

## A CRITIQUE OF DIAGNOSED AND SUSPECTED CASES OF SENSORY PROCESSING DISORDER WITHIN INTERNATIONAL SCHOOLS IN ISTANBUL, TÜRKİYE

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### ABSTRACT

*Many problems were uncovered regarding Sensory Processing Disorder (SPD) within international schools in Istanbul. The best method found for providing adequate support to SPD students was an integrative approach using Inclusive Pedagogy and Islamic Pedagogy, which extends beyond the classroom: A SEN framework reshuffle was argued to be essential in order to rectify disparity amongst students, requiring School Leadership Teams to work in systematic collaboration with Teachers, School Counselors, Occupational Therapists, Child Psychologists (where necessary) and parents in order to nurture the holistic development of each pupil. This study used an applied, exploratory research design. A self-designed, semi-structured interview was the instrument used for data collection. The population consisted of 6 respondents, whose collective experiences span across 11 out of the 36 International schools in Istanbul. The secured discussions and interviews provided personal accounts of their professional experiences with SPD students. Findings concluded that provisions for SPD students were sporadic and generally inadequate, with no recorded data on suspected or diagnosed students.*

**Keywords:** Sensory Processing Disorder, SPD, Autism Spectrum Disorder, Inclusive Education, Istanbul.

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## 1. INTRODUCTION

Istanbul, Türkiye is a densely populated, ethnically diverse city made up of many expatriate families seeking a school. Turkish Public / Private schools and international schools are the two main Educational Institutions. The Turkish Ministry of National Education (T.C. Millî Eğitim Bakanlığı) oversees all schools within the republic; International schools either hold accreditation solely from the Turkish Ministry or additionally from independent awarding bodies such as Cambridge Assessment for International Education. Neither are legally required to provide data on the population of SEN or suspected SEN students or any provisions in place for such students. International schools included in the sample were evaluated to reveal how (SPD) is viewed internally and how is it approached.

Upon discussion with concerned international school teachers, it appears that SPD may be on the rise in Istanbul. Availability of published data specifically concerning SPD within Istanbul's International schools is non-existent; this research aims to discuss provisions and began with a search for a clinical definition. Currently SPD remains unrecognized as a stand-alone disorder, but rather as a symptom of Autism Spectrum Disorder (ASD) according to the DSM-5 (McArthur, 2022). However, The National Institute of Health (NIH) states that Sensory Processing Disorder can be defined as *"...a neurological condition that interferes with the ability to processes information from our senses (Senses include tactile, auditory, visual, olfactory, taste, vestibular and proprioception,) so that we can respond*

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*appropriately to our environment.”* (Miller, Nielson, Schoen, Brett-Green (2009). This served as our working definition throughout the research for the purposes of clarity and concordance.

Through the researcher’s own experiences within international schools and SPD cases, an initial search for policies and processes in supporting students proved challenging. Many International schools either do not have (or do not share) policies on SEN detection, referral procedure, accommodation or external support, highlighting the need to examine the provisions for SPD, discussing the critical issues surrounding socio-cultural perceptions, recognition and treatment of the disorder.

Although The Turkish Ministry holds legislation and guidelines which detail how faculty, or parents can flag suspected symptoms of SEN; the implementation of these steps towards flagging, investigation and subsequent diagnosis varies from one international school to the next: The Ministry can provide a report and decision regarding what type of institution the child should be taught in. Upon initial inquiry the researcher found that school Leadership Teams (SLT) gave inconsistent answers regarding SEN provisions in general. This prompted the research questions underscoring the urgency for investigation into diagnosed and suspected cases of SPD. The 6 respondents who agreed to be interviewed have collective experience spanning across 11 out of the 36 International schools which operate in the region.

Through qualitative analysis the researcher conducted discursive interviews on the way SPD students are perceived by

adults within the schools as well as the wider society. Discussions centered on existing arrangements; working relationship between teachers, school psychologists, support staff, the SLT and parents. Findings of this research should inform and influence future policy making within these schools through the culmination of shared concerns and recommendations by professionals who are critical to the safeguarding and well-being of SEN students, especially pupils with extenuating circumstances; raising awareness on the potentially far-reaching consequences of inadequate provisions for students with SPD, (Özer, 2020).

The aims of the research are to;

- a. Critically evaluate whether provisions are adequate or failing and discuss why this is the case.
- b. Critically apply the theoretical framework to the problem statement to bring clarity to this prominent issue, and suggest ways forward in future research.

A comprehensive search of existing literature on Inclusive Education & Islamic pedagogy was conducted.

The Research Questions were as follows:

- a. Are International schools in Istanbul, Türkiye fulfilling their ethical and civic duty to students with diagnosed or suspected SPD in terms of provisions?
- b. Are International schools in the region aware of the legal framework concerning SEN provisions and is SPD

considered a condition warranting intervention and SEN referral?

- c. What are the other factors influencing support for these students, (cultural sensitivity surrounding SEN within the community): (D. Kayhan, personal communication, May 10<sup>th</sup> 2024).

