

Knowledge and Practice of Special Education Teachers in Teaching Social Skills to Students with Autism

Connie Parantis, Hasnah Toran

Faculty of Education, Universiti Kebangsaan Malaysia, 43600, Selangor, Malaysia

Corresponding Authors Email: hasnahto@ukm.edu.my

To Link this Article: <http://dx.doi.org/10.6007/IJARPED/v13-i4/15722> DOI:10.6007/IJARPED/v13-i4/15722

Published Online: 16 November 2024

Abstract

Special education teachers need to have the knowledge and skills to plan and execute effective teaching strategies to improve the social skills of their students with autism. This study investigates the knowledge and skills of special education teachers in Malaysia in teaching social skills to students with autism. A qualitative study design was adopted where data was collected by conducting semi-structured interviews. Through a purposive sampling method, twelve special education teachers who taught students with autism in seven states in Malaysia were recruited as respondents. The results show that the knowledge of autism amongst special education teachers is low and inadequate. Respondents also reported not receiving adequate training on autism and teaching students with autism. This research also put forward some suggestions to overcome the issues highlighted by the findings, mainly emphasizing the teachers' desperate need for training and the need for both teacher training modules on autism and modules on teaching social skills to these students.

Keywords: Autism Spectrum Disorder, Special Needs Students, Social Skills, Teacher's Level of Knowledge, Teacher's Practice

Introduction

Special education teachers play an important role in ensuring that teaching and learning sessions run smoothly and successfully to develop the potential of students with disabilities. When it comes to teaching students with autism, teachers need to have a solid knowledge of autism and a repertoire of skills to promote their social interaction and social communication skills. Therefore, students' quality of learning depends on teachers' knowledge and understanding of students' social, emotional as well as cognitive development (Schonert-reichl, 2017). Special education teachers also need to be prepared and skilled to handle any unexpected behaviors displayed by these students.

Autism Spectrum Disorder (ASD) is a neurological disorder that results in difficulties in social communication and social interaction skills (American Psychological Association, 2013). Students with autism face difficulties in social interaction, verbal and non-verbal communication, limited repetitive behavior, lack of interest, and restricted activity (American

Psychological Association, 2013). Many studies on special education teachers teaching these students reveal that these teachers have poor knowledge and outdated beliefs about ASD (AlSharbati et al. 2015). For example, a study by Toran et al (2016), stated that special education teachers in Malaysia were found to only have very basic knowledge of

the characteristics of ASD. However, this study also found that there were high levels of misinformation regarding the characteristics of ASD among them. In total, it was found that 77.6% of participants had students with ASD but lacked training on autism. The findings of this study highlighted the importance of in-service training. According to Zainoriza et al. (2019), the lack of awareness of autism amongst teachers has a significant impact on their perceptions of students with autism in Malaysia.

For this reason, every teacher needs to have a firm knowledge of ASD (Ullah et al., 2015).

Positive perception and acceptance given by the community, especially by teachers will have a positive impact on the development of children with autism. Solftanifer et al. (2015) stated that if society holds a positive perception of autism, it can positively support parents of children with ASD. Nonetheless, there are still segments of society that label children with autism with negative perceptions. This situation occurs because they do not recognize nor understand the characteristics of autism spectrum disorder thoroughly. Studies by Paynter et al (2018), and White (2014), reported misconceptions and misinformation about autism in society. Meiriawan et al (2017), stated that although society often hears about children with ASD, they do not understand the nature of this disorder in detail. According to Suhaily and Siti Syuhada (2017), inadequate knowledge of ASD causes negative public perceptions toward children with ASD and consequently leads to a negative impact on parents with children with autism as well.

Social Skills of Students With Autism

Siti Marziah and Nor Shahirah (2018), stated that children diagnosed with autism spectrum disorder experience issues in communication and social skills as well as behavioral difficulties. These issues often lead to challenges of anti-social behaviors (Suhaily & Siti Syuhada, 2017) such as incapability to control emotions, loss of focus, and easily distracted (Sulistyo et al., 2017) which subsequently affect their perceptions as well as their understanding of others (Mastura & Mimi, 2014). They also have difficulty when it comes to socializing or getting along with others. Social difficulties may negatively impact academic achievement and school attendance, mental health, and behavior (Lauderdale-Litten et al., 2013; Mazurek et al., 2013; Munkhaugen et al., 2017; Patton et al., 2016; Rabiner et al., 2016).

