

Assessment Practices for Children with Autism Spectrum Disorder in Specialized Centers in Algeria: A Qualitative Study in Mila Province

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Abstract

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder with social communication deficits and restricted or repetitive behaviors. Early and accurate assessment is essential in diagnosing, planning intervention, and providing long-term support for children with ASD. The aim of this study was to investigate assessment practices in the centers of specialization in the Mila Province (Algeria) and to identify the main difficulties faced by professionals during the assessment process. A qualitative, descriptive design was used. The data were collected through semi-structured interviews with seven professionals working with children with ASD in psycho-pedagogical and specialized centers. The data collected were analyzed through thematic analysis. Assessment practices were found to be based on clinical observation, parental interviews and professional experience. Use of standardized diagnostic tools such as ADOS-2 and.

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Introduction

Autism spectrum disorder (ASD) is a neurodevelopmental disorder characterized by persistent difficulties in social communication and interaction associated with restricted and repetitive patterns of behavior, interests or activities. ASD has been increasingly prevalent worldwide in recent years, raising the importance of early identification and accurate assessment as a public health concern.

Diagnosis and management of children with ASD relies heavily on assessment. It allows professionals to identify the child's cognitive, behavioral, communicative and adaptive functioning and to develop suitable intervention programs. International guidelines recommend the implementation of standardized and multidisciplinary assessment procedures to assure diagnostic accuracy and individual care.

However, the assessment practices in specialized centers in Algeria are still poorly documented. Many institutions are challenged by limited resources, absence of standardized tools and lack of professional training. Thus, the assessment methods may differ between centers according to local expertise and institutional circumstances.

The current study aims to examine the practices of evaluation with children with ASD in psycho-educational and specialized centers in the province of Mila-Algeria. Also it aims to identify the most important problems faced by professionals during the assessment process and to analyze the gap between theoretical recommendations and the clinical practice.

Theoretical Framework

Autism Spectrum Disorder

Autism Spectrum Disorder (ASD) is a neurodevelopmental condition characterized by persistent deficits in social communication and social interaction, in addition to restricted and repetitive behaviors, interests, or activities. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR), symptoms generally appear during early childhood and vary in severity from one individual to another. The

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diagnostic process for ASD relies heavily on identifying atypical behaviors, as there are no known genetic markers or physical features for the disorder (Lemler, 2024, p. 3).

ASD is considered a heterogeneous condition because children with autism may differ significantly in language abilities, cognitive functioning, adaptive behavior, and social skills. Some children may present severe communication difficulties and intellectual impairment, while others demonstrate average or high intellectual abilities with milder social deficits. This variability necessitates a comprehensive assessment approach that considers the full spectrum of presentations (Chaima et al., 2023).

Research has shown that early identification and intervention considerably improve developmental outcomes for children with ASD. Consequently, assessment has become a fundamental component in the diagnostic and therapeutic process. It serves to accurately identify individuals with ASD and to inform tailored interventions that address their specific needs (Asar et al., 2025, p. 2).

Assessment of Autism Spectrum Disorder

Assessment refers to the systematic process of collecting information about a child's developmental, cognitive, behavioral, communicative, and social functioning. In the context of ASD, assessment serves several important purposes:

- identifying autistic characteristics;
- establishing an accurate diagnosis;
- determining the child's strengths and difficulties;
- planning individualized intervention programs;
- monitoring developmental progress.

The assessment of ASD generally requires a multidisciplinary approach involving psychologists, psychiatrists, speech therapists, and specialized educators. International recommendations emphasize the importance of combining clinical observation with standardized diagnostic tools and parental interviews. This comprehensive approach is vital given the significant variability in symptom presentation and severity across individuals with ASD, which can manifest from early childhood and evolve throughout developmental stages (Ahmad et al., 2023, p. 6).