## 2. REVIEW OF LITERATURE

Ms. Deniz Kayhan, Clinical Psychologist & Play Therapist has experience working with children with Autism & SPD; SPD only (without diagnosis of any other neurological condition), within her clinic and her former role as a shadow teacher. Her biggest concern was lack of understanding and awareness amongst faculty, leadership, parents and the wider community regarding sensory differences. Often children are labelled as *“spoiled... and they never stop to ask why does the child behave in this way?”* (D. Kayhan, personal communication, May 10<sup>th</sup> 2024). A keenness to understand the child’s avoidant, seeking or mixed-threshold behaviors is critical to provision; Kim Jacobs, an American teacher and mother to a child with SPD; argues that placing ourselves in the child’s shoes is key:

*“On the first day of classroom setup... just stand in the classroom with the door closed and listen. A blinking light... or that old drippy faucet will bother any child that has sensory symptoms. This small but annoying sound will be all they can hear instead of you... the next day, the student is already a day behind.”* (2024)



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Proprioception (body awareness) allows us take a sip of our drink while reading; walking without looking at our feet or not planning how much force to use when writing so the pencil does not snap. Such activities do not occupy our mental resources yet we take an advantage of it on a daily basis without even thinking about it.

Now let's think about a scenario where we cannot. This painting, is linked to proprioceptive challenges among those with Autism; inspired by a case who bumped into objects/people, stomped when walking; constantly refiguring the relationship between his body and the environment; searching in space.

Figure 1. *Search In Space*; a painting by Clinical Psychologist: Ms. Deniz Kayhan as part of the Art for Autism Exhibition to raise awareness on ASD as well as funds for children with ASD in Türkiye.

Further, in figure 1 (2022) Kayhan explains “*Proprioception (body awareness)*” is something most of us do not have to think about “*(knowing) how much force to use when writing so the pencil does not snap... constantly refiguring the relationship between his body and the environment; searching in space,*” but may be something a student struggle with. The shaded areas and multiple levels of space also evoke feelings of being lost or trapped: Sensory avoidant children may feel claustrophobic in the classroom whilst sensory seeking students may seek out more stimuli by banging the desk. Kayhan has worked on several voluntary projects to raise awareness including free in-school seminars (optional for staff) which were unfortunately, poorly attended.

Ms. Ferda Ilk, Occupational Therapist (OT) within Istanbul, argues that in her professional experience children had presented at her clinic and undergone sensory assessment without any other symptoms associated with ASD, for example (but not limited to) lack of eye contact, repetitive movements, stimming... (F. Ilk, personal communication, April 10<sup>th</sup> 2022). Ms. Kayhan has the necessary training to detect possible sensory differences in a child and she is able to refer parents for OT Assessment: *"(adequate provision) ...is a multidisciplinary process,"* requiring corporation from all stakeholders. (D. Kayhan, personal communication, May 10<sup>th</sup> 2024). The importance of synergy between working professionals who are on the frontlines and who possess the specialized training and knowledge of neurotypical child development and neuro-divergence echoed throughout the research: Understanding is the basis for formulating adequate provisions. Ms. Karima Enajah, a teacher and former Head of Elementary School, sighted lack of cooperation as one of the main obstacles to appropriate provision for students with SPD, stating that staff attitudes were generally negative or uninformed.

Interviewees argued that in their professional experience they are seeing more cases of possible SPD in schools with inconsistent employment of methodologies or strategies to accommodate. Unfortunately, this is unverifiable as international schools do not produce quantifiable data on suspected or diagnosed cases of SPD, types of provisions being offered; interventions; analysis of student development after actioning Individualized Education Plans (IEPs) and evaluation of the effectiveness of provisions. The researcher and the interviewees firmly agree that this is what is needed to improve

standards. The consensus of the interviewees was that the preoccupation of these schools is not with SEN provision and inclusion. The full extent of provisions cannot be investigated (Figure 2: *The Cycle of Inertia*).

Complicating the matter further is the debate surrounding what Inclusive Education means; in a 2009 article written by Armstrong, Armstrong and Spandagou, *'Inclusion: by choice or by chance?'* The writers argue that

*"'Inclusion' cannot simply be constructed as the opposite of 'exclusion'. Inclusion and exclusion are interrelated processes and their interplay constantly creates new inclusive/exclusive conditions and possibilities. From this perspective the 'grand narrative' of inclusive education is not as straightforward as it might seem when viewed superficially... both commonalities and differences characterize all learners..."* (2009)

Every learner is unique and true inclusion should accommodate each child's idiosyncrasies. Notably, the 11 schools included in the sample share a culture of enrolling and retaining any student without interview and often without entrance assessments which could possibly reveal sensorial needs. Although they do not market themselves as 'inclusive schools', in reality they are a melting-pot of learners, many of which do not receive adequate provisions: usually there is no SENCO (Special Education Needs Coordinator). Additionally, if parents withhold concerns due to social stigma or lack of awareness this compounds the problem, making support harder. Ms. Enajah (K. Enajah, personal communication, April 14<sup>th</sup> 2024), found her former schools to be generally lacking in their duty of care, nor did she feel that her professional advice was always welcomed.