Social skills are a set of appropriate skills and behaviors that allow individuals to interact effectively with others and avoid socially unacceptable reactions. Therefore, social skills are required for adaptation to different social situations, improving health relationships, and influencing a person's adaptation to certain situations (Maleki et al., 2018). A person who uses social skills to interact effectively with friends, family, colleagues, and strangers is said to have social competence. Unchalee et al (2014), have identified three main social skills issues amongst students with autism namely controlling behavior, communication skills, and working in a team. Studies have found that children with autism have fewer friends and report a lower quality of friendships than their typical peers (Calder et al., 2013; Cook et al., 2017; Kasari et al., 2011). This condition will have a detrimental effect on students with autism. Other studies

have also found that deficits in social skills can dramatically impact future life success across various domains including relationships, employment, health, and higher education (Denham & Brown, 2010; Montroy et al., 2014; Zins, et al., 2004; Silveira-Zaldiva, 2019).

Other than that, they also have a tendency to isolate themselves and prefer not to

socialize with typically developing friends. These typically developing friends may also find it awkward to socialize with the children with autism as they do not understand these children and they do not know how to interact with them as found by Bottema-Beutel and Li (2015), who stated that typically developing adolescents may avoid social interactions with individuals with ASD because they feel that they do not have the skills to do so effectively.

Several strategies have been identified that can help improve social skills among students with autism. In a study, Bella et al (2019), stated that role-playing is useful for developing social skills in children with ASD as they play in groups and have fun together. Role-play is one of the approaches that help students with autism understand social behavior, their role in social interaction, and ways to solve problems effectively. Through this role-playing method, the teaching process occurs when students are allowed to discuss, and communicate bilaterally to give their views, opinions, and ideas on the matters discussed. This, in turn, will allow students to interact indirectly with other peers.

Social interaction plays a significant role mainly in a child's capability to communicate with others, know how to act in certain social situations, and maintain meaningful social relationships throughout his or her life (Klopfer et al. 2019; Ellis & Almeida, 2015). Literature reviews on the effect of role-playing in cooperative learning for children with ASD show that it is highly effective in achieving long-term learning objectives such as social skills development (Bella et al. 2018; Hart & Whalon, 2011; Hirsch, 2016).

Another intervention that teachers can use to improve the social skills of students with autism is through Peer-Mediated Intervention (PMI). The PMI approach involves students with autism and peers in the class. Peers serve as mentors to students with autism to assist them in improving social skills. According to Płatos and Wojaczek (2018), PeerMediated Intervention (PMI) is mostly defined as a treatment approach that engages typically developing peers to teach children with autism spectrum disorders (ASD) social skills and increase their social interactions, mainly in a school setting. One of the benefits of PMI intervention is that it can be implemented successfully in short periods and a variety of settings, such as small groups, during play periods such as recess, via whole class intervention, or in school programs (Chang & Locke, 2016; Corbett et al., 2015; Zagona & Mastergeorge, 2016). There are also opinions from many researchers that consider the PMI essential components of modeling, prompting, and reinforcement to be the most successful procedures for teaching social skills and enhancing social competence (Cole & McCurdy, 2014; Kamps et al., 2015). Chang and Locke (2016) stated that students with ASD who benefit the most from PMI interventions, share certain characteristics, such as average cognition, interest in peer interaction, and compliant behavior.

The involvement of students with autism in the Inclusive Education Program (IEP) gives them the same experience as typically developing students by learning together in a shared classroom. However, their interaction is somewhat restricted with peers in the classroom due

to their socialization limitations. This matter will be a problem for students with autism when they appear not to be actively involved in class and do not socialize with typical peers. They will tend to lag behind in lessons and feel alienated in the classroom. Therefore, the role of peers in the class is essential in helping students with autism improve their social skills. Research has found that the placement of students with autism in inclusive classrooms would provide positive outcomes. According to Cappe et al. (2016), the inclusion of individuals with ASD in the same educational environment as typically developing children will provide positive results in terms of social and cognitive development.

Teachers' Knowledge

Knowledge refers to the human understanding of a matter, which is a systematic and consciously pursued understanding. Teachers, need to have good knowledge and skills in the field of autism mainly because teachers are the closest individuals to students with autism as they spend ample time together in the classroom. Nevertheless, according to Mariani et al. (2017), there are still many teachers who lack knowledge about autism in Malaysia. Research conducted by Salleh et al (2018), stated that most respondents are familiar with autism, but not all understand the characteristics of students with autism and assume that autism is similar to hyperactivity in children. Scheuermann et al (2016), argued that professionals must have some knowledge of ASD, such as its characteristics, etiology, definitions, and diagnosis, and must be able to use the most effective curricula and strategies to teach communication and social skills, compensate for adaptive behavioral defects and address problematic behaviors.

