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Perspectives of Service Providers on Supports for Students with Autism Spectrum Disorders in Iran.

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Abstract

In this study, we contribute to the limited database on the perspectives of service providers including teachers, speech therapists, occupational therapists, and psychologists working with students with ASD in Iran. Specifically, we examined the types of supports received, challenges faced, the collaboration between providers and families, and overall job satisfaction. Data in this qualitative study were gathered through the use of semi-structured, open-ended individual interviews conducted remotely and were analyzed using thematic analysis to identify patterns of meaning. Overall, findings indicated that most participants felt unsupported in their role as service provider and identified a number of challenges to effectively perform their jobs. These challenges included lack of appropriate space and/or equipment, training, financial compensation, and support for families. Positive aspects of the job include collaborating effectively with other professionals and overall job satisfaction. Implications for educational and governmental agencies are provided, along with limitations of the study and suggestions for future research.

Keywords: autism, Iran, service providers, supports, qualitative research

The number of students with autism spectrum disorders (ASD) has been rapidly increasing. ASD is a developmental disorder characterized by differences in social communication and social interaction, along with restricted, repetitive patterns of behavior, interests, or activities (American Psychiatric Association, 2013). Language impairments and intellectual disabilities may also accompany these differences (American Psychiatric Association, 2013), though these characteristics vary by individual. According to the World Health Organization (2019) one in 160 children worldwide is diagnosed with an ASD; rates vary, however, across the world. Well-developed countries typically report higher prevalence, with less-developed countries reporting lower rates, perhaps because of less awareness, fewer trained professionals to identify ASD, or poorly defined diagnostic criteria in these countries (Samadi & McConkey, 2013).

One less-developed country in which awareness of ASD is increasing is Iran (Samadi & McConkey, 2011). The prevalence of people with ASD in Iran is unknown and is purported to be underreported (Samadi et al., 2012), but there are far fewer students with ASD enrolled in schools in Iran than would be expected, based on World Health Organization estimates (Human Rights Watch, 2019). In 2018, for example, 7,000 school age children were diagnosed with ASD, but only 2,442 children were enrolled in schools (Human Rights Watch, 2019). Some students are denied access to schools, based on a medical assessment and IQ test that is given to all six-year-old children in Iran to determine whether they can enter school (The Center for Human Rights in Iran, 2019). In fact, a governmental study conducted in 2017 found that disability was the number one reason students were not enrolled in school (Human Rights Watch, 2019).

There are other reasons students with ASD may not attend school. First, there is a stigma associated with ASD (Samadi & McConkey, 2018). Many families keep their children with ASD at home rather than bringing them out into the community, since students with disabilities may still be negatively stigmatized and considered "retarded" in Iran (Sharifian, 2018). Families often are concerned that they will be judged, or their child will be bullied (Human Rights Watch, 2019). The second reason is related to the availability of schools. There are few state-funded schools that will accept students with ASD, and most of them are located in the main cities such as Tehran and Mashhad (Azizi, 2019). Since the government cannot provide transportation to school, attending these schools creates an immense economic burden for many families (Mosadeghrad et al., 2018; Zarafshan et al., 2019); thus, many children with ASD do not get an appropriate education (Azizi, 2019). This is especially the case for female students with ASD. Indeed, it was not until October 2018 when the first school for females with ASD opened in Iran (School for autistic girls opened in Tehran, 2018). Prior to that, girls with ASD were mostly kept home and excluded from the opportunity to attend school.

When students with ASD are enrolled in schools, they are often in segregated rather than inclusive environments, with more than half of students with ASD in Iran being enrolled in special schools (Samadi & McConkey, 2018; Zarafshan, et al., 2019). There is a shortage of teachers in Iran, and even those teachers in specialized schools are insufficiently trained to work with students with ASD (Human Rights Watch, 2019; Sharifian, 2018). There are no ASD-specific training programs such as those provided for teachers of children with other disabilities (Samadi et al., 2020), and some teachers have no experience or education at all in working with students with disabilities (The Center for Human Rights in Iran, 2019). This results in a high level of teacher stress. In fact, teachers in Iran reported significantly higher levels of stress when working with children with ASD when compared to students with other disabilities such as intellectual disabilities (Zarafshan et al., 2013). Staff attitudes may also be a barrier, if the teachers and practitioners do not believe that their students with ASD belong in school (Samadi et al., 2020). Finally, appropriate accommodations and services, both material and personnel, are often not available for students. There is a lack of sufficiently trained personnel to support students with ASD in both public and private schools (Samadi et al., 2020). Frequently, parents must attend school with their children in order to help support them in the classroom (The Center for Human Rights in Iran, 2019). Teachers have reported the lack of materials and special equipment as an additional barrier in providing an appropriate education for their students with ASD (Samadi & McConkey, 2018).