International schools operate in a state of inertia in terms of inclusion reform for a myriad of reasons. Enajah (K. Enajah, personal communication, April 14<sup>th</sup> 2024) explained Leadership are committed to technological advancements and increased student intake which satisfies funders. In terms of teaching staff there was consensus amongst interviewees that there was commonly great inconsistency from one grade level to the next, one school to another: quality holistic care and inclusive provisions of SPD pupils was sporadic: Enajah noted two kinds of teachers: Teachers who either possessed formal teacher training combined with a positive, friendly disposition or teachers who lacked formal teaching qualifications but were mothers whose experience and intuition working with young people motivated them to work as advocates for their pupils, (K. Enajah, personal communication, April 14<sup>th</sup> 2024). In both scenarios you have teachers who are open to learning about the condition, eager to incorporate methods to assist the student in their learning. Such individuals were genuinely concerned about the school experience of their pupils and worked in cooperation with shadow teachers and OTs to implement strategies if they were accessible, however they often are not. Unfortunately, these individuals were argued to be few and far between, with majority lacking the awareness or keenness to offer special support to students. But as Oskarsdottir, Gunnþórsdóttir, Svanbjörnsdóttir, & Sigþórsson (2024) assert in '*Challenges and solutions in inclusive education in Iceland: School perspectives and action proposals*', teachers alone cannot be blamed for inertia: "...Although teachers assume a key role in the implementation of the policy, they alone cannot be made responsible for the work procedures required by the policy; rather, its adoption must be seen

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*as a co-operative effort including the participation of all who are professionally engaged at the various administrative levels of the education system.” (2024).*

Inclusive education with reference to Islamic pedagogy form the theoretical basis of this investigation. Whilst International schools in the country do not outwardly claim to be “Islamic schools”, each advertise as having some Islamic principles which permeate school life, such as mutual respect and afternoon prayers; each school had a majority Muslim student population.

Dhurumraj and Mudau (2022) contend that *“Islam places a strong emphasis on doing what is right rather than what is wrong.”* In addition, according to Sabrin (2010), *“when it came to rectifying errors generally, the prophet Muhammad (peace be upon him) emphasized to people the reasons why what they were doing was wrong... frequently, providing them with more suitable options.”* Some of the respondents revealed that this Islamic ethos was not always visible in the schools. There is a high demographic of senior management who identify as Muslim. On the authority of Tamim Al-Dari (may Allāh be pleased with him): The Prophet (peace be upon him) said, *“The religion is naseehah (sincerity).” We said, “To whom?” He (peace be upon him) said “To Allāh, His Book, His Messenger, and to the leaders of the Muslims and their common folk.”* (Sahih Muslim, hadith no. 7; 40 Hadith of Imam An Nawawi). Accommodations of school routines, classroom décor or procedures were resisted by several stakeholders. Kayhan (D. Kayhan, personal communication, May 10<sup>th</sup> 2024) recalled her experience as a shadow teacher in one international school: she recommended a sensory corner for her SPD student to tackle sensory overload, not to be

exclusively for this child but for the whole class to use for brain-breaks. The teacher refused and resented having an external professional make suggestions for her classroom. The school did not mandate it despite the '*The basic principles of Special Education*' via The Presidency of the Republic of Türkiye Legislation Information System (2024) framework which stipulates that accommodation must be made for children with learning, socio-emotional or other differences. Kayhan asserts, however that she does not consider this a matter of international schools versus public schools: rather it all depends upon each school's infrastructure, whether they have a culture open to adaptation and change.

In a 2009 study conducted in Konya, Türkiye, Hakan, Çeliköz and Seçer measured the relationship between self-efficacy and attitudes on inclusion amongst pre-school teachers and student teachers. Student teachers who completed the special educational needs training with the Department of Preschool Education in Selcuk University had a more positive attitude towards inclusive classrooms than teachers and did not view difference as a negative. However, the pre-school teachers had higher self-efficacy (perhaps due to having more teaching experience). Hakan et al. concluded that student teachers needed more education on SEN prior to qualifying as teachers and that all teachers needed more support services. This was true in 2009, but could be the key to improving current provisions, raising awareness and providing training to key persons. Seçer investigated the correlation between teacher training and positive attitudes further in her 2010 study '*An analysis of the effects of in-service teacher training on Turkish preschool teachers' attitudes towards inclusion*'. 66 pre-school

teachers in Türkiye were observed prior to the study and after completing the INSET training; with majority showing more openness towards SEN students inclusivity within mainstream schools. Conclusively, teacher training is the key, however teachers also need to be willing to undergo such training. The researcher encountered differing views on SPD within teaching and management in Istanbul International schools: at times the cultural perception of SPD is that it doesn't exist: "naughty children" are seen as requiring harsher discipline, for example denying the child an opportunity to get out of their seat and stretch.

Further, Arslan & Sağlam, (2021) in an important study titled '*Investigating the Effects of Sensory Development Support Program Prepared for Mothers on Sensory and Social Development of Children with Autism,*' measured the improvement in sensory seeking or avoidant discomfort levels in children whose mothers who undertook sensory support training over a 16-month period. Improvements in behavior, regulation and overall well-being were reported in all test subjects as well as social development. Studies like these prove yet again that willing participation, training and collaboration yields tangible results which could lead to measurable provisions and real societal change.