Numerous studies have found that there are still many special education teachers in Malaysia who do not have in-depth knowledge about autism due to a lack of training or exposure whilst studying in university and teacher training institutions. A study by Toran et al. (2010), discovered that special education teachers are more competent in identifying the characteristics of ASD but they are less competent in the teaching strategies for these children. This research also found that these teachers do not receive adequate training during preservice training. According to research conducted by Majin et al. (2019), the lack of teachers' knowledge about ASD will contribute to poor perceptions about ASD. Numerous studies have shown that most in-service teachers lack knowledge of ASD (Arif et al., 2013; Mavropoulou & Padeliadu, 2016; Segall, 2008; Shetty & Rai 2014)

Special education teachers should receive sufficient training and courses to ensure that they are prepared to work with students with autism, especially in making sure that their social skills improve. Corona et al (2017), argued that improving teachers' knowledge of ASD can enhance their confidence in their ability to work with students with autism. Condrey (2015), found that teachers with positive attitudes and strong support networks felt sufficiently prepared for their role. On the other hand, there are still teachers who have little knowledge and less training about students with autism. The manifestations of ASD are very different, and teachers must possess precise and complete knowledge of ASD to enable children with autism to integrate into the classroom smoothly (Alnemary, 2017).

Majin et al (2017), also found that the lack of knowledge about ASD amongst teachers, indirectly, has a significant impact on their perceptions of ASD children in Malaysia. According to Demirok and Baglama (2015), various factors promote student development, the attitude

of teachers is one of the most important and this is also the case in the education of students with autism. Thus, it is a necessity that special education teachers receive a satisfactory amount of training to prepare them in dealing with students with autism and to help them in changing their perceptions toward students with autism.

Cooperation and collaboration between teachers and parents is the essence in ensuring that the social skills of students with autism can be enhanced in both settings; at home and in school. This is because the activities conducted by teachers in the classroom require continuity at home. This statement is also supported by Falkmer et al (2015), who highlighted the importance of 'good communication' between teachers and parents as teachers listen to parents, ask for advice, and inform them about their children's problems and progress.

Below are the Objectives of this Research

To explore special education teachers' knowledge of autism, students with autism, and their social skills.

To explore the skills of special education teachers in teaching social skills to students with autism.

To explore the training the special education teachers received in teaching social skills to students with autism.

To review the practice of special education teachers in teaching social skills to students with autism.

Methodology

This research adopted the qualitative approach where data was collected via semistructured interviews. The interviews were conducted through telephone calls as the country was still observing the Covid 19 movement control order. The respondents were 12 special education teachers who taught students with autism enrolled in the Special

Education Integration Program (SEIP) in government secondary and primary schools. The selection of these respondents was executed using purposive sampling, based on the teachers' experience in teaching students with autism. These teachers taught in several states in Malaysia, namely Sabah, Sarawak, Kedah, Kelantan, Penang, Perak, and Terengganu. The purpose of selecting teachers from various states was to acquire more in-depth and diverse information about students with autism's social skills. The interview protocol in this study contained a set of open-ended questions. It was divided into two parts, namely Part A which collects the demographic information of the respondents, and Part B which consists of items related to the four research questions.

To establish the validity of this research, three professionals in the field of special education who were experienced in teaching students with autism were invited to determine the validity of the content of the interview protocol. One was an academician while the other two were heads of their school's Special Education Integration Program (SEIP) in government secondary schools. Face validity was established by inviting three special education teachers to examine whether the interview protocol questions were easy to understand. A pilot study was carried out on two secondary school special education teachers who had similar characteristics to the actual respondents to evaluate the suitability of each item in the interview protocol. The recorded interviews were transcribed manually and analyzed

thematically to identify themes that are appropriate and relevant to the objectives of the research.

Respondents

A total of 12 special education teachers were involved in this study. They taught students with disabilities in the Special Education Integration Program (SEIP) in both primary and secondary schools in Malaysia. All the respondents in this research had experience in teaching students with autism. The respondents were coded as SET (Special Education

Teacher) and followed with a number, e.g. SET1, SET2, SET3, SET4, SET5, SET6, SET7, SET8, SET9, SET10, SET11, and SET12. All the respondents were female. Their ages range from 29 to 52 years old. They have been in the field of teaching special education for at least 4 to 30 years. The professional qualifications of these research respondents are diplomas and bachelor's degrees. 5 teachers have diploma qualifications, and 7 others have bachelor's degrees. Two research respondents hold the position of Senior Special Education

Assistants, and 10 other respondents are special education teachers. Amongst the 12 respondents of this research, 5 of them are non-option special education teachers, while another 7 teachers are of the special education option.