All these factors have an impact on students' success and later contribution to their local and global community. Educational experiences are influenced not only by a student's abilities, but also by policies, practices, and beliefs in society. According to Bronfenbrenner's (1979) ecological systems theory of human development, there are many layers of influences the environment has on a child's development, including their education. Bronfenbrenner posits layers of society that influence development, including the individual, microsystem (the most proximal system to the individual, such as caregivers, teachers, and peers), mesosystem (individual relationships to the organizations around them), exosystem (connections between organizations, that may or may not affect the individual directly), and the macrosystem (the larger cultural or social context of society). In the context of this study, we examine how several of these systems affect the education of the individual (students with ASD). The microsystem involves the perspectives and interactions with families and service providers, whose well-being, satisfaction, and attitudes toward autism may directly affect the individual. The mesosystem looks at the interactions of organizations around the individual, such as family, school, church, neighborhood, and clubs, and the relationships between these organized groups. The focus of this research specifically examines the relationship of the family and the school. The exosystem includes federal and/or community policies, school funding, workplace policy, and the availability of community resources, which may influence the experience of an individual with ASD directly, or indirectly through its effect on their families and service providers. The final layer is the macrosystem, including beliefs, services, socioeconomic status and the school system and laws in Iran regarding the education of people with disabilities such as ASD. As a result, the educational experiences of people with ASD must be looked at in consideration of all these factors and how they interact over time, known as the chronosystem (Bronfenbrenner, 1979).

Although research exploring ASD in Iran has increased in recent years (Zarafshan et al., 2017), few studies have examined the supports received by teachers and service providers. In this study, we contribute to the limited database on the perspective of service providers including teachers, speech therapists, occupational therapists, and psychologists supporting students with ASD in Iran. Specifically, we examined the types of supports received, challenges faced, the collaboration between providers and families, and overall job satisfaction.

METHODS

Setting and Participants

Participants in this project included 14 participants (six teachers, four occupational therapists, one speech therapist, and three psychologists) who worked with

children with ASD in special education schools and private clinics in three cities in different provinces across Iran: Tehran city in Tehran province, Orumieh city in West-Azarbaijan province, and Sananadaj city in Kurdistan province. Most (n=13) of the participants were female, which is not surprising since approximately two thirds of teachers in Iran are reported to be female (Sohrabi, 2017). Six participants (42.9%) were Kurd from Sananadaj, 6 participants (42.9%) were Persian from Tehran, and 2 participants (14.3%) were Kurd from Orumieh. Eight participants (57.1%) held bachelor's degree, with 5 participants (35.7%) holding master's degree and one participant holding an associate degree. Degree areas included occupational therapy, special education, clinical psychology, mathematics, speech therapy, and educational management. Participants' years of experience ranged from one to twenty-three years. Six participants reported they did not have any formal training in educating students with ASD. Five participants reported having completed an internship or receiving intensive training in a specific education technique, such as applied behavior analysis, and four participants reported attendance at one or more workshops about ASD. Because most students with ASD are educated in special schools that include a variety of service providers, and we believe a multi-disciplinary approach is best to support students with ASD (LaFrance et al., 2019), we sought to obtain a variety of perspectives; thus, multiple service providers' responses are included and presented together.

Due to the challenges with recruiting participants from Iran, we used a convenience sample, obtained by asking a mutual colleague to share information on our study (see Procedures section). See Table 1 for participant information.

Instrument

A list of interview questions was developed for use in this study. The purpose of the instrument was twofold: first, to identify basic background and demographic information on the participants, and second, to probe the participants as to their perspectives of working with children with ASD in their respective schools in Iran. Questions were created based on a review of previous research that examined perspectives of service providers of children with ASD (outside of Iran) and on current limited information regarding educating students with ASD in Iran.

Procedures

In this study data were gathered through the use of semi-structured, open-ended individual interviews conducted remotely. The goal of the interviewing process was to capture data for a qualitative analysis of the experiences of teachers in working with children with an ASD. The recruitment process was as follows: (1) Upon receiving Institutional Review Board approval, the second author contacted a colleague who was a teacher in Iran to discuss the study. After explaining the purpose of research, she was asked to help recruit potential participants (teachers, therapists and/or psychologists) for the study through personal connection. (2) If potential participants were interested in taking part in the study, their phone numbers were sent to the second author. (3) After gaining participants' phone numbers, each participant was contacted via telephone, and the purposes and procedures of the study were explained in full. (4) After obtaining consent from each participant, a suitable time was agreed upon for the interview to be conducted.