Several instruments are commonly used in ASD assessment, including:

ADOS-2 (Autism Diagnostic Observation Schedule): a standardized observational tool used to evaluate communication, social interaction, and repetitive behaviors;

ADI-R (Autism Diagnostic Interview-Revised): a structured interview conducted with parents to collect developmental and behavioral information;

CARS-2 (Childhood Autism Rating Scale): a scale designed to assess the severity of autistic symptoms;

M-CHAT (Modified Checklist for Autism in Toddlers): a screening tool used for early detection of autism risk in young children;

WISC (Wechsler Intelligence Scale for Children): a cognitive assessment tool frequently used to evaluate intellectual functioning.

Despite the importance of these standardized instruments, their availability and use may vary according to institutional resources and professional training.

Assessment Challenges in Specialized Centers

Several studies have highlighted difficulties related to ASD assessment practices in developing countries. These challenges often include a scarcity of qualified personnel, limited access to validated diagnostic tools, and insufficient funding to support comprehensive evaluation services (Fuentes et al., 2020, p. 966).

These challenges include:

limited access to standardized diagnostic tools;

insufficient professional training;

lack of multidisciplinary collaboration;

shortage of specialized centers;

delayed diagnosis and intervention.

In Algeria, assessment practices remain largely dependent on institutional conditions and the experience of professionals. In many cases, practitioners rely mainly on clinical observation and interviews rather than standardized assessment instruments. This situation may affect diagnostic consistency and the quality of intervention planning.

Understanding current assessment practices in specialized centers is therefore essential for identifying existing limitations and improving services provided to children with ASD and their families. While traditional diagnostic methods are highly effective, the absence of studies utilizing a combination of developmental history and gold-standard diagnostic instruments like the ADI-R and ADOS-2 in sub-Saharan Africa highlights a significant gap in the literature regarding ASD assessment practices in these regions (Franz et al., 2017, p. 732; Qin et al., 2024, p. 5).

Methodology

Research Design

This study adopted a qualitative descriptive design to explore assessment practices used with children diagnosed with Autism Spectrum Disorder (ASD) in specialized centers in Mila Province, Algeria. A qualitative approach was considered appropriate because it allows a deeper understanding of professionals' experiences, practices, and perceptions regarding the assessment process.

Study Setting

The study was conducted in several psycho-pedagogical and specialized centers that provide educational and therapeutic services for children with ASD in Mila Province. These institutions receive children presenting developmental and behavioral difficulties and offer different forms of psychological, educational, and rehabilitative support.

Participants

The participants consisted of seven professionals working directly with children with ASD in specialized centers. They included psychologists and practitioners involved in assessment and follow-up procedures.

Participants were selected using purposive sampling based on the following criteria:

professional experience with children with ASD;

direct involvement in assessment practices;

willingness to participate in the study.

To ensure confidentiality, participants' identities and institutions were anonymized.

Data Collection

Data were collected through semi-structured interviews conducted with the participants. The interviews focused on several themes, including:

assessment procedures used in the centers;

diagnostic and observational practices;

use of standardized tools;

professional training;

challenges encountered during assessment.

The semi-structured format allowed participants to freely describe their experiences while maintaining a common framework for data collection.

Data Analysis

The collected data were analyzed using thematic analysis. Interview responses were carefully reviewed and organized into major themes related to assessment practices, institutional challenges, professional resources, and limitations of current procedures.

This method made it possible to identify recurring patterns and similarities in participants' experiences and perceptions.

Ethical Considerations

Participation in the study was voluntary. Participants were informed about the objectives of the research and agreed to take part in the interviews. Confidentiality and anonymity were respected throughout the study, and the collected information was used exclusively for academic purposes.

Results

The analysis of the interviews revealed several important themes concerning assessment practices for children with Autism Spectrum Disorder (ASD) in specialized centers in Mila Province.

Referral and Admission Procedures

According to the participants, most children are referred to specialized centers after receiving an initial diagnosis from a psychiatrist or neurologist. In many cases, families seek professional help because of delayed language development, social difficulties, behavioral problems, or school adaptation issues.

Participants indicated that admission procedures differ from one institution to another depending on available resources and institutional policies. Some centers require a prior medical diagnosis before accepting the child, while others rely initially on internal psychological observation and educational evaluation.