Table 1
Demography of Research
 Participants

Research Participants	Profile of Research Participants					
	Teaching	Age	Gender	Profession	Professional	experience
SET1	40	F	SEIP Teacher	Post-graduate diploma	11	Special Education
SET2	39	F	SEIP Teacher	Post-graduate diploma	10	Special Education
SET3	52	F	SEIP Head Unit	Degree	30	Special Education
SET4	36	F	SEIP Teacher	Post-graduate diploma	11	Special Education
SET5	32	F	SEIP Teacher	Degree	7	Special Education
SET6	37	F	SEIP Teacher	Post-graduate diploma	8	Special Education
SET7	29	F	SEIP Teacher	Degree	4	Special Education
SET8	38	F	SEIP Head Unit	Post-graduate diploma	13	Preschool Education
SET9	36	F	SEIP Teacher	Degree	11	Preschool Education
SET10	41	F	SEIP Teacher	Degree	15	Economy
SET11	47	F	SEIP Teacher	Degree	15	Preschool Education
SET12	41	F	SEIP Teacher	Degree	14	English

Research Finding

The findings of this research successfully answered the four research questions after the data from the interview were analyzed thematically to find themes that are suitable and pertinent to the objectives of the study.

Teachers' knowledge of autism and students with autism

Based on the interview, all respondents stated that they understood the concept of autism and recognized students with autism through the characteristics that were exhibited in the classroom. However, they also stated that their knowledge of autism and students with autism was still inadequate and felt that they needed to continue learning about autism, especially since students with autism are different and diverse.

"For me, it (her knowledge) is not enough. Each of these children with autism is different in nature and different in behavior. Not the same. We can't equate children with autism A and children with autism B. It's different. So, every day we must study their behavior, and what

they want and don't want. There are many things we need to study. Even till the end of time, we won't be able to understand children with autism". (SET5) SET1 argues that working with students with autism is not an easy task. There are countless challenges encountered by teachers whilst facing and being together with students with autism, especially in the classroom. For that reason, teachers need to know how to handle such challenges:

"One of the challenges of dealing with students with autism while carrying out teaching and learning activities is the problem of student tantrums in the classroom. This situation often happens to students who are at Level 1. The teacher's focus on teaching is bound to be interrupted for a while. In overcoming this problem, the teacher's ability to win the students over, to persuade by using various methods is very helpful in calming students who have tantrums". (SET1)

11 out of 12 research participants expressed their confidence when teaching students with autism despite having insufficient knowledge of autism. But their experiences as teachers helped them greatly in getting to know students with autism.

"I'm confident. But if there are new students, we need to always keep learning and studying. Most importantly, we must work with their parents to know more about how they are". (SET3)

Social skills of students with autism and participation in the Inclusive Education Program (IEP)

All research participants agreed that students with autism do indeed have issues with social skills. This can be observed based on the characteristics exhibited or displayed by students with autism.

"Strongly agree. Because we also know the characteristics of students with autism, one of them is difficulty in communicating. When it's difficult for them to communicate, social problems arise. When it's hard to communicate, it's hard to make friends. Other people also find it difficult to build a relationship with them. Like being alone, with their own world" (SET10)

The results of the interviews indicated that nine out of 12 research participants specified that students with autism had been involved with IEP and those involved had social skills problems. However, the role of peers greatly helps these students with autism to alleviate the social skills problems they face.

"Usually, they have trouble adjusting. Depending on their level of autism. If they have mild autism, they can adjust if they have friends. So here, the role of a peer is important. If they get along well with their friends. But usually, students with autism find it difficult to adjust to a new environment. Whether they are in an inclusive class or not, they need help from teachers or aides. The real main factor in the class is peers. If they find supportive peers, they can proceed ahead and vice versa". (SET5)

The researcher found that all research participants were able to state the social skills issues of students with autism presented especially in the classroom. Among the issues are:

Yes, I agree. Students with autism have difficulty making friends and adjusting to other individuals. They often move on their own and are in their world. (SET2)
Implementation of the strategies for improving social skills and Individual Education Plans (IEP)

A special education teacher needs to possess great skills in planning appropriate strategies to be used in improving the social skills of students with autism. Based on the interviews conducted by the researcher, three out of 12 research participants utilized the strategy of providing rewards

“Mostly I use the reward approach such as giving praises and encouragement to improve the social skills of students with autism”.
(SET12)

Meanwhile, three other research participants specified that their strategy for improving social skills is through role-playing.

“I use the approach of role-playing”. (SET2)

Apart from that, two research participants stated that they involved their students in group activities.

“The main approach used is to involve all students in activities without separating them.”
(SET1)

This research also investigated the respondents’ perspectives on the preparation of IEP for their students with autism. The researcher discovered that all research participants had developed IEPs for their students. The 12 research participants agreed on the effectiveness of the implementation of IEPs in improving the social skills of students with autism with the continuous participation of parents.

“Yes, it helps. It’s successful because there is a cooperation between parents and teachers. So indirectly the parents also know the content of the IEPs, and not only can they do it in school, but it can also be continued at home”. (SET7)

On the other hand, not all IEPs provided by research participants have documented the contents or objectives that focused on improving the social skills of students with autism. Two research participants indicated that the IEP they provided was more focused on the academic improvement of students.