Prior to the start of each interview, the interviewer reiterated the purpose of the study, explained how the interviews would be recorded and transcribed, explained the use of pseudonyms and their rights to confidentiality. The interviews were conducted via the WhatsApp application in the Persian and/or Kurdish language (as per the participant's request). A standard set of interview questions were asked to each participant. If necessary, additional questions were generated based on the participant's response, the need for further clarification, and/or the insight gained during the process. The average time of interviews was 40 minutes. All interviews were voice recorded, transcribed, and translated to English. Member check occurred before translation to English, in that we shared the transcribed interview with the participant to check for accuracy.

Research Design and Analysis

The data in this qualitative study were analyzed using thematic analysis, a technique used to identify patterns of meaning in qualitative data (Lyons & Coyle, 2016). This is achieved through the use of data coding to help identify concepts in chunks of data. An inductive approach was used in order to allow themes to emerge from that data and allow for new theories to be elucidated through the analysis of the data. Coding in an inductive manner involves the use of novel codes to organize data. This approach identifies the key ideas within chunks of data that are of potential interest to the research question and begin to capture the interpretation of the data. From these codes, themes are identified that help to organize the data further. Through an iterative process, themes are revised and refined in a way that clearly relates to the research question (Lyons & Coyle, 2016). Using the raw data, two researchers carried out the data analysis using this method.

Each researcher independently engaged in familiarization and a first round of coding. During familiarization, each researcher read and reread the data until they were familiar with the content and felt comfortable starting the process of coding. Using the data, each researcher created novel codes to organize the data around emerging themes and patterns within the data. Once both researchers competed these steps, they met to discuss their findings and come to consensus on a list of codes that would be used for the next round of analysis (see Table 2). During

Table 1
Participant Information

Participant	Position	Years in Education	ASD training	Degree*	Gender
1	Teacher	8	"several one-day or half day intensive courses…"	Exceptional Children (B)	Female
2	Occupational Therapist	3	"Workshops… In college, a practical internship course."	Occupational Therapy (M)	Female
3	Psychologist	5	"A six month internship…."	Clinical Psych (M)	Female
4	Psychologist (ABA therapist)	4	"Yes, as an intern for 2 months…	Clinical Psych (M)	Female
5	Teacher	9	"No, because I have an autistic child, all my knowledge is based on my experience."	Education (B)	Female
6	Teacher	23	"Because of my personal interest, I was trained by (expert) for several months	Clinical Psychology (B)	Female
7	Occupational Therapist	1	"Yes, I participated in two 2-day workshops.. each of which was eight hours long."	Therapeutic Work (B)	Female
8	Psychologist (Neuro-therapist)	4	"I attended thirty-six days workshops, an intensive three-day …workshop, a 16-hour workshop...	Clinical Psych (M)	Male
9	Teacher	1	"I only attended workshops… about autism recognition in theory."	Management (B)	Female
10	Occupational Therapist	3	"Not special training, only the courses at university."	Occupational therapy (B)	Female
11	Occupational Therapist	3	"Yes, we passed several internships courses."	Occupational therapy (B)	Female
12	Speech Therapist	1	"No, I haven't received any special training in speech therapy.	Clinical Psych (M)	Female
13	Teacher	2	"No, I just participated in two workshops in which we learn very basic things."	Primary Ed (A)	Female
14	Teacher	1	"No"	Mathematics (B)	Female

Note: * M = Master's degree; B = Bachelor's degree; A = Associate's degree

this meeting, the researchers also discussed the definitions of the codes being used to ensure they had a clear understanding of each one. Using these agreed upon codes, both researchers went back to the raw data and re-coded all data using only the new codes. Once the researchers completed this step, they again met to review their findings, went through each code and decided what pieces of data belonged under each code. There were very few discrepancies in the researchers' findings at this stage, indicating that there was a high level of reliability in the codes since the researchers independently placed the same pieces of data under each code and were in agreement on how the data was organized. At this point discrepancies were discussed until consensus was reached. Once these steps were complete, the coded data was used to extrapolate themes and main ideas gleaned from the study. Themes will be discussed in consideration of Bronfenbrenner's (1979) ecological systems theory.

