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PRESCHOOL TEACHERS' VIEWS ON SENSORY EDUCATION

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ABSTRACT

The aim of this study is to reveal preschool teachers' views on sensory education. In the study, phenomenological design, one of the qualitative research methods, was selected. The study group of the research consists of 20 preschool teachers working in a city in Turkey in the 2022-2023 academic year. Maximum diversity sampling, one of the purposeful sampling types, was used to form the study group. A semi-structured interview form consisting of open-ended questions was used as a data collection tool. The data were analyzed using content analysis technique. As a result of the research, it was seen that preschool teachers had an average knowledge about sensory education It was determined that they carried out studies for the senses in all activities. Most of the participants stated that they did not have enough materials for the implementation of sensory education and that the physical conditions of their classrooms and schools were unfavourable. Sensory education supports children's developmental areas, family participation, physical and material equipment of the classroom and school are important in this process. It was concluded that pre-school teachers did not fully master the concept of sensation, but the benefits of sensory education and its contribution to children's developmental areas are important. according to research results; n-service trainings can be organised for teachers about sensory education and its importance in early childhood, occupational therapist support can be provided to pre-school institutions by working interdisciplinary at the point of sensory education and classrooms and schools can be supported in terms of sensory education materials, can be recommended.

Keywords: Sense, sensory education, early childhood

INTRODUCTION

Human beings continue their development process, which started in the womb, with a continuous interaction and learning process with their environment. The key point in the interaction of living things with their environment is the stimuli that are perceived by our sense organs. Sense is defined as the factor that activates the organism as a result of making sense of the stimuli received from the environment with the central nervous system (Çetin Sultanoğlu and Aral 2015). Our body's perception of stimuli both internally and externally through the senses forms the basis of the process of acquiring knowledge and learning. This process involves a cycle in which many senses actively work together. The senses begin in the womb and continue to develop throughout childhood, helping the organism to discover itself and its

environment and to create new experiences and learnings (Deretarla Gül, 2020). According to Kranowitz (2014), the senses have two tasks. The first one is to ensure that we continue our lives, that is, to make sure that we are safe, and the other is to contribute to our socialization by exploring our environment more actively with this sense of security. Living things can perceive the stimuli in their environment through seven different senses. The senses can be analyzed in two categories: external (exteroceptive) and internal (introseptive) senses. External sensory systems include our senses of sight, hearing, tactile, smell and taste. Our vestibular (balance) sense, which determines speed, movement and balance, and our proprioception (body awareness) sense, which allows us to have information about our whole body in all kinds of situations, constitute our internal senses (Albayrak Sidar, 2020).

Children experience many sensory experiences in the first eight years of their lives, which is referred to as early childhood. Babies, who are born with reflexes, transform these reflexes into conscious actions later on as a result of the rich experiences they acquire through their senses. The child is actively involved in this sensory enrichment process. This situation reveals the importance of learning environments and learning opportunities that will be offered by carefully considering children's age and developmental characteristics (Deretarla Gül, 2020). Many researchers and philosophers who have guided and pioneered the development of early childhood education have emphasized that the education to be given to children during these years should be of a certain quality that will allow them to develop their senses and actively use many of their senses. In Orbis Picturs, the first picture book, Comenius used objects and pictures together and stated that the best learning in children would occur through the senses. Similarly, Pestalozzi, Rousseau and Frobel also advocated that children be educated through their senses (Oktay, 2004). At this point, it is necessary to implement, examine and follow programs based on senses and sensory education, especially in early childhood. When the 2013 pre-school education program is examined, it is seen that the outcomes and indicators in all developmental areas include remarks about the senses and the support of the senses.