“There is (an IEP). But in my school, IEPs are done by subjects. Not based on a student’s behavior or anything. For me to teach Malay, I will focus on the student to be able to understand based on pictures and to be able to read”. (SET11)

Pre-service and in-service training or course requirements.

Five research participants did not major in special education during their preservice training. They stated that they were not exposed to the knowledge of autism while studying at the university. The results of the interviews indicated that they did not receive training or

courses explicitly in the field of autism. This causes them to have inadequate knowledge as they did not receive basic knowledge of autism.

“There was none (training) when I was in university. At the college, it was just like a basic course. Not focused on autism. It was more on general knowledge”. (SET12)

They stated that their knowledge of autism grew when they learned while in the real working world or while in service by attending courses organized by NGOs. They took their initiative to attend these courses which meant that they had to pay for their participation fees.

“None. Because ever since I started working, the courses were more on Down Syndrome. Once, I was in Sabah attending a course about communication called PECS (Picture Exchange Communication system), teaching children with autism to communicate using pictures. That too I went on my own initiative”. (SET10)

The other seven research participants who majored in special education during their preservice training also stated that they, too, did not receive any training or attend courses specifically on autism. Even if they did, it was more theoretical and general.

“In the past when in university, these courses were much less. But in certain subjects, social skills were indeed discussed but not as focused on social skills as much”. (SET6)

The researcher also found that although teachers were already in service, they have yet to receive training or attend specific courses on autism. The results of the interviews indicated that many of the research participants stated that they have never attended training or courses on ways to improve the social skills of students with autism. They added that the courses organized were more comprehensively geared towards students with special needs in general.

“To be honest, indeed there was none. There were only educational introductory courses. There was indeed no exposure to autism. So, for a teacher who majored in special education, it’s all good. But for someone like me who is not a special education major, it was a culture shock. We had to google on our own to search and learn from senior teachers”. (SET11)

Research participants specified that they improved their knowledge on autism by participating in events organized by Non-Governmental Organizations, through readings, based on their experiences while working directly with students with autism, and through online webinars.

“There is no course related to autism yet, but there are online courses on intervention and the basics of autism. Even if there is, it is more general such as learning disabilities”. (SET10)

Practices used to teach social skills to students with autism

The results of the research revealed that four out of 12 participants stated that among the practices that they commonly apply is involving special needs students along with typically developing students.

“Involve students with every organized school activity without separating them from typically developing students. (SET1)

Furthermore, four research participants shared that they used group activities to teach social skills to their students with autism.

“In terms of activities, group activities it is. One of the school practices, for instance, is involving them in assemblies. Joint assemblies with typically developing students. Before (the Covid 19) Movement Control Order, all special needs students would be in the canteen together along with the typically developing students. Let them get used to being together”. (SET3)

All research participants agreed that the practices they used have had a positive impact on the social skills of their students with autism.

“Yes. Students with autism are more open and are not afraid of the presence of others. They are also more open and can interact with other students”. (SET2)
Collaboration between teachers, parents, and professionals or NGOs

All the research participants stated that there was a collaboration between teachers and parents in ensuring that the practices implemented by these teachers can be implemented well in the school. Moreover, there were also collaborations with external parties or NGOs as well.

“Collaboration with parents is indeed present. Before the (the Covid 19) Movement Control Order, we sent children with autism to undergo a transition program at the laundry shop to iron clothes. So, it was a collaboration with outside parties, that is with the laundry shop and with the parents of the student”. (SET5)

Discussion and Implication

The results of the survey included that teacher knowledge of autism is still at a low level and inadequate. Although teachers can recognize autism students from the characteristics they show in the classroom, they don't have more knowledge about autism students. Therefore, teachers think that they should add knowledge about autism through the various approach. Among them are by reading, attending a relevant course, workshop and so on. This finding of the study is parallel connected to research from Mariani et al (2017), who says it is still a lot of teachers who lack knowledge about autism in Malaysia. Thus, they had heard about autism but they didn't understand the characteristics found in children with autism.

Other than that, the results of the research have found that the teachers have a good knowledge of interventions that could be used to improve the social skills of students with autism. The majority of the teachers state that Peer-Mediated Intervention is a skill that involves peers which is very helpful to increase social skills because they share the same interest, characters, and behavior. This statement came as the research conducted by Chang and Loke (2016), stated that students with ASD who benefit the most from PMI interventions, share certain characteristics, such as average cognition, interest in peer interaction, and compliant behavior. Collaboration between parents and teachers is also important to improve

the social skill of students with autism. These findings of the study are also supported by research from Falkmer et al (2015), that concludes two-way communication is better as the teachers listen to the parents, seek advice and inform them about their kids' problems and development.