### **3. RESEARCH METHODOLOGY**

This qualitative, discursive study used secondary data visual analysis, reviewed existing literature and collected primary data through interviews with professionals including Clinical Child Psychologist Deniz Kayhan MSc, Ms. Ferda İlk, Occupational Therapist, for her detailed insights into SPD, assessments and

reports. Ms. Karima Enajah, former International Elementary school Principal and current teacher, for her thorough insights into the education system (public and private sectors). Three School Counselors were also secured for interview: Ms. Lolita Horani; Ms Sondoss Al Dimasi and Ms. Hatice Recepoğlu.

Due to the discursive nature of this research, interviews formed the basis of analysis. The population was formed of 6 respondents, whose collective experiences span 11 International schools in Istanbul, with some having experience within the public-school sector comparatively. The secured interviews provided personal accounts of their professional experiences with SPD students. The study included two groups. Group 1: Educators (one of whom was a former Head of Elementary school) and Group 2: External services: Psychologists and OTs.

A purposive sampling method was employed due to the specific insights required for this research; drawing from the collective experiences of the 6 respondents. Questions were emailed in advance to aid preparation and careful consideration of responses. Throughout each interview, the open-ended, semi-structured questions allowed respondents to add further information.

The instrument for data collection was a series of self-constructed, semi-structured, open-ended interview, requiring several sampling techniques. To ensure the quality and validity of research findings the inquiry commenced with purposive sampling technique, used to identify professionals who had experience working with a varied demographic of young people who attend these schools, moreover, who have expected or

diagnosed SPD, drawing from their insights about provisions for SPD students. In order to eliminate selection, bias the criteria were as follows:

- Respondents needed a minimum of 1 years' work experience in international schools in Istanbul (either as an employee or external service worker).
- Having direct contact with students in the case of teachers, school counsellors (or being directly involved with policy and other overarching factors which affect provisions for students with SPD.)
- 'Employees' included in the study were limited to teaching staff, school counselors and SLT. 'External service workers' were restricted to OTs, Child Psychologists, Play Therapists and shadow teachers (who are most comely employed by parents and guardians).

The researcher utilized the network of teachers, professionals and former upper management within their contacts. Each were extremely cooperative in supporting the background research of this study from obtaining the legal framework from '*The basic principles of Special Education*' via The Presidency of the Republic of Türkiye Legislation Information System (2024) on SEN accommodation and providing background information on international schools in general, particularly concerning policies, the strength of internal communication and SEN referral between departments. Notwithstanding, some candidates did not agree to interview due to concerns about ramifications from

their employers (SLT), or feelings of low efficacy on SEN commentary.

This led to adapting the sampling method to a combination of convenience and snowball sampling, ensuring the research could be concluded within the allocated timeframe: Further participants were approached directly via email and telephone through direct referral from the initial network of professionals (or were proceeded towards by the network and upon agreement to participate - their details were shared.) Considering the concerns of the first group, respondents were never approached via their school administration this then led to the new respondents also referring to their colleagues. This process culminated in the experienced, willing and accessible group of 6 interviewees which met the selection criteria. Ensuring diversity in the study: the group was diverse enough to cover each role outlined in the criteria with some interviewees having performed multiple roles throughout their career in education / supporting young people.

The method of data collection was as follows:

- Researcher's observations as a teacher within the subset of schools.
- Interviews.
- SEN Studies conducted in Türkiye.

This applied, exploratory research was heavily reliant upon the primary data collection (semi-structured interviews), drawing from the interviewees' professional interpretation of their experiences with SPD within the schools. This interview type

allowed for follow up questions and respondents to elaborate on areas of concern to them which the researcher may not have considered. A working definition of SPD was first sought via the National Institute of Health – NIH, (Miller, Nielson, Schoen, Brett-Green, 2009) providing participants with a clear, unambiguous baseline for discussion; then open-ended interview questions were formulated. Some structured questions were sent to respondents ahead of time. Interviews were conducted via zoom or email. Ms. Ferda İlk, (OT) was unavailable for interview within the timeframe and so prior correspondence over telephone messaging was included in the research (SPD had been discussed at length prior to the research proposal). Institution names were not included in the research as per the request of respondents. The interview with Ms. Deniz Kayhan, Clinical Child Psychologist & Play Therapist, involved discussions centering on SPD student's position as vulnerable and misunderstood in most cases. (D. Kayhan, personal communication, May 10<sup>th</sup> 2024). Kayhan's contribution towards addressing this disparity and raising awareness came in the form of artistry and her 'Art for Autism' paintings were then explored as part of the secondary data visual analysis employed for this research (refer to Literature Review section) - (Figure 1. Kayhan, *Search In Space*; Art for Autism Exhibition, Autism Awareness Day, Türkiye, 2022.)