Table 2
Coding table

Code	Subcode	Definition
Supports	Lack support	Individual states that they do not receive support (monetary, facilities, equipment) to help complete their job working with students with autism.
	Fully equipped	Individual states that they have all the equipment and facilities needed to support their students.
	Need therapists	Individual states that they need more therapists or need to improve relationships with therapists in order to meet student needs.
	Need equipment	Individual states that they need more specialized equipment (technology, toys, therapy equipment) to meet student needs.
	Need space	Individual states that they are in need of a proper or more suitable environment to meet student needs.
	Financial support lacking	Individual states that finances are a major issue for schools and families due to lack of public support.
Additional Challenges	Lack family support	Individual states major challenge is lack of support from families including awareness and acceptance.
	Individual differences	Individual states that uniqueness (individual differences) within the autism population is a challenge.
	Location	Individual states that location is a determining factor for availability of resources and can pose a challenge.
	Lack of training	Individual states that lack of training for those working with students with autism is a challenge.
	Late diagnosis	Individual states late diagnosis of autism is a challenge.
Collaboration	Yes, educate parents	Individual states that they work with parents and play a role in parent education about autism.
	Families are dissatisfied	Individual states that families are dissatisfied with the education system regarding their child.
	Families are satisfied	Individual states that families are satisfied with the education system regarding their child.
	Teachers collaborate	Individual states that teachers in their school/program work together through collaboration.
	Lack teacher communication	Individual states teachers do not work together effectively and communication is lacking.
	Work alone	Individual states that they work alone and therefore do not participate in communication or collaboration with other teachers.
Job Satisfaction	Satisfied with job	Individual states that they are satisfied with their job.
	Not financially satisfied	Individual states that they are not satisfied with their job due to financial reasons.

Validity, Reliability and Trustworthiness

We used the following strategies, as suggested by Merriam and Tisdell (2016), to ensure this research was trustworthy: *triangulation*, through multiple independent coders who conducted inter-rater reliability checks, and engaged in discussion until consensus was reached; *member checks*, by having the participants read through the transcripts and confirm accuracy; *researcher positionality* (see below); *audit trail*, by providing a detailed account of data analysis process; *rich thick descriptions* of participants, setting, and process as well as interview findings; and *maximum variation,* through the use of

contrasting cases by interviewing teachers, therapists and psychologists to allow for a greater chance of generalizability of findings.

Researcher Positionality

The first author is a doctoral level scholar of research exploring best practices in supporting students who identify as autistic. She is a university professor and former teacher of students with ASD. She had no experience interacting with Iranian teachers or students and had minimal understanding of laws and policies in Iran prior to the study.

The second author is a doctoral student who has experience working with students with ASD in schools in his native Iran, giving him what Merriam and Tisdell (2016) refer to as "insider" status in the study. He is fluent in English, Persian and Kurdish. He conducted the interviews in order to create a comfortable environment in which the participants could discuss their opinions with a professional who had similar experiences. He was aware of his potential "power" position being a male and also representing an institute of higher education, so he made certain to develop a rapport with the participants before beginning the study, and assured them that all answers will be kept confidential and not be shared with school or government officials.

The third author is a doctoral student who is also a special education teacher. She has taught students with a variety of disabilities including many with autism spectrum disorders. She has participated in a variety of research projects with students with disabilities. She had no experience interacting with Iranian teachers or students and had minimal understanding of laws and policies in Iran prior to the study.

None of the authors have a direct relationship with any of the study participants or their school district. All three researchers have experience working with students with ASD, and have an interest in advancing the rights of people with ASD, and exploring the best ways to provide them with an education.

FINDINGS

This study revealed several interesting findings. Overall, themes revealed that service providers in Iran reported a lack of support and needed services and training to effectively teach their students with ASD. Positive aspects of the job include collaborating effectively with other professionals and overall job satisfaction. Findings are discussed in detail below.

Supports

When asked about the types of supports received to teach their students, the majority of respondents indicated that they lack necessary space/facilities, special equipment, government support, and trained therapists. Space in which to work was an important issue, with responses indicating that the classroom space "is an empty class with some benches" (Participant 13) and several participants responding that they have small rooms, some with "two groups of children in one space" (Participant 6). Participant 1 indicated that the school's chapel doubles as the students' playroom.

Lack of equipment was also cited by several participants as a barrier to supporting students. Teachers indicate that they are responsible for creating materials and are not provided with anything from the school or government (Participant 1, 2, 4, and 6). Other participants reported that parents must create the tools for practitioners to use with their students (Participants 4, 8 and 14). Participant 6 indicated, "We only have some basic tools for painting and toys." Some participants did indicate that they feel they have the necessary supports in place. Two occupational therapists (Participants 7 and 11) indicate they have many supports, with Participant 7 stating "We have equilibrium bed, steps, trimmed surfaces, swings, a ball pool and large canopy balls, and a dark room with several different lights with different performance to stimulate vision," and Participant 11 stating, "I work in the department of sensory integration and I have the necessary facilities to do my job." Participant 8, who identified herself as a neurotherapist indicated, "Although the cost of the equipment is very high, fortunately we have all the facilities and equipment we need, and the classes are fully equipped and we try to keep up with the science."