Next, the research finding found special education teachers who have followed education in university or teacher training institutions did not get specialized training in the knowledge of autism during their studies in university or teacher training institutions. They are not exposed deeply to the knowledge of autism. This survey finds parallel to the research carried out by Toran et al (2010), states that special education teachers are more capable of identifying the characteristics of ASD but then have a lack of input in the eyes of training and gaining knowledge during their study in university or teacher training institutions. Thus, as well as special education teachers who had served as teachers did not get training or attend any workshop or course of study related to autism. That means the results of the research came as the survey that has been running by Scheurman et al (2003), says that despite there being teachers who can teach but they are not getting adequate training which is the indirect hindering provision and trained teachers for the field of autism.

The implication of this survey found that special education teachers whether studying or serving compulsory to attend training or course that are related to autism to gain their knowledge about autism in particular. Therefore, they will be more confident and have a greater knowledge about autism not only able to recognize the characteristics of autism in general but also can identify strategies to be implemented next to help improve autism students' social skill

This research will be beneficial to special education teachers and be of use as a reference in improving the social skills of students with autism. Apart from that, it can provide information to school administrators on the significance of providing support and training to special education teachers in dealing with students with autism as well as improve the service quality of special education teachers.

References

- Talal, A. (2020): Efficacy of Video Modelling (VM) in Developing Social Skills in Children with Autism Spectrum Disorder (ASD) at School in Saudi Arabia, *International Journal of Disability, Development and Education*, DOI: 10.1080/1034912X.2020.1716962
- Alnemary, F. (2017). Knowledge, self-efficacy, use of practices, and focus of teaching among teachers of a student with an autism spectrum disorder in Saudi Arabia: A cross-sectional study. Los Angeles: University of California.
- Al-Sharbati, M. M., Al-Farsi, Y. M., Ouhtit, A., Waly, M.I., Al-Shafae, M., Al-Farsi, M., Al-Khaduri, M., Al-Said, M., Al-Adawi, S. (2015). Awareness about autism among school teachers in Oman: A cross-sectional study. *Autism*, 19, 6–13.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: American Psychiatric Association.
- Arif, M. M., Niazy, A., Hassan, B., & Ahmed, F. (2013). Awareness of autism in primary school teachers. *Autism Research and Treatment*, 2013, 1–5.
- Bella, M., & Evaggelidou, C. (2018). Does theatrical play promote social skills development in students with autism? A systematic review of the methods and measures employed in the literature. *Preschool & Primary Education*, 6(2), 1- 24.
- Bella, M., Evaggelidou, C., Koidou, E., & Tsigilis, N. (2019). The effects of a theatrical play program on social skills development for young children with autism spectrum disorders. *International Journal of Special Education*, 33(4), 828-845.
- Bottema-Beutel, K., & Li, Z. (2015). Adolescent judgments and reasoning about the failure to include peers with social disabilities. *Journal of Autism and Developmental Disorders*, 45(6), 1873–1886.
- Calder, L., Hill, V., & Pellicano, E. (2013). ‘Sometimes I want to play by myself: Understanding what friendship means to children with autism in mainstream primary schools. *Autism*, 7(3), 296– 316.
- Cappe, É., Poirier, N., Boujut, É., Nader-Grosbois, N., Dionne, C., Boulard, A. (2016). Autism spectrum disorder and evaluation of perceived stress parents and professionals: Study of the psychometric properties of a French adaptation of the Appraisal of Life Event Scale (ALES-vf). *Encephale*, 43, 321–325.
- Chang, Y-C., & Locke, J. (2016). A systematic review of peer-mediated interventions for children with an autism spectrum disorder. *Research in Autism Spectrum Disorders*, 27, 110.
- Cole, C., & McCurdy, E. (2014). Use of a peer support intervention for promoting academic engagement of autistic students with autism in general education settings. *Journal of Autism and Developmental Disorders*, 44(4), 883-893.
- Condrey, J. H. (2015). *General Education Teacher Perceptions of Self-Efficacy Regarding Teaching Students with Autism in Inclusion Settings*. Education Theses, Dissertations, and Projects Paper 148.
- Corona, Christodulu, & Rinaldi. (2017). Investigation of school professionals' self-efficacy for working with students with ASD: Impact of prior experience, knowledge, and training. *Journal of Positive Behavior Interventions*, 19 (2), 90 101.
- Cook, A., Ogden, J., & Winstone, N. (2017). Friendship motivations, challenges, and the role of masking for girls with autism in contrasting school settings. *European Journal of Special Needs Education*, 32(4), 1-15. doi:10.1080/08856257.2017. 1312797
- Denham, S. A., & Brown, C. (2010). “Plays nice with others”: Social-emotional learning and academic success. *Early Education and Development*, 21(5), 652680.

