based on both contexts,

"When we seek information, the first thing we do is talk to the family; we interview to visualize what behaviors may be occurring at home and in the kindergarten" (DS22M-No. 23).

In the case of behavioral problems, the educators recognize the importance of the family, taking into account the possibility of to be informed about what is happening in their homes, to link the problems of the family and social context

"The family is a source of information, since violent attitudes, as in the place where I work, are based on socioeconomic strata, social characteristics of the family and near the kindergarten, violence, deprivation, vulnerability, and it happens a lot that the infants have violent attitudes" (YG27M-No. 17).

Due to the characteristics of the type of sources, in general, the participants referred to the management teams as a source that conveys information that allows them to know the reality of the work and regulatory contexts. However, according to the participants, management teams also provide information on the support that they can receive from other institutions, which is why they are essential in the implementation of support and collaboration networks.

"We try first with the management team to raise the problem with the municipal coordinator and try to work with the support network, to see if we can get some benefit either visit with talks and so on. It is like our way of acting in these cases because we have no other support" (YG27M-N°12).

In this way, the notion is that management teams are a source that allows early childhood educators to make decisions based on information that is not specific to their discipline, thus complementing the external view of the problems faced, recognizing that the autonomous work in their classrooms can be complemented by the information provided by management teams.

"I would turn to the school's management (management and UTP), not to make decisions on their own, because they have other knowledge, another external view, they may have another opinion, many times one closes oneself in the problem and sometimes an outside view is much better and a better solution can be reached" (PA21M-N°38).

Thus, for early childhood educators, the management teams are sources of information that can support their professional work, mainly through the implementation of collaborative work, which can support them in their

educational task

"First, we must talk with the management team, raise the problem with the municipal coordinator and try to work with the support network to see if we can obtain some benefit" (YG27M-54).

On the other hand, the educators state that when facing labor problems, where the tension is with one of their colleagues, the management teams become a support in the face of the conflict recognizing the importance of following a regular channel in the search for solutions, i.e., first they turn to the colleague involved and, in the event of not reaching agreements, they continue with the management teams:

"My colleague would be the first source to see the problem and be able to solve it and then if there is no agreement I would ask for some support from management, with the management team" (CM22M-N°2).

The last primary category belonging to the non-written sources was personal experience and its relevance in the processes of searching for information when facing problematic situations on the part of early childhood educators. From the participants' accounts, it is possible to recognize that, when facing complex situations, educators tend to debate about the situations faced, relying on their preparation and training, for example, when the problems are academic:

"Well, difficulties are a bit of a debate with myself to see if I am doing what corresponds or not, let's say that is the difficulty we could have had because the truth is that I like the subject of planning and I feel that I am very prepared for that, I handle planning quite a lot" (KV22M-N°77).

Likewise, personal experience, as a source, presents the characteristic of being related to the problems experienced in daily work, i.e., they tend to be sources that convey information that emanates from their educational context:

"My experience is also a source of information, since violent attitudes, as in the place where I work, are related to socioeconomic strata, social characteristics of the family and near the kindergarten, violence, deprivation, and vulnerability are seen a lot" (YG27M-No. 96).

It is important to highlight that personal experience is a source of information recognized by educators with more years of service, mainly because they recognize that, in previous stages of their educational work, interdisciplinary work with other professionals was not so common and, in general, most of the problems had to be solved and/or faced by themselves:

"It is important to the experience that one has acquired, to analyze everything well, so it can be like that because before there was no psychologist or psychosocial team or anything else, one was an entity in the room and solved the problems as you could" (ES28M-No. 37).

On the other hand, some educators recognize the importance of common sense, pointing out that professional preparation contributes to their educational work, i.e., they consider that some training deficiencies may stress their professional practice. When evidencing, in their daily work, deficiencies that should be corrected by the personal interest in being informed, thus recognizing the importance of professional experience and the interest in being informed, as important points that contribute to improving their professional work:

"One can have a background, a knowledge, but we are not professionally prepared for that, it depends a lot on the personal skills of each educator, the interest or how you go about looking for sources of information to support these little ones" (EN23M-N°24).

Thus, the educators point out that information from professional experience can be complemented with what was learned in initial training, but without abandoning collaborative work with management teams:

"In that case, I have to resort to what I have been learning in the course of university and personal strategies, but we still talk and work in coordination with the director of the establishment, looking for other solutions" (CR29M-PL-N°4).

In this way, they tend to complement their professional work with the skills and interests of each educator, thus complementing some training deficiencies, to favor the work with the children.