When asked what supports that they believed were necessary in order to effectively educate their students, space was a common theme, especially appropriate places for resting and quiet work, with participant responses including "The class should be bigger and there should be practical places for rest, play and so on" (Participant 13); "We need smart classes and comfortable environments to rest" (Participant 1); and "Dark spaces for sleep and rooms for autistic children who want to do their work alone" (Participant 6). Appropriate materials were also mentioned as an area in which additional supports were needed. Participant 1 stated, "We prepare some of the teaching aids, games, and related tools for the classroom, but that's not enough." Specific material mentioned included toys (Participant 6), visual material and equipment (Participant 9), music players (Participants 12) and tools to help teach functional skills such as housework (Participant 12). In consideration of Bronfenbrenner's theory, this relates to the exosystem in that it relies on federal policies and school funding in order to have the money necessary to obtain the space and supplies needed.

The need for trained specialists and staff was mentioned by several participants as a necessary resource.

These included additional occupational and speech therapists (Participant 7), and therapists dedicated to working with students directly in the community (Participants 2 and 10). Participant 14 suggested that teachers specially trained to work with students with ASD should come into the classroom for consultation once per week, and Participant 8 suggested collaboration with both international and domestic practitioners who also work with children with ASD. This relates most closely to the microsystem, in that it considers the human resources (i.e., practitioners) that directly interact with the individual.

Three participants thought the lack of resources was not a barrier. Participant 8 stated that her school was one of the few centers "that tries to implement an interdisciplinary approach and multifaceted therapies, and we try to involve the family in treatment," with Participant 11 indicating, "I have the necessary facilities to do my job." Participant 2 discussed the need to use the given materials, indicating, "In my opinion, the treatment of people with autism depends more on the creativity and skill of the therapist, and I don't think there is any need of special device or facility in the clinic."

Challenges

When asked to identify challenges or barriers to working with their students with ASD, many of the respondents shared the same responses in terms of needed supports indicated above. Other challenges included lack of family support and training, individual differences, and location of schools.

Several participants (Participants 1, 2, 3, 4, 7, 11, and 13) identified lack of family support, awareness and acceptance, particularly if the child received a late diagnosis. Lack of acceptance of people with ASD by families (as well as society as a whole) was recognized by Participants 3, 6, and 13. Lack of awareness of what ASD is or how to support their children with ASD also was documented (Participant 4, 7, and 11) Several participants (Participant 2, 3, 4, 5, 8, and 10) also alluded to the fact that parents are often on their own to support their children, as they receive no governmental support, financial or otherwise. For example, Participant 2 indicated, "families who do not try to fix the problem (are a challenge) because of the high cost and lack of government support," and Participant 8 stated, "Unfortunately, there is no insurance that covers all treatments. Insurance is a serious problem in Iran and the cost of treatment is very high and most of the families are struggling financially."

Lack of training for personnel, families, as well as practitioners, was also identified as a barrier. Two participants (7 and 10) indicated that more training specific to students with ASD is necessary. This was also related to the findings in the Supports section, indicating that additional personnel who are specially trained must be provided.

Lack of family support, awareness and acceptance as well as lack of training for personnel are related to several of Bronfenbrenner's (1979) layers. First, the microsystem, representing the family directly interacting with the individual. Next, the mesosystem, which looks at the relationship between the family and the school. Additionally, the exosystem is relevant here, in terms of the way community resources, such as financial support and training, are reportedly not available for the families. Finally, the macrosystem is evident here regarding the reported beliefs system within Iran (societal understanding and acceptance of ASD) and the school systems and laws in place in Iran regarding children with ASD. Therefore, this finding makes it evident how multiple layers within Bronfenbrenner's framework can directly impact the individual's perspectives.

Participants identified the unique individual differences of children with ASD as a challenge. Participant 2 specifically stated, "Each person with autism has unique characteristics and this is a great challenge for a therapist with any level of knowledge, but especially at the beginning." Participants 5 and 9 echoed the thoughts that these students need to be treated individually or differently than children without disabilities. Finally, Participant 7 identified the location of the schools in the country, indicating that there are "lack of autism centers in small towns" and that parents must travel to the cities for services. Participant 4 agreed, stating, "Now in Tehran, the situation is much better. In other cities, even the families of these children may not even know about autism and not notice autism in their children." This finding relates most closely to the microsystem, in that the teacher needs to interact most directly with the individual (student with ASD) in order to best identify appropriate services. Additionally, the exosystem again comes into play here in terms of lack of available resources within specific communities. Finally, the lack of schools and information available in small towns is illustrative of how the macrosystem is directly impacting these individuals.