Assessment Practices Used in the Centers

The interviews showed that assessment practices are mainly based on:

clinical observation; interviews with parents; behavioral evaluation; developmental history.

Most participants reported relying heavily on direct observation during interaction sessions with the child. Observation focuses primarily on:

communication abilities; eye contact; repetitive behaviors; social interaction;

adaptive functioning.

Parental interviews are also considered an essential source of information, especially regarding developmental history and behavioral characteristics observed at home.

Although some professionals mentioned the use of psychological and cognitive tests, the results indicated limited use of internationally standardized ASD assessment tools such as ADOS-2 or ADI-R.

Limited Availability of Standardized Tools

One of the major findings of the study concerns the lack of standardized diagnostic instruments in the participating centers. Most professionals explained that assessment procedures often depend on personal experience and clinical judgment rather than structured diagnostic protocols. This contrasts with diagnostic approaches in other countries, such as Morocco, Mexico, and the United States, where instruments like the ADOS-2 and ADI-R are frequently utilized to ensure comprehensive and consistent ASD identification (Hassib et al., 2023, p. 3; Valdez et al., 2022, p. 10).

Participants identified several factors contributing to this limitation, including:

lack of access to standardized tools;

insufficient professional training;

high cost of assessment materials;

absence of specialized training programs.

As a result, assessment practices may vary considerably between professionals and institutions.

Professional and Institutional Challenges

The interviews highlighted several challenges affecting the quality of assessment services.

Lack of Specialized Training

Many participants reported limited training in ASD assessment and expressed the need for continuing professional development in diagnostic methods and standardized tools.

Insufficient Multidisciplinary Collaboration

Participants emphasized that effective assessment requires collaboration between psychologists, psychiatrists, speech therapists, and educators. However, such multidisciplinary coordination remains limited in some centers.

Material and Organizational Constraints

Professionals also referred to:

- shortage of specialized resources;
- insufficient assessment materials;
- high number of children requiring services;
- limited institutional support.

These difficulties may negatively affect the quality and consistency of assessment procedures.

Therapeutic Follow-up and Intervention

The participants explained that assessment is generally followed by individualized educational and therapeutic programs adapted to the child's needs. These interventions may include:

speech therapy; behavioral support; educational activities; social skills training.

However, participants noted that the effectiveness of follow-up programs is often influenced by:

family involvement; availability of specialized staff; regularity of intervention sessions; institutional resources.

Summary of Findings

Overall, the findings indicate that assessment practices in the studied centers rely mainly on clinical observation and professional experience rather than standardized diagnostic instruments. While professionals demonstrate significant practical involvement with children with ASD, several institutional and methodological limitations continue to affect the assessment process.

Discussion

The present study aimed to explore assessment practices for children with Autism Spectrum Disorder (ASD) in specialized centers in Mila Province, Algeria. The findings reveal that assessment procedures rely mainly on clinical observation, parental interviews, and professional experience, while the use of standardized diagnostic tools remains limited. This aligns with broader global challenges, particularly in low-resource settings, where access to qualified specialists and robust diagnostic instruments is often constrained (Nasir et al., 2025, p. 6). This reliance on subjective methods, rather than objective, standardized assessments, introduces variability in diagnostic accuracy and consistency across different centers and practitioners (Küçükgöz & Özyayın, 2022, p. 1).

These results are consistent with previous studies highlighting the challenges faced by developing countries in implementing standardized ASD assessment procedures. International recommendations emphasize the importance of multidisciplinary and evidence-based assessment methods, particularly through the use of tools such as ADOS-2 and ADI-R. However, the findings of this study suggest that such instruments are not widely available in the investigated centers. This limitation frequently results in prolonged diagnostic pathways and a substantial reliance on anecdotal parental reports, potentially delaying critical early interventions (Battanta et al., 2024, p. 3). Moreover, the absence of regulated pathways for ASD diagnosis and care perpetuates inconsistencies in service provision, emphasizing the need for structured approaches to improve diagnostic reliability and facilitate timely therapeutic engagement (Alotaibi et al., 2021, p. 884).