4. Discussion

Kindergarten education stands out for the multiplicity of its work, the duality of care/teaching, and the challenges they face daily. Here is recognized as an exhausting job, for example, with a high number of children per classroom (Ortiz Parada et al., 2012), in addition to being professionals subjected to high levels of stress, the product of a work overload and little time for distraction during their workday (Arteaga González et al., 2018). In this scenario where it

is recognized to be a profession exposed to constant problems, the discussion is placed regarding how to identify the types of sources to which early childhood educators have access to favor the processes of searching for information that can help them to guide their educational processes or pedagogical decision making around these various problems experienced in their classrooms.

The research reports a first category called "Written Sources," composed of the primary categories of websites (8.96%), texts (8.09%), scientific articles (2.89%), and academic reports (2.89% of the total number of references); these sources were the least consulted by early childhood educators when facing complex situations in their professional practice. The findings of the study are consistent with what is reported in the literature regarding written sources, where it is evident that teachers in general consult written texts to a lesser extent such as normative documents or other bibliographic sources (Sinnema et al., 2011; Tardif, 2004), while information coming specifically from scientific sources plays a lesser role in their educational processes (Hiebert et al., 2002; Van Schaik et al., 2018).

In the present research, the participants report that websites, as sources of information, are easily accessible, and updated and provide relevant orientations to educational work, where they can find strategies focused on teaching and professional development (Y.-J. Chen et al., 2019); these sources report a role in addition as a means of communication between teachers, for the development of administrative tasks and communication between families and educators (L. Chen et al., 2019). On the other hand, they highlight that texts, specifically institutional texts, are useful, mainly because they focus on the more general problems experienced by educators, while scientific articles are seen as sources with which they can establish a relationship with their initial training (IDF), also recognizing that they are reliable sources, but with the limitation of not being usually used to address their problematic situations. In this context, it should be noted that the participants in general refer to peculiar characteristics and complexities to the sources of information, which should be analyzed and considered by research in the area. In this sense, the results of this study point to the importance of generating a dialogue between the information needs of early childhood educators and the information reported by the academy, to overcome the gaps that exist between scientific information sources and educational practice, both for teachers in general and early childhood educators in particular, as reported in several studies Borg (2010); Broekkamp & van Hout-Wolters (2007); Groß Ophoff et al. (2017); Perines & Campaña (2019); Van Schaik et al. (2018); Vanderlinde & van Braak (2010).

The second category reported in the study is called "Non-written sources;" these were the most reported by the participants and composed of the primary categories of other professionals (23.99%), colleagues (18.20%), family (15.32%), management teams (8.38%) and personal experience (4.62% total references). These references show a greater tendency of early childhood educators to seek information, that is, they are the most common sources in their professional practice. In this sense, it can be pointed out that, by other professionals, we generally mean psychologists, speech therapists, and social workers, among others, who tend to be linked to educational work, who have the characteristic of guiding their specific knowledge to the work of the educators, becoming recognized as a reference when information is required. The value of the management teams stands out, having the characteristic of being a link between the school/kindergarten and these professionals, to generate instances of support and/or cooperation, as psychologists (Aizenberg & Oplatka, 2019; Albritton et al., 2021) who tend to play an important role in issues such as the integration of children with educational needs. For their part, fellow educators present the characteristic of being recognized as reliable and close sources of information, where the experience they handle is valued, despite the evidence that points out that kindergarten education is a profession subject to constant stress and with little free time in their day (Arteaga González et al., 2018), educators take the time to support their peers in their professional work. In this category, the family stands out, and tends to be recognized as one of the main sources of information related to children's contexts. Regarding behavior and behaviors at home and thus connect with the reality experienced in the kindergartens, which is consistent with what is reported in the literature, where it is recognized in the family (Buisse et al., 2006; Farley-Ripple et al., 2018). The value of family-preschool educator collaboration, a communion that can generate positive effects on both children's learning and academic success, as well as be important when deciding which evidence-based practice to implement (Barnett et al., 2020). The participants in this study reported that their personal experience as a source of information presents an important link to initial training, as confidence in what they know depends on what they learned at the university.

Finally, regarding the sources of information, early childhood educators can be recognized as experts in the use of information obtained from their professional work, but novices about the information obtained from research sources. According to experienced educators, in previous years, interdisciplinary work with other professionals was not so common, which is why they had to face their problems based mainly on what they had learned in their professional work and the IDF. This issue is not different from teachers in general, but they do present the advantage of being

professionals who can relate what they have learned from their practices with scientific sources, which favors and increases their abilities to understand scientific research from their educational contexts (Elm & Nordqvist, 2019). However, it is necessary to reflect on the need to implement and facilitate the access by early childhood educators to scientific information sources, but these are not seen in this research as a replacement for the information that educators already handle, but rather considering that information from scientific sources is a possibility for educators to expand their information resources, helping as a guide and complement to improve their individual experiences, thus seeking to favor their professional practices (Rousseau & Gunia, 2016; Thomm et al., 2021b). Mainly, the literature points out that, if teachers in general engage with scientific evidence, this can have a positive impact on both teaching and student learning (Cain, 2015; Van Geel et al., 2016). In the particular case of early childhood educators, accessing, using, and basing their educational work on scientific sources of information tends to strengthen children's learning and development (Dunst & Trivette, 2014; Farley et al., 2018).