- Demirok, M. S., & Baglama, B. (2015). Perspectives of faculty of education students on autism spectrum disorders in North Cyprus. *Procedia - Social and Behavioral Sciences*, 190, 399–408.
- Ellis, J. T., & Almeida, C. (2015). *Socially Savvy: An assessment and curriculum guide for young children*. New York: Different Roads to Learning.
- Falkmer, M., K. Anderson, A. Joosten, and T. Falkmer. (2015). "Parents" Perspectives on Inclusive Schools for Children with Autism Spectrum Conditions." *International Journal of Disability, Development, and Education* 62 (1): 1–23.
- Hart, J., & Whalon, K. (2011). Creating social opportunities for students with an autism spectrum disorder in inclusive settings. *Intervention in School and Clinic*, 46(5), 273-279.
- Hirsch, B. (2016). Cooperative group play social skills training for children with social, Emotional, and behavior challenges: Impact on self-esteem and social skills. Philadelphia College of Osteopathic Medicine Psychology (Master Thesis) 374.
- Kamps, D., Thiemann-Bourque, K., Heitzman-Powell, L., Schwartz, I., Rosenberg, N., Mason, R., & Cox, S. (2015). A comprehensive peer network intervention to improve social communication of children with autism spectrum disorders: A randomized trial in kindergarten and first grade. *Journal of Autism and Developmental Disorders*, 45(6), 1809-1824
- Kasari, C., Locke, J., Gulsrud, A., & Rotheram-Fuller, E. (2011). Social networks and friendships at school: Comparing children with and without ASD. *Journal of Autism and Developmental Disorders*, 41(5), 533-544. doi:10.1007/s10803-010-1076-x
- Klopfer, M. K., Scott, K., Jenkins, J., & Ducharme, J. (2019). Effect of preservice classroom management training on attitudes and skills for teaching children with emotional and behavioral problems: A randomized control trial. *Teacher Education Division of the Council for Exceptional Children*. 42(1), 49-66.
- Lauderdale-Litten, S., Howell, E., & Blacher, J. (2013). Educational placement for children with autism spectrum disorders in public and non-public school settings: The impact of social skills and behavior problems. *Education and Training in Autism and Developmental Disabilities*, 48(4), 469 - 478
- Majin, M., Hashmi, S. I., and A. S. (2019). Teachers' knowledge and perception towards children with an autism spectrum disorder(ASD): A PRELIMINARY STUDY. *Opcion*, 35(SpecialEdition24), 690 –712.
- Majin, M., Hashmi, S. I., & Sombuling, A. (2017). Kesedaran guru di Kota Kinabalu, Sabah dalam pengetahuan dan persepsi terhadap Autism Spectrum Disorder (ASD). *Jurnal Psikologi Malaysia*, 31(3), 56-63.
- Maleki, M., Chehrzad, M. M., Reza Masouleh, S. H., Kazemnezhad Leyli, E. (2018). Social skills in preschool children from their parents' points of view. *J Holist Nurs Midwifery*, 28(4), 218-223.
- Badzis, M., & Zaini, M. F. (2014). Early Identification and Intervention of Autism Spectrum Disorder among Young Children. *IJUM Journal of Educational Studies*, 2(1), 67-89.
- Mavropoulou, S., & Padelidiadu, S. (2016). Greek teacher's perceptions of autism and implications for educational practice. *Autism*, 4(2), 173–183.
- Mazurek, M. O., Kanne, S. M., & Wodka, E. L. (2013). Physical aggression in children and adolescents with autism spectrum disorders. *Research in Autism Spectrum Disorders*, 7(3), 455-465. doi:10.1016/j.rasd.2012.11.004