Collaboration

One major finding was that the level of collaboration varied across practitioners, but that those who did collaborate often felt supported by this interaction. Grade level teachers and related service professionals meet regularly to plan, share resources, discuss their students' problems and brainstorm ideas (Participants 1, 6, 7, 9, and 13). Several participants indicated that students often have a team of practitioners working with them, so it is important to ensure communication across all team members (Participant 2, 3, 5). Participant 12 indicated, "The good thing about this clinic is that we work as a team," with Participant 2 explaining that each therapist has

their own role, so it is important that they communicate regularly to ensure that they are providing appropriate services to their students.

Some respondents (Participants 8, 10) indicated that records are shared (e.g., session notes), but no direct communication occurs between practitioners. Others reported no communication; for example, Participant 4 indicated that teachers and students work one-to-one and there is no interaction with other professionals. Participant 14 agreed, stating, "I am alone. The speech and occupational therapists come one or twice a month for half an hour which is not enough at all."

In terms of collaboration with families, every participant indicated that they provide some level of support to families. Several respondents (Participants 1, 6, 9 and 12) indicated that families are present in the classroom, which helps them learn instructional practices that they can then use at home. For example, Participant 1 stated, "Mostly parents are present in the class and observe the training. We give them solutions to work with their child." Participants 2 and 10 indicated that the last five to fifteen minutes of each session is spent talking to families about their children's progress in the session and ideas of what they can do at home. Similarly, Participants 7 and 11 indicated that the team of therapists meet regularly to help provide families supports to use at home. Interestingly, Participant 4 shared that the teachers in her school do not work directly with families, but that families can observe the sessions on a camera.

Participant 3 indicated that an important part of her job is helping families understand ASD, and how to support their child. She stated, "When parents come to me, for the first step we discuss about autism and its effects on lifestyle and what is going on, etc. Another step is to teach how to work and play with the children at home, how to deal with the challenges, and acceptance of autism, that is the most difficult step."

In terms of family's satisfaction with their child's education, approximately one third of respondents (Participants 8, 10, 11, 13, and 14) reported that they believe their students' families are satisfied with their education. Participant 10 stated that "most" families were satisfied, with Participant 9 estimating that "80-90% are satisfied." Participant 1 indicated that although parents may be dissatisfied with their child's progress, "We try do our best, and the parents are aware of that." Participant 13 echoed that sentiment, stating, "They see our facilities and efforts as teachers and they are not dissatisfied with us." Other respondents indicated that the families do not know enough about their child's education. For example, Participant 2 indicated, "most families are not familiar with this issue, even if we have no progress, they think everything is going well." Participant 9 also indicated, "Because they have a little knowledge, do not give ideas (opinions of how the education is going)."

Several participants also reported that families are dissatisfied with their child's education. For example, Participant 5 reported, "They are always dissatisfied, they compare here with other countries," with Participant 6 adding, "Parents do not accept their children's problems and deficiencies. Their expectations are too high, and they do not understand at all and think that the problem is ours and that we cannot educate their children." Participant 12 stated, "Because they are not very aware at first that the kid changes, most are satisfied, but later on when the change and progress stop, parents complain... They just ask questions about the end of treatment, because of financial problems, and because nobody knows and we have no answer, most of them get upset." Regarding financial problems, Participant 7 believes that many parents would like their children to have more therapy sessions, but they cannot afford it. Participant 8 also indicated that families who could afford for their children to attend the center are very pleased with the services, but those who struggled with the cost were less satisfied. Therefore, cost of services seemed to be related with satisfaction, at least for some families.

Job Satisfaction

Just over half of respondents reported being dissatisfied overall with their jobs. Of those who reported being dissatisfied, the majority cited feeling financial strain. Even those who reported being satisfied in their job often identified feeling they were underpaid or not well-supported. Participant 4, for example, indicated that financial incentives, especially for experienced teachers, would help, while Participant 2 stated, "My satisfaction with my job is 90%, but I'm not satisfied with my salary and financial condition." When asked how satisfied she was with her job, Participant 3 stated, "Let's say 50%. Lack of social, financial supports, and the pressure and stress of the families that affect us and reduce the satisfaction." Participant 10 identified, "mental and physical conflicts" as a source of dissatisfaction, while Participant 6 indicated that ASD was not her specialty, so she felt dissatisfied. Overall, several participants in this study felt dissatisfied with at least one aspect of their job.

Each of these findings regarding collaboration demonstrate Bronfenbrenner's (1979) mesosystem, given the need for families and practitioners to collaborate to best support the individual. This is evident in the finding from Participant 3 indicating that she sees it as her job to work with families to best support her students. This collaboration in turn affects the microsystem, as it has an impact on how each of the respective stakeholders interact directly with the individual. Satisfaction with the child's education (parent perspective) or with one's job (practitioner perspective) will directly impact the ways in which

interactions with the individual occur. Exosystem further comes into play here, as one considers how school funding and workplace policy impact job satisfaction, and how availability of resources can impact families. For example, Participant 8's assertion that families' ability to afford schooling directly impacts their satisfaction with the services received indicates the significance of financial supports.