During childhood, when the senses are actively used, children create learning experiences as a result of their interaction with the environment. The fact that children discover and recognize the environment with their senses reveals the importance of conscious sensory education (Ceylan, Beşir, & Korkut, 2021). When the literature is examined, it is seen that studies on the importance of senses and sensory education both in Turkey and in other countries focus on certain areas. Previous studies have focused on preschool children's eating habits and eating perception (Coulthard & Appetite, 2017; Mustonen, Rantanen, & Tuorila, 2009; Reverdy, Schlich, Köster, Ginon, & Lange 2010; Coulthard, Williamson, Palfreyman, & Lyttle, 2018), child education, special education and approaches (Abubakirovna, 2021; Muhammadaminovna, 2020; Xu, & Wu, 2021; Case-Smith & Bryan 1999; Dunbar, Carr-Hertel, Lieberman, Perez, & Ricks, 2012; Park, Park, & Kim, 2021; Kim, Kim, Chang, & Jung, 2021). When we look at the studies on sensory education in Turkey, it is seen that they are concentrated in the fields of special education, nursing and physiotherapy (Huri & Kaya, 2015; Özakın, 2018; Fil et al. 2014; Pekçetin, 2015; Balıkçı et al. 2021). Looking at the postgraduate studies conducted in Turkey, Gül Aksu (2013) reported the effect of sensory-based education program on the acquisition of animate and inanimate concepts of five-six-year-old children, Yazıcı, Kandır and Yaşar (2014), reported the effect of sensory education on the creativity of 61-66-month-old children attending preschool education institutions, Tekerci (2015), investigated the effect of sensory-based science education on science process skills in 60-66 month old children, and Yazıcı and Kandır (2015), investigated the effect of sensory education on the development of literacy skills in 61-66 month old children receiving preschool education, Koyuncuğlu (2017), examined the effect of sensory education program on the

creative thinking skills of four-five year old children in kindergarten, Yıldırım Doğru and Çetingöz (2017), examined the effect of sensory integration program presented with Montessori materials on the receptive language development of children with autism, Ölekli (2021), examined the effect of "Sensory-Based Preschool Mathematics Education Program Supporting Mathematics Skills" on the mathematics skills of 60-72 month old children.

There is no study conducted to determine preschool teachers' views on sensory education and classroom practices. In this direction, it is believed that this study will also contribute to the literature. This study was aimed to examine preschool teachers' views on sensory education and their classroom practices in depth. In this direction, answers to the following questions were searched:
1. What are preschool teachers' views on the importance of sensory education?
2. How are preschool teachers' classroom practices related to sensory education?
3. What are the difficulties and limitations of preschool teachers regarding sensory education?

METHODOLOGY

Research Design

Phenomenological design, one of the qualitative research methods, was used in the study. Phenomenological design focuses on phenomena that one is aware of however, does not have an in-depth and detailed understanding of. Phenomena can take place in the world in various forms such as events, perceptions, experiences, orientations, concepts and situations. Phenomenology constitutes a suitable research ground for studies aiming to investigate phenomena that are not completely foreign to individuals and whose full meaning cannot be grasped at the same time (Yıldırım & Şimşek, 2013).

Study Group

While selecting the study group, maximum diversity sampling, one of the purposeful sampling types, was used. According to Yıldırım and Şimşek (2013); the purpose of using maximum diversity sampling is to create a relatively small sample and to reflect the diversity of individuals who may be parties to the problem being studied in this sample to the maximum extent.

In this context, in order to ensure maximum diversity in the study, teachers' ages, graduations, working institutions (kindergarten, nursery school, practice nursery school), places of work (province, district, village), age groups and professional seniority were given importance. Moreover, in this sampling method, the aim is not to generalize to the universe by providing diversity, but to determine what kind of commonalities or similarities exist between diverse situations. According to Patton (1987, as cited in Yıldırım & Şimşek, 2013), there are at least two benefits of forming a small research group with maximum diversity: (1) to describe in detail the unique dimensions of each situation included in the study group, and (2) to reveal common themes that may emerge between situations with substantially different characteristics and their value. Accordingly, the study group consisted of 20 preschool teachers working in kindergartens in primary schools, kindergartens in secondary schools, kindergartens, practice kindergartens in vocational high schools, and private kindergartens, and schools in different

settlements (village, district, town center).The demographic information about the participants is presented in the Table 1.