Whilst conducting the first interviews, further collection of secondary research data involved a google scholar search for studies involving students with SPD within international schools in Istanbul; with no retrieval data found, the search was widened to include all of Türkiye. Unfortunately, no clinical studies could be found on SPD in isolation (perhaps due to



classification: SPD does not appear in the medical journals as a stand-alone condition, DSM-5 (McArthur, 2022)) For this reason, studies which measured the changing attitudes amongst teachers towards SPD in Autistic children pre and post INSET (Seçer, 2010); measuring of the relationship between self-efficacy and inclusion amongst qualified and student-teachers (Hakan et al. 2009); and mothers prior to and after completing the sensory development support program (Arslan and Sağlam, 2021), were included in this study to provide some background and context. Other articles debating SPD being a symptom of ASD only: the correlation between behavioral problems, language impairment and SPD in Autistic students (Gundogdu, Aksoy and Eroglu, 2023; Akarsu, Savaş, Karali and Çelik, 2020), were read but discounted from the study due to generality.

Searches did not recover any studies on academic performance or provisions for students with SPD, national statistics on SPD in Independent schools or case studies with recommendations specific to SPD within International schools in Türkiye.

After the search was broadened to include SEN studies within the Republic, Seçer (2010), *'An analysis of the effects of in-service teacher training on Turkish preschool teachers' attitudes towards inclusion'* was uncovered. Despite the age of this study, it was important to include any existing research on this topic which was specific to Türkiye for the sake of relevance. This also served as an indication of the importance of this current study and the need for further research in the area of SPD provisions. Seçer (2010) contends that *"Any implementation of an inclusive policy is largely dependent on educators' attitudes."* This

conclusion echoed from both Kayhan's and Enajah's interviews, (K. Enajah, personal communication, April 14<sup>th</sup> 2024; D. Kayhan, personal communication, May 10<sup>th</sup> 2024). As inclusive education was thematic across the data, a comprehensive literature search continued with critical evaluation of Inclusive Education globally as well as established theories on Inclusive pedagogy. Articles concerning school inclusion were shortlisted to the most recent (Óskarsdóttir et al., 2024; Moriña, 2020). *Approaches to Inclusive Pedagogy*; (Florian & Spratt, 2013). *Enacting inclusion...*' and Jacobs' (2024) advisory- action article for teachers on how to ensure adequate provisions within the classroom. Lastly, Islamic pedagogy (Dhurumraj & Mudau, 2022) was explored, as the schools were made up of almost 100% Muslim student and staff population (although the exact data is unpublished).

The study employed exploratory techniques during the data analysis procedure. Close textual analysis of the literature preoccupied with inclusive education was examined to determine the frameworks which facilitate inclusivity within schools. Throughout these readings it was discerned that the term "inclusive education" is broad and fluid, differing according to place, circumstance and time (Oskarsdottir et al., 2024). Therin the researcher found a complex dialogue surrounding equity and how to achieve an 'umbrella' education setting: where provisions are adequate for all. The socio-cultural aspect of this discussion amongst educators and theorists pointed again towards the need for further research in this area. Quantitative longitudinal studies to determine the best working definition to adopt with measurable strategies of inclusion.

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Findings from the interviews were;

- a. First transcribed.
- b. A mixed analytical method was employed:
  - i) descriptive method to determine what perspectives and professional insights the respondents had concerning SPD cases in the various schools they worked at.
  - ii) diagnostic analysis to discuss why the situation was such.
  - iii) Prescriptive: discussing ways forward and drawing from existing theories and models.
- c. The analyzed data was discussed in light of the published literature included in the study. Findings were concluded with ways forward outlined.

#### 4. RESULTS AND DISCUSSION

Close analysis of the 6 respondents' viewpoints revealed patterns of agreement in terms of a general feeling of inertia and systemic shortcomings within international schools, represented below in the researcher's diagram: '*The Inertia paradigm*' of international schools (figure 2.) Summarized, is the prevailing cycle of inadequate provisions for SPD students: a lack of internal collaboration between departments and subsequently a lack of referrals to external support services such as OTs, shadow teachers or Clinical Child Psychologists (where necessary).

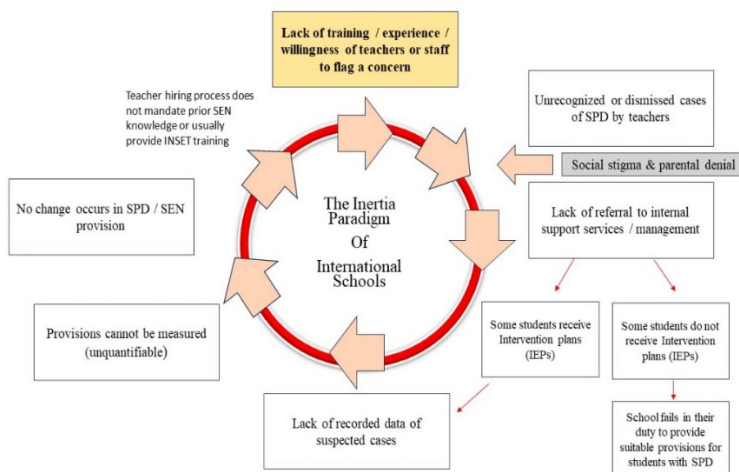


Figure 2. What the researcher has coined - *The Inertia paradigm*: the pattern that currently exists in international schools is illustrated above, however in the case of experienced or qualified teachers, referrals do happen (stage 2) but are often (however not always) met with resistance from management or parents.