DISCUSSION

This study sought to contribute to the limited research base regarding the perspectives of service providers who work with students with ASD in Iran. Findings from this study indicated that many participants felt unsupported in their role as service providers and identified a number of challenges to effectively perform their jobs. These challenges included lack of appropriate space and/or equipment, training, financial compensation, and support for families.

Many participants reported that they lacked the necessary space and equipment to foster productive learning environments for their students. This is not uncommon, since many teachers in Iran have reported a lack special supports to effectively education their students with ASD (Samadi & Mcconkey, 2018). Due to the unique needs of students with ASD, appropriate spaces to move around, and specific learning materials, such as sensory or fine motor and reinforcers, are necessary to meet their needs and promote learning. Similarly, participants in this study indicated that they often need to create their own materials or have parents created and/or purchase materials and equipment for their children. Other researchers have reported similar findings (e.g., Samadi & McConkey, 2018), indicating that this may be a widespread problem throughout Iran.

Findings from this study also revealed that participants believe they require additional training, or additional trained staff to support their students. According to Samadi et al. (2020), there are generally no ASD-specific training courses for school staff in Iran, as there are for teachers of students with other disabilities. This is not uncommon, as many teachers of students with ASD in countries across the world, such as Turkey (Rakap et al., 2018), the United Kingdom (Ravet, 2018), France (Boujut et al., 2017), the United States (Wilson & Landa, 2019) and Saudi Arabia (Atiyat, 2017) do not have a great deal of knowledge about students with ASD or have received minimal or no training specifically in ASD. In addition, few teachers feel adequately trained to support their students with ASD (Brock et al., 2014) and many have reported the need to have additional training specific to students with ASD (e.g., Lindsay, et al., 2014). When training is provided, however, research has indicated that teachers have a better understanding of the needs of individuals with ASD and how to support them (e.g., Giannopoulou, et al., 2019), and may be less likely to experience exhaustion and burn out (Iancu et al., 2018). This may also lead to greater job satisfaction.

A majority of participants reported feeling dissatisfied financially with their positions. This is not surprising, as most teachers in Iran live below the poverty line, and many must obtain a second job to earn a decent living (National Council of Resistance of Iran, 2020). In fact, many teachers in developed nations, such as the United States, have reported exceptionally low teacher salaries when compared to comparably educated and certified workers in other fields (e.g., Garcia & Weiss, 2019). Given these financial concerns, along with other factors such as pressure from families, stress, and the challenges posed by students with ASD, it is not unanticipated that teachers of ASD reported a higher level of job burnout than teachers of other students (Zarafshan et al., 2013). Such conditions are not ideal and can lead to fewer teachers entering the field, and to those who are in the field leaving to pursue other careers.

In terms of collaboration, every respondent in this study indicated the need to support families. This is an important finding, as families frequently report a lack of support, financially and otherwise, to care for their children with ASD (e.g., Zarafshan et al., 2019), yet research has found that collaboration between school and home can have positive effects on students with ASD, including improved social outcomes and improved academic outcomes (Josilowski & Morris, 2019). Several participants in the study reported that families felt dissatisfied with their child's education, and this was often due to the cost and availability of services. This finding is supported by other researchers, who found that families of children with ASD in Iran report high levels of stress and health concerns (e.g., Samadi & McConkey, 2011), as well as families in other countries such as the United Kingdom (Herrema et al., 2017). This also has an impact on teachers, such as those in this study, who often take on the responsibility of supporting families.

Although some participants reported feeling alone or isolated in their positions, most reported some degree of collaboration with other professionals, which they described as feeling "supported" through this collaboration. Several participants reported working as a team and communicating regularly with other practitioners to best support their students. This finding is positive given that a multi-disciplinary approach to educating students with ASD is necessary in order to achieve optimal outcomes (LaFrance et al., 2019). In Spain, for example, teachers who were involved in an ASD support network had more positive attitudes and resources available to help their students with ASD (Rodriguez et al., 2012).

When reviewing the findings with respect to Bronfenbrenner's (1979) ecological system theory, it is clear that the experiences of students with ASD in Iran are influenced not only by their abilities, but by every layer surrounding them.