Table 1
Demographic Information of Teachers

Teacher	Age	Educational Level	Experience	Working age group	Place of settlement
T1	47	BA	27	60-72 Months	District
T2	51	BA	27	48-54 Months	District
T3	35	MA	13	54-60 Months	District
T4	43	BA	13	54-60 Months	District
T5	44	BA	14	60-72 Months	District
T6	31	BA	10	60-72 Months	District
T7	40	BA	20	48-54 Months	District
T8	33	BA	9	48-72 Months	District
T9	40	BA	15	60-72 Months	Town center
T10	44	BA	13	60-72 Months	Town center
T11	43	BA	21	54-72 Months	Town center
T12	44	BA	21	54-72 Months	Town center
T13	35	BA	13	54-72 Months	District
T14	36	BA	14	60-72 Months	Village
T15	26	AA	2	48-60 Months	Town center
T16	28	AA	5	48-54 Months	Town center
T17	27	AA	4	48-54 Months	Town center
T18	26	BA	8	48-72 Months	Town center
T19	31	MA	7	54-60 Months	District
T20	27	MA	4	48-54 Months	District

Data Collection Tools

Within the scope of the study, data were collected with a semi-structured interview form created by the researchers. While creating the interview form, a pool of questions was created by reviewing the relevant literature, and similar questions were eliminated. The interview form was revised accordance with the evaluations of 2 professors, 2 associate professors and 1 preschool teacher. The data of the study were collected with a semi-structured form consisting of 12 questions. The first part of the interview form included personal information and participant consent, and the second part included questions. The participants' consent was obtained and the data were recorded with a voice recorder. At the end of the interviews, it was stated that the recordings kept at the end of the interviews could be listened to by the participants and that the recordings could be deleted partially or completely when necessary. In this way, it was tried to prevent the pressure and negativities that the recording device may cause on the participants.

The data collected through voice recordings were transcribed, edited and the participants were allowed to read these data, and participant confirmation was ensured by evaluating the integrity of the data, the adequacy of the analysis in reflecting their own realities, and whether the results were related to their own perceptions and experiences. The data obtained were reorganized according to the concepts and themes, without adding interpretation

and remaining faithful to the essence of the data. Meetings were conducted face-to-face and lasted an average of 30 minutes.

Data Analysis

The data collected in the study were analyzed using content analysis technique. Content analysis was used to analyze the data obtained through semi-structured interviews. The following steps were followed while analyzing the data; 1- Coding the data 2- Determining the themes of the coded data 3- Organizing the codes and themes 4- Defining and interpreting the findings (Yıldırım & Şimşek, 2008). In the analysis of the data, first of all, the speeches were transcribed into text and detailed readings were made on the texts. The data obtained in the study were evaluated independently by the researcher and a field expert, and codes were created for each question. The data evaluated independently by the researcher and a research expert were compared and the codes of the data were created by discussing similar and different codes. Categories were created by considering the common points of the codes. The categories were thematized in line with the sub-problems. Accordingly, 81 codes were collected under 9 categories and 3 themes.

RESULTS

The opinions of the teachers participating in the research were analyzed, and the categories and themes were presented in tables. As a result of the research, 3 main themes were identified. These are the importance of sensory education, the relationship between sensory education and the preschool education program, and the theme of difficulties and limitations in sensory education.

The importance theme; It includes the categories of the importance of sensory education, its impact on children's developmental areas and supporting sensory education. The categories and sample expressions related to the importance theme are given in Table 2.

Table 2
Teachers' Views on the Theme of Importance

Theme	Category	Example statements
Importance	The importance of sensory education	T1: .....I mean it is important, definitely, I think the foundation of education is very important... T3: I think it is an education that should be given and should be integrated into the education process... T5: ...it should be given to every child, but I think it should be started earlier, this education should start from infancy... T6: It is important that every child should benefit....I have even read that it is the cause of eating problems. T9: It is definitely a necessary education ... children's age level, developmental level ... it should definitely be given after knowing the child in all its dimensions. The tree bends at an early age...
	Importance In Child Develop	T11: I mean, of course, it contributes to developmental areas....for example, cognitive area....language area....in other words, every area.