The 11 schools included in the subset rarely shared their inadequacies with parents or referred SEN students for assessment. Students were retained in the absence of any SENCO; in most cases no formal IEP was made. Enajah explained that one setting she worked at had a dedicated school Psychology department which she was very enthused about, however referrals of SPD and other SEN cases were ignored. It transpired that the department served to evaluate gifted students and apply them to programs that would better advance the school's reputation: a marketing ploy. Oskarsdottir et al. (2024), evaluating the combined works of Anderson, Boyle, & Deppeler., 2014; Florian & Black-Hawkins, 2011; Florian & Spratt, (2013) illustrated that "an education system

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*which supports inclusive education may be regarded as an ecosystem consisting of linked structures, or sub-systems. Each structure contains agents responsible for administration and policy-formation, the operation and organization of schools as well as learning and teaching.”* How well each part of the “ecosystem” (2024) coordinates, the level of synergy between each school department, determines the effectiveness of the Inclusive pedagogy. The 11 schools discussed do not function as “ecosystems” (Oskarsdottir et al., 2024; Figure 3. Below.)

SPD students are situated uncomfortably within the education system in Istanbul: measures are rarely taken to accommodate their needs in their resident school; in addition, their condition is not severe or problematic enough to warrant referral to Special Needs schools (Özel Eğitim Okulları), which are reported to provide education and support to students with acute physical or mental conditions which would be insufficiently met elsewhere. SPD students are largely ignored or reprimanded with their underlying sensorial needs remaining unmet. A student may physically make it through the school day - at the cost of a sensory overload in the evening. Another pupil may be sensory-seeking in the classroom which is interpreted as disruptive behavior and experience frequent consequences, perhaps avoidable if they had an outlet such as increased physical education, mini-breaks or sensory toys.

Model A: Inadequate Provisions

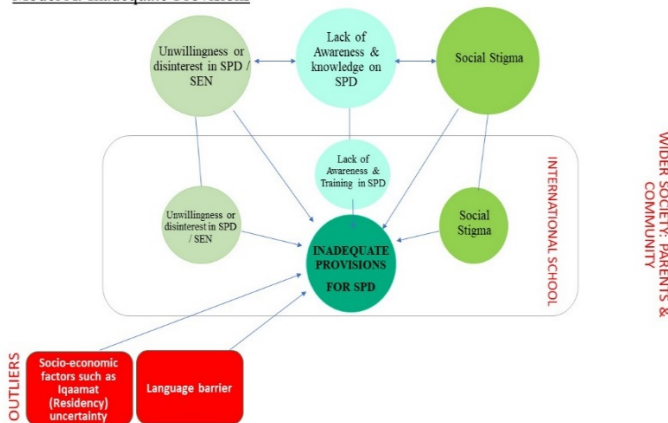


Figure 3. *Inadequate Provisions*, Gibson. A. L., 2024 (own diagram).

Figure 3, Model A, above, represents the current situation across the 11 schools discussed according to 5/6 respondents, with School Counsellor Lolita Horani (L. Horani, personal communication, May 13<sup>th</sup> 2024), presenting two outliers which neither the researcher, respondents nor the existing literature had factored in previously: socio-economic factors and language barriers.

Outlined is the low-awareness level of the wider society and school community, largely unwilling or disinterested in equity for SEN pupils. Lack of knowledge and training combined with a social stigma of special needs, particularly neuro-divergence. All interviewees agreed this was prevailing: that often parents fear how their child will be treated once labelled as “different”, with the exception of School Counsellor Horani (L. Horani, personal communication, May 13<sup>th</sup> 2024) who revealed that

often socio-economic factors resulted in lack of parental cooperation - hindering provisions, in her professional experience. External services were needed in the case of some students with actionable strategies to use in school; IEPs which target specific behavioral challenges by looking at the root causes, for example high levels of discomfort. In turn, recommendations would be outlined addressing the problem at its core. In addition, some families were unaware of how long referral processes take and that they could approach an OT independently. As therapy is a 'new-age' concept to many families (culturally it was stated to be rare amongst the majority Arab, Uzbek, African expatriate community - (K. Enajah, personal communication, April 14<sup>th</sup> 2024)) this unknown territory was met with apprehension - *'how long will my child need therapy and what if we don't get our residency permit renewed - we would just have to relocate overseas and begin the process all over again...'* Horani further contended that lack of Turkish language skills was a major obstacle in parents agreeing to external services involvement. These insights were valuable outliers unknown to the researcher.

Figures 4 and 7 below represent the recapitulated findings of the interviewee group and literature with further elucidations. Figure 4. Model B, below: A partial-provision, represents the current situation in settings where a dedicated professional is either seeking or providing some level of appropriate provision for the students with SPD. This is either a teacher, principle, school counsellor or shadow teacher, representing a form of "breakthrough" actively addressing inadequate provisions through whichever limited means are at their disposal.