One of the main issues identified concerns the lack of specialized professional training. Several participants reported difficulties related to limited access to updated training programs and diagnostic resources. This situation may affect the consistency and accuracy of assessment practices and increase reliance on subjective clinical judgment. This finding resonates with observations from other regions where a scarcity of adequately trained professionals hinders the effective application of rigorous diagnostic protocols (Katakis et al., 2023, p. 11).

The study also revealed important institutional challenges, including insufficient multidisciplinary collaboration, shortage of specialized materials, and high demand for services. These constraints appear to influence both the quality of assessment and the implementation of individualized intervention programs. These challenges are compounded in low-resource settings, where the availability of specialists is limited, and existing diagnostic tools may not be culturally validated or accessible, further exacerbating disparities in care (Akrofi et al., 2023, p. 78; Cherewick et al., 2023, p. 3).

Despite these difficulties, professionals demonstrated strong practical involvement in supporting children with ASD. Participants emphasized the importance of direct observation and continuous follow-up in understanding the child's behavior and developmental needs. Family participation was also considered an essential factor in the success of assessment and intervention processes. Nevertheless, the overwhelming evidence from biomedical and clinical research underscores that early support significantly improves developmental outcomes and quality of life for individuals with autism across their lifespan (Hahler & Elsabbagh, 2014, p. 59).

The findings highlight a gap between theoretical recommendations concerning ASD assessment and the practical realities observed in specialized centers. While international literature advocates standardized and multidisciplinary assessment procedures, institutional limitations in the studied context often lead professionals to adopt more flexible and experience-based approaches. This divergence often results in diagnostic delays and an overreliance on subjective clinical judgments rather than objective, psychometrically validated instruments, underscoring systemic vulnerabilities within diagnostic frameworks (Bonfim et al., 2020, p. 6).

Limitations of the Study

This study has several limitations that should be acknowledged.

First, the sample size was relatively small and limited to a specific geographical area, which restricts the generalizability of the findings. Second, the study relied mainly on self-reported professional practices collected through interviews without direct observation of assessment sessions. Third, differences between institutions may influence assessment procedures and were not explored in depth.

Future studies involving larger samples and multiple regions could provide a broader understanding of ASD assessment practices in Algeria.

Recommendations

Based on the findings of this study, several recommendations can be proposed:

strengthen professional training in standardized ASD assessment methods;

improve access to validated diagnostic tools;

encourage multidisciplinary collaboration between psychologists, psychiatrists, speech therapists, and educators;

develop national guidelines for ASD assessment practices;

support continuing education programs for professionals working with children with ASD;

promote further research on autism assessment and intervention practices in Algeria.

Conclusion

Assessment represents a fundamental step in the diagnosis and management of children with Autism Spectrum Disorder. The present study showed that assessment practices in specialized centers in Mila Province rely primarily on clinical observation and professional experience, while the use of standardized diagnostic tools remains limited. This limitation often results in diagnostic delays and an overreliance on subjective clinical judgments rather than objective, psychometrically validated instruments, underscoring systemic vulnerabilities within diagnostic frameworks.

The findings also revealed several institutional and professional challenges affecting the quality of assessment services, including insufficient training, limited resources, and lack of multidisciplinary coordination. Despite these constraints, professionals continue to play an important role in supporting children with ASD and their families. Future research with larger sample sizes and diverse geographical representation is recommended to validate and expand upon these findings, particularly given the specialized nature of the hospital settings in which this study was conducted (Muthiga et al., 2025, p. 9). Further investigation into the diagnostic accuracy and efficiency of different assessment models, such as multidisciplinary team versus solo assessments, is crucial to optimize diagnostic protocols and reduce wait times (Penner et al., 2018, p. 10).

Improving assessment practices requires stronger institutional support, better professional training, and increased access to standardized diagnostic instruments. Such efforts could contribute to earlier identification, more accurate assessment, and improved intervention outcomes for children with ASD in Algeria.

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