continued

	T13: It contributes to developmental areas....it contributes to thinking skills...it does.... T20: ....It definitely affects developmental areas, for example, hearing directly affects language development or thinking development, maybe because they are all interconnected... We have 5 sensory organs, after all, the lack of one affects the other...
Supporting sensory education	T19: The teacher should develop alternative and creative ideas and, if necessary, take trainings on this subject and improve himself/herself. There are such examples in digital environments that will attract children's interest..... suitable for the time.... so that we can increase our creativity T15: .... should be included in the curriculum and given compulsorily within the plan and program... T13: ...should be given in every environment, enriched environments should be offered... children should always be given opportunity education. T12: Support or trainings can be received from experts on sensory education.... T10: It should be included more in the plan and program.....appropriate materials should be prepared....other....children's needs should be determined and the class should be organized if necessary... T9: Definitely the support of the family should be taken.... T6: should be supported with experiments by doing-living and homework at home if necessary..... T4:.... Even when they play with toys, their senses develop when they look at them...all their senses are working....in activities...even in self-care skills, sensory training is done...supported...

All participant teachers emphasized that sensory education is important, that it is an education that should be given especially in early childhood, and that it should be integrated into the daily routine. In particular, it was stated that sensory education contributes to the development of children. In the category of the effect of sensory education on children's developmental areas, teachers generally stated that sensory education plays an important role in supporting all developmental areas. In addition, they stated that it improves language, social emotional, cognitive and self-care skills. According to the data obtained in the category of supporting sensory education, teachers stated that sensory education is very important in early childhood and that it should be supported and sustained. In this context, they stated that in order to support sensory education; planned and programmed activities should be prepared, appropriate materials should be presented-prepared, children's needs should be determined, individual support should be provided to children, activities should be diversified, enriched environment should be prepared, activities should be started at an early age, they should be presented with games, teachers should receive training on sensory development, children should be provided with environments where they can experience by doing-experiencing, and family support should be provided.

The theme of relationship with preschool education program: It includes the categories of including sensory education in preschool education program, including sensory education

in daily flow, evaluation of sensory activities and family participation in sensory activities. The categories and sample expressions related to the theme of the relationship with the preschool education program are given in Table 3.

Table 3
Teachers' views on the theme of relationship with preschool education program

Theme	Category	Example statements
Relationship with preschool education program	Including sensory education in preschool education program	T2: Training seminars can be given on this subject.... T3: We give them in the activities, but the interest of the teachers is very important in this subject....it is important that the teacher is knowledgeable... otherwise there is no planning..... T6: It is included in the program, of course, but the teacher has to prepare and implement them. T7: it is not very clear, it only touches on basic subjects...it covers it on the basis of activities... it is not clear... T9: In general, we don't like the program anyway..... inadequate...we provide sensory education with concepts with our own efforts. T11: There are enough achievements, indicators and concepts in the program, but there are problems in practice, the number of classes, for example, affects a lot...in crowded classes... ....
	Including of sensory education in the Daily Plan.	T16: We use music, rhythm, voice intonation while reading a story...then puppets. T14: For example, I use pop-it, there is a center about it in my classroom, squiz style materials, sponge, ... I plan activities related to them, then body percussion exercises... T9: I do musical activities, texture activities-they touch different surfaces, rough, smooth, slippery, etc.-, we do visual activities, we use the smart board... we try to appeal to children in both sensory and emotional sense..... T5: In general, we do rhythm studies with children, visual studies.... cutting-pasting-painting etc., they play with play dough... they touch the plates with different textures such as rough and smooth, hard and soft .... Then... Legos, colors, different materials...
	Evaluation of sensory activities	T20: While making the evaluation, I make an observation-oriented evaluation such as can the child sing the song, can he/she complete the lines, can he/she extract the words, at what stage is the child, how much have I reached, what more can I do? T17: I do the evaluation by observation, not by putting it on paper, how much progress has the child made from the first moment until now, what can he/she do, scissor skills, relationship with friends, etc. We fill in the development observation forms accordingly.