A mediating bridge has been put in place to address the outliers – school administrators and psychologists could assist with assessment forms and translations where needed. A second mediatory action has been suggested here: campaigns to raise awareness on a societal level, for example advertisements at bus stands, billboards, infomercials, leaflets distributed at doctors' offices and public seminars could help to reduce stigma. This initiative would need to come from SEN organizations or other authorities. Furthermore, INSET within schools would reduce ignorance on SPD and could increase accommodations;

Model B: 'The Breakthrough Supporters'

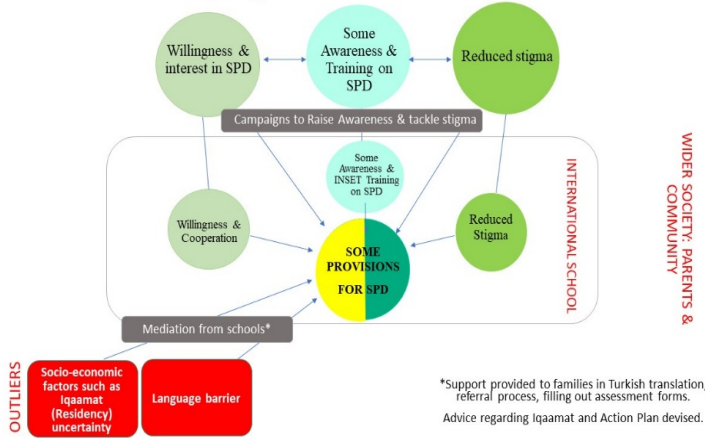


Figure 4. *The Breakthrough Supporters*, Gibson. A. L., 2024 (own diagram).

As Maslow's *Hierarchy of Needs* (Figure 5., Mcloed, 2024) indicates – the physiological needs of the child are the most urgent and fundamental to be met before any learning can take place. As Kayhan explains (D. Kayhan, personal communication,



May 10<sup>th</sup> 2024)) the student with SPD is struggling with the 7 sensory systems that most people take for granted. Each system must be regulated (either through increasing or reducing sensory input) before the tip of the pyramid: *cognition & intellect, behavioral control* and thus, academic learning, takes places. (*The Sensory Pyramid of Learning*, Foundation for Development, Hathaway, 2019-2024). In conclusion, whilst majority of the class are on Maslow's pyramid, the SPD pupil without adequate provision is at a major disadvantage, often unable to progress through Maslow's hierarchical stages without the appropriate intervention.



Figure 5. Maslow's Hierarchy of Needs, Mcloed, 2024.

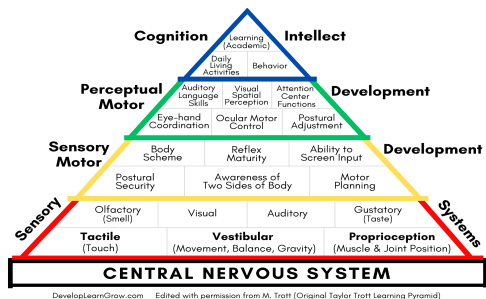


Figure 6. The Sensory Pyramid of Learning, Foundation for Development, Hathaway, 2019-2024.

Ms. Sondoss Al Dimasi, BA Child & Youth studies with Psychology and 3 years' experience as a homeroom teacher and 2 years as a Student Counsellor in Istanbul, argued that SPD appears to be categorized as a learning difficulty and usually a private tutor is recommended for the child to raise academic attainment. Al Dimasi believes further attention should be given to supporting cognition and information processing.

*"...the students are only supported from an academic aspect, however, there is a lack of awareness on what strategies can be followed to help progress sensory receiving skills. As a counselor, I would offer teachers and parents strategies and tips that promote cognitive processing with a focus on lagging skills. Nevertheless, I believe more awareness and education is required to further support the progress of children."*

(S. Al Dimasi, personal communication, May 14<sup>th</sup>, 2024).

SPD does not necessarily correlate to low ability but rather the *symptoms* of SPD could hinder the student's learning, causing developmental delay: the surface reading may be that the pupil is falling behind academically; lack of knowledge often results in the student not receiving the appropriate accommodations to address the root cause: their physiological - sensorial needs are not being met (Figure 5, Mcloed, 2024; figure 6. Hathaway, 2019-2024). Al Dimasi argues that *"In my opinion, it should become a requirement for parents and educational systems to ensure an external professional assessment or diagnosis when suspecting apparent symptoms that need specific accommodation which would help support that child in following a series of strategies."* (S. Al Dimasi, personal communication, May 14<sup>th</sup>, 2024). This issue of formalization brings us back to 'The Cycle of Inertia (figure 2.) that must be broken.

Figure 7. Model C below: in this supreme scenario, all stakeholders work in full collaboration to achieve adequate provisions for SPD students. Even further mediatory strategies have been employed: The school would assign a trained SENCO, providing coordinated adaptations in school and supporting parents to follow up at home. A Sensory development Training Program (Arslan and Sağlam, 2021) for caregivers has been introduced, in-line with proven data that willing participation and training of mothers with SPD children has a positive effect on behavior and sensory regulation. The introduction of INSET in Figure 4 & 7, representative of the 2009 study conducted in Konya, Türkiye, by Hakan et al. (2009) measuring the relationship between self-efficacy and attitudes on inclusion amongst pre-school teachers and student teachers

with teachers demonstrating positive attitudes towards inclusion post training.