- Munkhaugen, E., Gievik, E., Pripp, A., Sponheim, E., & Diseth., T. (2017). School refusal behavior: Are children and adolescents with autism spectrum disorder at a higher risk? *Research in Autism Spectrum Disorders*, 41-42, 31-38.
- Montroy, J. J., Bowles, R. P., Skibbe, L. E., & Foster, T. D. (2014). Social skills and problem behaviors as mediators of the relationship between behavioral selfregulation and academic achievement. *Early Childhood Research Quarterly*, 29(3), 298-309.
- Patton, D. U., Hong, J. S., Patel, S., & Kral, M. J. (2016). A systematic review of research strategies used in qualitative studies on school bullying and victimization. *Trauma, Violence, & Abuse*, 18(1), 3-16. doi:10.1177/1524838015588502
- Paynter, J., Sulek, R., Luskin-Saxby, S., Trembath, D., & Keen, D. (2018). Allied health professionals' knowledge and use of ASD intervention practices. *Journal of Autism and Developmental Disorders*, 48(7), 2335–2349.
- Platos M, Wojaczek K. (2018). Broadening the Scope of Peer-Mediated Intervention for Individuals with Autism Spectrum Disorders. *J Autism Dev Disord*,48(3):47– 750.
- Rabiner, D., Godwin, J., & Kenneth, A. (2016). Predicting academic achievement and attainment: The contribution of early academic skills, attention difficulties, and social competence. *School Psychology Review*, 45(2), 250 –267.
- Salleh, M, N., Mat Noor, N., & Samsudin, J. (2018). A Survey of Knowledge of Autism Spectrum Disorder Among Malaysia Polytechnic Communities. *International Journal for Studies on Children, Women, Elderly And Disabled*, 5, 65 –70.
- Schonert-Reichl, K. A. (2017). *Social and Emotional Learning and Teachers*. Spring 27(1).
- Scheuermann, B., Webber, J., Boutot, E. A., & Godwin, M. (2016). Problems with personnel preparation in autism spectrum disorders. *Focus on Autism and Other Developmental Disabilities*, 18(3), 197–206.
- Segall, M. J. (2008). *Inclusion of students with autism spectrum disorder: Educator experience, knowledge, and attitudes (Masters thesis)*. University of Georgia Theses and Dissertations.
- Shetty, A., & Rai, S. (2014). Awareness and knowledge of autism spectrum disorders among primary school teachers in India. *International Journal of Health Sciences*, 4(4), 80–85.
- Silveira-Zaldivar, T. (2019). *Utilizing participatory action research to implement evidence-based social skills interventions for elementary students with high functioning autism in inclusive classroom settings*. Ph.D. Dissertation. Northwest Nazarene University.
- Siti Marziah, Z., & Nor Shahirah, M. T. (2018). Cabaran membesarkan anak-anak autisme daripada perspektif ibu. *Jurnal Psikologi Malaysia*, 32(1), 58-71.
- Soltanifar, A., Akbarzadeh, F., Moharreri, F., Soltanifar, A., Ebrahimi, A. Mokhber, N., & Naqvi, S. S. A. (2015). Comparison of parental stress among mothers and fathers of children with Autistic Spectrum Disorder in Iran. *Iranian Journal of Nursing and Midwifery Research*, 20, 93-98
- Suhaily, M. S., & Siti Syuhada, A. R. (2017). Public awareness on the characteristics of children with autism in Selangor. *Malaysian Online Journal of Education*, 1(2), 73-8.
- Sulistoyoi, M., Choiri, A. S., & Hidayatulloh, F. (2017). Decreasing tantrums of a child with autism using brain gym. *European Journal of Special Education Research*, 2(2), 61-72. Doi:10.5281/zenodo.242907
- Toran, H., Westover, J.M., Salina, K., Suziyani, M., Mohd Hanafi, M. Y. (2016). The preparation, knowledge, and self-reported competency of special education teachers regarding students with autism. *Pertanika J. Soc. Sci. Humanity.*, 24, 185–196

- Ullah, S., Aqdas, I. M., Khan, N., Nabi, G., & Aziz, T. (2015). Awareness Regarding Autism in Schools' Teachers at District Lower Dir, Khyber Pakhtunkhwa, Pakistan. *Universal Journal of Medical Science*, 3(3), 55-59.
- Unchalee, S., Thidakorn, M. and Kamonrat, S. (2014). Social Skills Deficits of Students with Autism in Inclusive Schools. *Procedia – Social and Behavioral Sciences*. 116, 509-512.
- White, E. (2014). Science, pseudoscience, and the frontline practitioner: The vaccination/autism debate. *Journal of Evidence-Based Social Work*, 11(3), 269– 274.
- Wong, C., Odom, S. L., Hume, K. A., Cox, A. W., Fettig, A., Kucharczyk, S., Brock, M. E., Plavnick, J. B., Fleury, V. P., & Schultz, T. R. (2015). Evidence-based practices for children, youth, and young adults with autism spectrum disorder: A comprehensive review. *Journal of Autism and Developmental Disorders*, 45(7), 1951–1966.
- Zins, J., Weissberg, R., Wang, M., & Walberg, H. (2004). *Building academic success on social and emotional learning*. New York, NY: Teachers' College Press.
- Zagona, A., & Mastergeorge, A. (2016). An empirical review of peer-mediated interventions. *Focus on Autism and Other Developmental Disabilities*, 33(3), 131-141.
- Zawawi, Z. (2019). Pengetahuan, Sikap dan Persepsi Masyarakat Tentang Kanak-kanak Autism Spectrum Disorder (ASD). *Southern Asia Early Childhood Journal*. Vol. 8 (1), 19-29