continued

	T13: Answering questions, the child's reactions... I always do question-answer, can they answer my questions? I observe their behaviors and reactions.... T9: I take notes in the agenda, for example, daily situations and I cooperate with the family... we already specify in the adaptation section of the plan.
Family participation in sensory activities	T1: stories can be read with story reading cards....I can't think of any other... T3: Parent-teacher communication is very important, that bond of trust established between them...in this direction, parents should be made aware and they should be able to communicate easily about the health status of the child... T6: Family activities can be planned and implemented at home. For example, experiments can be done... T8: Actually, in order to give the message to the parents that you are also involved in education, we should involve them in the process... They can be invited to the classroom to do experiments, or another study... I think it should be T10: I think we should raise awareness in the parents, the parents should focus first... for this, individual interviews should be held, a common point should be reached in a common language, communication is very important, that is, a correct and strong communication should be established. T12: parents can be informed, planned seminars, information meetings..... T18: In family participation, first of all, the parents should be relaxed, activated, the right electricity should be caught with the children, and I think they should be given a short taste of teaching...

It was stated that sensory education is not sufficiently included and clearly expressed in the preschool education program. Most of the participants stated that sensory education is included in the pre-school education program, achievements and indicators, and concepts, but it is not sufficiently and clearly mentioned. When the sensory studies that preschool teachers stated that they planned and implemented in their daily routines were analysed, it was determined that visual studies, auditory studies, games, music-rhythm studies, experiment studies, art studies, touch studies, kneading materials, drama studies, balance games were generally given in all activities. When the data on how the participants evaluated the sensory activities they implemented in their daily routines were analysed, it was seen that they responded as follows: development-observation forms, observation, age, interest, developmental status of the child, question-answer, family cooperation, no evaluation. When the answers of the participants regarding family involvement activities in the perspective of sensory education were analysed, it was determined that seminar-training, teacher-parent communication, individual interviews, family activities at home, in-class activities, I could not comment.

Challenges and limitations theme: Physical and equipment facilities of the school and classroom and teachers' self-efficacy perceptions. The categories and sample expressions related to the difficulties and limitations theme are given in Table 4.

Table 4
Teacher views on the theme of difficulties-limitations

Theme	Category	Example statements
Challenges and limitations	Physical and equipment facilities of the school and classroom	T20: There is a playroom in our school, but only four walls, one area can be covered with a soft floor, it can be organized for different senses, maybe there can be a sound room... partially sufficient T19: I think the environment affects this education. There can be sensory materials in the centers, they attract children's attention ...even a model of the world is very interesting to them, they examine it... there can be rhythm instruments, orff materials, bells.... T17: The facilities of our school and classroom are sufficient, we are equipped with materials, but this education should not be limited to the classroom and school, this education should go out into nature, observation should be made, activities should be done with families... T14: When I first came to the class, it was quite unfavorable due to the conditions and the settlement situation, I try to do my best, but I lack a lot of materials and the physical conditions are not suitable at all... we have a huge garden but we cannot plant, we cannot go out... T11: physical conditions are not sufficient at all. for example, I have a student who plays the piano in my class and the children want to listen to it. I would like to have a piano corner in this classroom.... T6: The physical conditions of our school are not suitable, we need a lot of additional materials. We design some materials with our own efforts, for example, there is nothing related to the sense of touch, we are pushing the possibilities in the classroom.
	Teachers' self-efficacy perceptions	T3: I can apply it as much as I can integrate it into my daily plan, of course the age group is also very effective, it can be concentrated, it is necessary to spend time, I can receive training on this subject... T4: I am competent, of course this is our job... I can get education in science T6: I am competent but it would be very good if we received training, there are many things I don't know. T7: My deficiency is too much...actually I evaluate myself with every child...I improve every year...I try to give enough space to all senses T13: We are in a constantly changing world... theories are changing... Information should be updated, I mean I am not enough... T19: I have weaknesses. More thought can be given to this issue and qualified activities can be done, but it takes a lot of time to give

continued

	the concepts in the program, I spend a lot of effort and there is no time left...I design activities in the best way I can.