5. Conclusion

In their professional practice, early childhood educators face some problems that could be considered routine, but in other cases not; in such situations, their professional resources could be insufficient to address them. Moreover, it is possible to think that, due to their nature and implications, some of these problems may not be solved simply and directly, which is why they may require access to information from other sources. Although the evidence indicates that the search for solutions may be mediated by multiple sources of information, it is not clear how early childhood educators proceed, mainly because of the scarce works that address this issue. Therefore, it is essential to address the type of sources to which kindergarten educators have access in their search for information to help them guide their pedagogical decisions regarding classroom problems. In this sense, it is possible to infer that their relationships with information sources present particular characteristics that differentiate them from other education professionals. Consequently, and given the scarce research that addresses this issue, it is also necessary to consider the meaning acquired by written and non-written sources, as sources of information that help them to approach problematic situations. These sources become especially important when the educational work of early childhood educators takes place in highly complex environments and when the frequency of problems, for example, behavioral ones, is high.

Certainly, recognizing which sources of information are important for the professional work of early childhood educators is fundamental. In the first place, it is clear that the various problems experienced by educators continue to challenge them in their educational work, and they are agents that mobilize them in their search for information. For educators, the main sources of information are the "unwritten sources" where it is emphasized that the relationship with others is fundamental, in this sense, they recognize the value of the knowledge possessed by other professionals, highlighting the importance of interdisciplinary work and recognizing their professional limits. In addition, they tend to turn to their colleagues when they experience urgent situations, valuing the experience they have and the common language, a fundamental criterion that motivates them to consider them as valid sources of information. On the other hand, educators also tend to get information through the family, which is considered the main source; therefore, families play a dual role, on the one hand, they inform about the daily context of children at home, but also contribute when deciding whether or not an activity obtained from the literature can be applied to daily work. In this sense, the importance of collective work and the consensual and well-founded decisions made by early childhood educators, based on relevant information from other professionals, the experience of their colleagues, and the contribution of the families regarding the context in which the children develop, is emphasized.

During their professional practice, early childhood educators tangentially consider written sources, in this scenario of scarce use, websites and texts in general stand out. Regarding websites, it is important to highlight that information is accessed through search engines in general, without accessing specific sites or databases. In this context, the opinions of the participants have been relevant, mainly because general and not specific information search strategies are glimpsed, being able to access unwanted sources or those containing false information, which is why it is necessary to work on their search strategies. In addition, concerning texts, it is noted that early childhood educators tend to access institutional books or regulatory frameworks, where their problems are addressed from general strategies, highlighting the guidelines and solutions provided by the institutions, which have the characteristic of being quick reference texts written in a familiar language, a subject that facilitates their professional work. In this line, the question arises: how do early childhood educators validate the information contained in these different sources? It is essential to consider their validation criteria, to recognize how they inform themselves and what sources they select, together with the importance of access to quality information that can complement the professional work of early childhood educators, both to benefit their training and that of the children in their classrooms.

6. Recommendations

In terms of projections, the study provides information that may be useful for developing comparisons with similar research, with participants at the same level, but in different educational contexts. The study seeks to understand the sources of information that guide the educational work of early childhood educators, to contribute to reducing the distance between the sources of scientific information and professional practice. Regarding the recommendations, the present study will allow both teachers and researchers to understand the sources that educators tend to use when faced with problematic situations. This understanding can contribute to favoring the use of scientific sources by educators by recognizing, on the one hand, the problems that most lead educators to seek information from scientific sources. On the other hand, academics and researchers will be able to recognize clues in the sources consulted by educators that can help them to disseminate their scientific information differently.

7. Limitations

The present study was limited to female educators from only one region of the country, so it is advisable to increase the size and heterogeneity of the sample. From the methodological point of view, the research could be complemented with the application of a questionnaire, to have qualitative data that could complement the proposed qualitative analysis. Finally, regarding the tools used, a second stage of data collection could be included, such as a discussion group, to deepen the collective vision and the agreements reached by the participants when selecting sources of information, which could also contribute to the process of triangulation of the data.

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