Effects of the microsystem were evident in many areas, including how the families understand and accept ASD and work with their children, and how the lack of trained professionals can directly impact the individual. Satisfaction with services (families) or job (practitioners) are also illustrative of the effects of the microsystem. The mesosystem affects individuals in terms of relationships between the family and school. This is most evident in the context of this study in terms of the collaboration required between families and practitioners, and their need to "be on the same page" to best support the individual with ASD. The effects of the exosystem are most clear regarding how school funding and workplace policy impact job satisfaction, and how availability of resources can impact families; specifically, lack of supports (material and personnel) in schools and lack of information and financial supports for families. Finally, the macrosystem appears to be affecting individuals in terms of their beliefs regarding ASD in Iran and school systems in place to support individuals who have ASD and their families.

Implications

Findings from this study indicate that the most important consideration for lawmakers and educational leaders in Iran is that additional training and resources are needed for teachers and practitioners of students with ASD, and additional support is needed for families. First, the Iranian government and Iran's Special Education Organization may consider providing teachers with appropriate training specifically in ASD and best practices for teaching students with ASD, both in preservice teacher preparation programs and as professional development for in-service teachers. According to Zarafshan et al. (2019), the Iranian government should look to not only increase the number of schools to support individuals with ASD, but also "design a program to train specialists based on the evidence- based approaches to provide services for people with autism. Given the prevalence of autism and shortage of specialists, this program should consider training people with lower academic degrees and in settings with limited resources" (p. 81). This includes offering courses in autism across all teacher preparation programs, not just special education programs (Human Rights Watch, 2019).

Appropriate spaces and materials are also required in order to better serve individuals with ASD. Although supports in Iran have recently increased, these measures are still not adequate to promote appropriate learning opportunities for students with ASD (Human Rights Watch, 2019). In order to meet the United Nation's Convention on the Rights of Persons with Disabilities (CRPD; 2006), which was ratified by Iran in 2009, students must have equal access to education as offered to those without disabilities. To meet the principles of this Convention, appropriate spaces and materials should be provided. Among these spaces should be inclusive settings where students with ASD can interact with their typically developing peers (Zarafshan, 2019).

Support for families is necessary, not only to improve the lives of the individuals with autism and their families, but also to help support the practitioners who serve them. Government and social organizations could look to provide financial supports to families to help them with costs such as services, transportation to schools, and materials or equipment needed for daily functioning. Although Iranian law supports parents as the decision makers in their children's education, the reality is that many families do not have many options if they are unable to afford special services (Samadi & McConkey, 2018). Students with ASD should not be required to obtain services in special schools rather than accessing public education (Human Rights Watch, 2019). Resources on evidence-based practices should also be shared with families and translated into their language, if necessary. Service providers should be trained in how to best support families with the aims of easing family stress but also improved outcomes for the students.

Finally, government social and educational agencies could work to help reduce the stigma associated with autism in Iran. Participants in this study reported that stigma still plays a role in students receiving appropriate services, a finding which has also been reported in other research studies (e.g., Samadi & McConkey, 2018; Zarafshan, 2019). Agencies should look to improve autism awareness and acceptance by providing awareness campaigns, offering trainings, and providing more opportunities for students without disabilities to interact with students who have ASD (Human Rights Watch, 2019).

Limitations and Future Research

This study was limited by the number of participants who participated in the interviews, who were a convenience sample from limited geographical regions in Iran. The fourteen participants may not accurately represent the views of teachers of children with ASD across the country. Future research should look to include additional participants from all over the country. Additionally, all but one of the respondents were female. Although this is not atypical of educational professionals in Iran (Sohrabi, 2017) as well as other countries, additional male participants may have reported different perceptions of their experiences, and should be sought for future studies. This study was also based on self-report of their perceptions of experiences, which may be problematic (Merriam & Tisdell, 2016). Therefore, it is possible that some participants may not have been completely accurate or honest with their reporting of their experiences. In the future, researchers may wish to couple self-reports with observations and interviews with families and governmental agencies to corroborate findings.

CONCLUSION

This study examined the perspective(s) of service providers including teachers, speech therapists, occupational therapists, and psychologists treating students with ASD in Iran. Specifically, we examined the types of supports received, challenges faced, the collaboration between providers and families, and overall job satisfaction, and how this may influence the education of students with ASD. Overall, findings indicated that most participants felt unsupported in their role as service provider and identified a number of challenges to effectively perform their jobs, including lack of appropriate space and/or equipment, training, financial compensation, and support for families. Positive aspects of the job included collaborating effectively with other professionals and overall job satisfaction. Based on previous research, these findings would seem relevant to researchers and practitioners from an international audience who face similar challenges in educating students with ASD.

Through the lens of Bronfenbrenner's ecological systems theory, we see how the various layers affect the education of students with ASD, from the microsystems, such as families and service providers, to the macrosystems, including societal beliefs about people with ASD and the school system and laws in Iran regarding the education of people with disabilities such as ASD. Continuous research should further examine how each level of the ecological systems theory can support the needs of people with ASD in Iran and throughout the world.

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