The participants stated that they did not have enough materials for the implementation of sensory training and that the physical conditions of their classrooms and schools were unfavorable. At the same time, it was determined that the level of competence of the participants in coping with sensory integration problems was not sufficient and almost all of them wanted to receive training on sensory integration problems.

DISCUSSION AND IMPLICATIONS

In this study, it was aimed to determine preschool teachers' views on sensory education and their classroom practices. Sensory education is an active process that starts from the first years of life and builds the basis of maturation and learning processes that support brain development through the voluntary use of the senses, as well as supporting the child's wonder, interest and imagination (Tekerci, 2022; Deretarla Gül, 2020; Koyuncu, 2022). Aral and Sultanoğlu (2015), argued that sensory development develops rapidly in early childhood years along with other developmental areas; children who are deprived of sensory stimuli or whose sensory development is not supported during this period may experience developmental problems in different areas and that may negatively affect their entire lives. Emphasizing the importance of sensory development, Özata (2015), stated that the more sensory organs infants and children use at the same time, the higher the level of retrieval of information, as well as the ability to encode information in a multidimensional way, and thus the longer the retention of learning will be ensured. As a result of the research, it was determined that the majority of preschool teachers have a general knowledge about sensory education.

Sensations are known as signals perceived by the sense organs. Although people state that they have five senses, recent studies have revealed that they actively have 7 senses (sight, hearing, smell, touch, taste, proprioceptive, vestibular), (Kronowitz, 2005; Özyazıcı vd., 2021; Koyuncuoğlu, 2022). Almost all of the participants in the study expressed the signals received from the sense organs as 5 senses and reported that they plan their activities accordingly. It was determined that some teachers had confusion between the terms "sense" and "emotion". It is thought that this confusion is due to the similarity of the spelling and pronunciation features of both terms in Turkish.

It has been determined that sensory-based programs contribute to the development of children's literacy preparation skills, mathematics skills, creative thinking skills, and scientific process skills (Yazıcı ve Kandır, 2014; Tekerci, 2015; Pekçetin, 2015; Ölekli Sönmez, 2012; Aksu, 2013; Koyuncuoğlu, 2017). As a result of this study, all participants stated that sensory education contributed to children's developmental areas. This finding of the study is in line with the results of sensory-based studies.

In the first years of life, which includes early childhood, it is necessary to prepare environments where children can freely experience and promote the development of their senses. It is known that the interaction of the stimuli that the child will encounter in the home and educational environment with multiple senses will contribute to the child's experience of effective and long lasting learning experiences (Akça ve Bıçakçı, 2015; Berk, 2013; Özata, 2015; Sidar Albayrak, 2020; Deretarla Gül, 2020; Ölekli Sönmez, 2021). Bee ve Boyd (2009), stated that the synaptic connections that develop in the brain as a result of the environment

prepared with rich sensory stimuli are an important factor in children's acquisition of higher and complex cognitive skills. As a result of the research, it was determined that sensory education in early childhood is a process that can be supported with individual support, enriched environments suitable for their age and needs, with play and different activities, materials and in cooperation with the family.

It was noted that sensory education is not sufficiently included and clearly stated in the preschool education program. Most of the participants reported that sensory education is included in the preschool education program, outcomes and indicators, and terms, but it is not sufficiently and explicitly. Tekerci (2022) and Eti (2020), stated in their study that the term "sensory education" is not directly included in the 2013 preschool education program, but there are statements about sensory education in the outcomes and indicators in all development areas. It was noted that teachers were flexible enough to include learning processes that would support sensory development in their planning. In the view of this information, this finding of the study does not overlap with the findings of other studies in the literature. This is thought to be due to the fact that teachers do not yet have a good command of the preschool education program. It was determined that the participants included sensory activities in their daily routines. In this direction, it was determined that they carried out sensory studies in all activities such as experiments, plays, drama, art, music-rhythm studies, mixing materials, visual and auditory studies, etc. Tekerci (2022), reported that teachers can create rich learning environments that will appeal to children's multiple senses with different types of activities (Art, Travel, Turkish, Music, Drama, etc.) within the scope of the program. Goodwin (2008), found that most of the teachers used sensory activities such as music, movement, artistic activities, gardening, play activities, visual stimuli, sensory table, tasting, smelling activities in music, movement, artistic activities, gardening, and play activities to a limited extent and that they were inadequate in this context. In their study, Manja et al. (2022), stated that it is important to implement activities that appeal to multiple senses in early childhood education. At the same time, it was reported that it is important for teachers to include various activities such as art activities, visual perception studies, music and movement, and activities related to the senses of taste and smell.