Model C: Full Cooperation & Collaboration

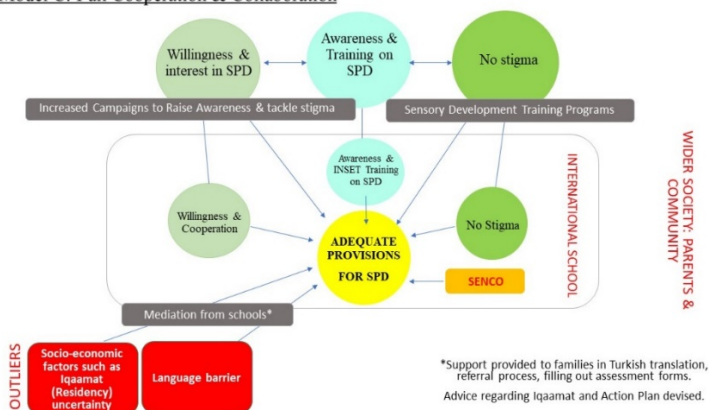


Figure 7. *Full Cooperation & Collaboration*, Gibson. A.L., 2024 (own diagram).

## 5. CONCLUSION AND RECOMMENDATIONS

Generally, International schools in Istanbul are failing in provisions and in fulfilling their duty of care to SPD students; knowledge of legal or procedural frameworks on SEN is not disseminated throughout the school population; SPD remains ambiguous and misunderstood by most in-school professionals. Some impactful, dedicated individuals are making a major difference to these students learning experience; however, these educators are sporadic and scattered.

Numerous factors to provision levels were discussed: principally, attitudes, stigma and the measure of awareness; several socio-cultural outliers were identified including

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language barriers, lack of information on accessing external support and residency uncertainty.

Additional qualitative research measuring attitudes and awareness levels within schools, limited to one or two stakeholders, for example teachers, would provide deeper insight into this problem.

Further (quantitative) studies should be conducted within a selection of international schools who have successfully identified students with sensory support needs. A blueprint could be provided for the school, detailing procedures for referral and intervention. Documenting this process would result in invaluable data, serving as an example for other international schools to model.

Future studies should adopt causal analysis techniques which quantify the cause and effects of lack of provisions for learners with SPD. Case studies and parent – student accounts of their lived experiences in private sector schools in Istanbul should be included with secondary data analysis of child psychological and OT reports (with obtained consent and names removed in order to safeguard respondents.) Perhaps this form of numerical data could serve as an incentive for system reform.

Kayhan, Enajah (K. Enajah, personal communication, April 14<sup>th</sup> 2024; D. Kayhan, personal communication, May 10<sup>th</sup> 2024), and Seçer, (2010) summarized the solution to Institutional inertia in the capital by sighting attitudes (and awareness) as the route to change, which needs to come from multiple angles – all stakeholders working in partnership to support vulnerable students both in and outside of school. Essentially a top-down

systemic change involving policy reform, inspection and mandated 'provision improvement'. An awakening at Leadership level would largely determine any real change for these students in the future within school.

Research supports the effectiveness of SEN INSET in raising awareness and promoting positive attitudes towards inclusion, one which accommodates all learners, (Seçer, 2010). Therefore, raising awareness and training are needed concurrently. Training should include a basic understanding of '*Maslow's Hierarchy of Needs*' (figure 6. Mcloed, 2024) and '*The Sensory Pyramid of Learning*' comparatively (Figure 7. Hathaway, 2019-2024). Kayhan's Art pieces (Kayhan, *Search In Space*; Art for Autism Exhibition, Autism Awareness Day, Türkiye, 2022.) and similar works could help in this regard, for example, a mobile art exhibition truck that tours schools in much the same way as mobile libraries work. In addition, adopting an integrative approach involving Islamic principles of mercy, adaptation and sincere advice (Sahih Muslim, hadith no. 7; 40 Hadith of Imam An Nawawi), with Inclusive pedagogy, whilst allowing professionals to lead, is the way forward.

As inclusion is a "*process*" (Armstrong et. al, 2009), each school should hold a formal discussion on what "inclusion" *should* look like within their setting: what measures they intend to take in regard to all SEN students. Although schools cannot diagnose – they can evaluate and support.

Although there is a glass ceiling within international schools, (K. Enajah, personal communication, April 14<sup>th</sup> 2024) homeroom teachers are still argued to hold a special and impactful position in an SPD student's school life – in all student's school lives. In

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the researcher's experience, one case of a mixed-threshold student revealed that a homeroom teacher purchased foam cushions as the chair was too hard for her pupil; a sensory drinking cup in his favorite color (green) was gifted to him for tactile stimuli. Such gestures are effectual and further strengthen the relationship between teacher and student. This is part of the nurturing role of a teacher: to make the child feel physically comfortable. Jacobs (2024) emphasized this in her action article for teachers: *"SPD is real and is not something that should be ignored. As teachers, you often get the best part of the day for the SPD child. They need a quiet place to breathe and to feel like you really care about them as a person."* (Jacobs, 2024).

Overall, SPD continues to be a hidden issue with SPD students overlooked or quietly reprimanded behind school walls. A major paradigm shift is unlikely to occur unless the qualified, experienced professions discover new ways to extend their knowledge across schools: further studies should follow in this vein, as these stakeholders are achieving the highest impact in the area of provisions, albeit limited.

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