It was found that the participants prioritized activities that are applicable to children's readiness levels, age and developmental characteristics, interests and needs while planning sensory activities in their daily routines. Preschool teachers are very important in the activities to be prepared in early childhood. It was stated that the teacher should prioritize the development of children in the activities to be prepared and is responsible for preparing the content that will have the best effect for them (Manja et all., 2022).

It was determined that the participants evaluated the sensory activities they implemented in their daily routines according to the feedback they received from the child and the teacher's observations. It was determined that the participants implemented family involvement activities within the scope of sensory education: information, individual interviews, planned trainings and seminars, communication, activities to be done with the child in the classroom and at home. Roley et al. (2009), reported that sensory-based strategies integrated into the educational process, carried out by teachers, educational assistants or volunteer parents, produce positive outcomes for children.

Most of the participants reported that they did not have sufficient materials for the implementation of sensory education and that the physical conditions of their classrooms and schools were unfavorable. The importance of sensory activities has been recognized by the National Association for the Education of Young Children (NAEYC) in the USA. It advocated

that early childhood classrooms should include a variety of sensory materials such as sand, water, play dough, paint, crayons, markers, glue and blocks (NAEYC, 2005). Alwaqassi (2017), reported that there are mostly visual, auditory and tactile communication materials in the classroom, but the presence of different types and numbers of alternative sensory materials in the classroom is an effective way to increase the motivation of the teacher.

It was determined that the participants should be trained as a practitioner of sensory education. Sadoun (2013), investigated the knowledge of teachers who teach early childhood students in the United Arab Emirates about sensory processing disorder and found that between 49% and 63% of the respondents believed that more training on sensory processing disorder was necessary. He conducted his study with 50 classroom teachers and revealed that more than 60% of the teachers could not distinguish between sensory integration problems and behavior problems, and therefore they were inadequate in solving the problem situation. It also showed that the participants' level of competence in coping with sensory integration problems was not sufficient, almost all of them wanted to receive training on sensory integration problems and thought that sensory integration was a subject that should be given importance. In his study, Alwaqassi (2017), stated that courses or trainings are needed for teachers to understand the processes that address multiple senses and to use them in accordance with the needs of children.

As a result of this study, it was determined that preschool teachers did not fully master the term "sense". However, teachers identified the benefits of sensory education and its contribution to children's developmental areas as significant. It is seen that sensory education can be supported in the classroom with different types of activities such as art, music, science, math, outdoor activities, language activities and especially plays. The classroom and school being equipped with materials to support the senses and improving the physical conditions will ensure the effective implementation of multi-sensory activities to be offered to children. It is known that the outcomes and indicators in the preschool education program implemented in our country support the senses. The program offers flexibility for teachers to implement child-centered activities based on children's interests and needs while preparing activity types and activities to be carried out within this context. It is seen that teachers want to receive training in different fields for their professional development by making their own self-evaluations about sensory education and other issues that will support children's development.

Recommendations

1. On the topic of sensory education and its importance in early childhood, in-service trainings can be organized for teachers.
2. Occupational therapist support can be provided to preschool institutions by working interdisciplinary at the point of sensory education.
3. Pre-school classrooms and schools can be supported with sensory education materials.
4. Sensory education can be included much more in undergraduate education.
5. Sample activities for sensory education can be prepared by occupational therapists and teachers.

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