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Hanoi Public Awareness and Understanding of Autism Spectrum Disorder in Children

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ABSTRACT: Autism Spectrum Disorder (ASD) is a complex neurodevelopmental disorder affecting a child's social communication, interaction, and behavior. In modern society, the prevalence of ASD in children is increasingly rising, making it a significant mental health concern. Given the urgent need for early detection and intervention for children with ASD, especially in urban areas like Hanoi, this study aims to describe the level of understanding, attitudes, and factors influencing Hanoi residents' awareness of ASD. Results from a sociological survey of 256 valid questionnaires indicate that Hanoi residents have a relatively positive level of awareness, particularly regarding basic signs and the importance of early intervention. However, the ability to distinguish ASD from other developmental disorders remains limited; family and friends have minimal impact on awareness, while media and the community play prominent roles. The study proposes enhancing standardized communication, training teachers and parents, and implementing community support programs to raise awareness and reduce stigma.

KEYWORDS: Awareness, Hanoi, Autism Spectrum Disorder (ASD), children

1. INTRODUCTION

Autism Spectrum Disorder (ASD) is a complex neurodevelopmental disorder characterized by difficulties in social communication, social interaction, and repetitive patterns of behavior, interests, or activities (American Psychiatric Association, 2013). It is a lifelong developmental disability affecting brain function and a child's overall development. Autism can occur in any individual, regardless of gender, race, or socioeconomic status (Nguyen, T.H.T & Chan, Q.H, 2025).

The World Health Organization (WHO, 2023) estimates that approximately 1 in 100 children globally is diagnosed with ASD, making it one of the most significant mental health concerns over the past two decades. International epidemiological studies show ASD prevalence ranges from 0.4% to 1% of the child population (Salari et al., 2022). In Vietnam, although national statistics are limited, regional studies have noted a significant increasing trend in ASD rates among children, with the highest rates recorded in children (Van, M.H., et al., 2019). Specifically in Hanoi, the need for early detection, diagnosis, and support for inclusion of children with ASD is becoming increasingly urgent due to the rising number of detected cases and growing demands from families, schools, and society (Vu, S.H, et al, 2014).

In this context, community awareness plays a key role. According to the Social Cognitive Theory framework (Bandura, 1986) and the Theory of Planned Behavior (Fishbein & Ajzen, 1975), community understanding and attitudes directly influence social behavior, including the capacity for early detection, stigma reduction, and promotion of inclusion for children with ASD. Conversely, prejudice or misconceptions can lead to delayed diagnosis, limited access to intervention services, and increased economic and psychological burdens for families (Nguyen, T. M. L., et al., 2013). This becomes even more critical as media and social networks increasingly become primary information sources for most urban residents.

Although some studies on ASD exist in Vietnam, most focus on clinical or medical intervention aspects, while systematic research on community awareness remains limited. On the other hand, among solutions, early intervention is identified as the most crucial (Nguyen, T.H.G, 2024). This gap highlights the urgent need for scientific evidence to comprehensively assess public awareness levels, thereby supporting the design of communication strategies, community education, and policy planning.

Based on this context, this study was conducted with three main objectives: (1) Systematize the theoretical basis of community awareness regarding ASD in children; (2) Describe and evaluate the level of awareness about ASD among Hanoi residents; and (3) Propose recommendations to enhance public awareness of ASD in children. The study's results are expected to provide important practical evidence for planning inclusive education policies, health communication, and child mental health care in Vietnam.

2. THEORETICAL BACKGROUND

2.1. Autism Spectrum Disorder in Children

(1) Concept

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder with an early onset in the first years of life and persisting throughout development (American Psychiatric Association, 2013). These are early-onset disorders in children, characterized by delays and deviations in social development, communication, and other skills. The World Health Organization (World Health Organization, 2023) defines ASD as a complex developmental condition, typically recognized within the first 5 years of life, with diverse manifestations. Global prevalence is estimated at about 1% of the population, equivalent to over 70 million people, with evidence of increase in many countries (Zeidan, J., et al., 2022). Clinical features of ASD are highly heterogeneous: some children have normal intelligence and language, while others have severe developmental delays; co-occurring disorders such as Attention-Deficit/Hyperactivity Disorder (ADHD), epilepsy, or anxiety are also common.

In Vietnam, the term "autism spectrum disorder" has been officially used by the Ministry of Health in guidelines for child mental health care, emphasizing the importance of early detection and multidisciplinary intervention (Hoang et al., 2019). Some epidemiological studies in Northern Vietnam show ASD prevalence ranging from 0.4% to 0.75% in young children, with an increasing trend (Nguyen Thi Hoai Thuong & Tran Quoc Hung, 2025). Field reports also indicate that many parents face difficulties accessing diagnosis and early intervention, partly due to limited community awareness and healthcare service capacity (Vu, S.H, et al, 2014).

From these perspectives, autism spectrum disorder can be understood as a syndrome of multiple impairments, manifesting as developmental disorders in behavior, cognition, emotion, interests, thoughts, speech, sensory processing, and social relationships; often accompanied by varying degrees of intellectual disability.

(2) Clinical Manifestations and Diagnostic Criteria

Diagnosing autism spectrum disorder in children is a complex assessment process integrating information, requiring doctors and diagnosticians to have in-depth knowledge in pediatric development and experience working with children with ASD (Ministry of Health, 2022).

Currently, two diagnostic criteria sets are used worldwide: from the American Psychiatric Association (APA, 2013) and the World Health Organization (WHO):

- The 5th edition published in 2013 of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) by the American Psychiatric Association introduced changes in terminology and the number of diagnostic criteria for ASD compared to DSM-IV. DSM-5 requires professionals to specify the severity of symptoms in two core domains. Diagnosticians also need to assess other associated difficulties if present.
- The International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10) by WHO, published in 1992, defines diagnostic criteria similar to DSM-IV and uses the term Childhood Autism.
- Currently, the Vietnamese healthcare system uses ICD-10 codes for health insurance reimbursement and disease management/statistics. Accordingly, ASD per DSM-5 corresponds to code F84.0 (Childhood autism) and code F84.5 (Asperger's syndrome). The 11th revision (ICD-11), adopted in 2019, has updates similar to DSM-5, both in arranging diagnostic criteria and terminology. According to the Ministry of Health (2022), diagnostic criteria for ASD per DSM-5 include:

(i) Persistent deficits in social communication and social interaction across multiple contexts, manifesting in all three of the following areas, currently or by history (examples are illustrative, not exhaustive): Deficits in social-emotional reciprocity; Deficits in nonverbal communicative behaviors used for social interaction; Deficits in developing, maintaining, and understanding relationships.

(ii) Restricted, repetitive patterns of behavior, interests, or activities, manifested by at least two of the following, currently or by history: Stereotyped or repetitive motor movements, use of objects, or speech; Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior; Highly restricted, fixated interests that are abnormal in intensity or focus; Hyper- or hyporeactivity to sensory input or unusual interest in sensory aspects of the environment.

(iii) Symptoms must be present in the early developmental period (but may not become fully manifest until social demands exceed limited capacities, or may be masked by learned strategies in later life).

(iv) Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.

(v) ASD and Intellectual Disability often co-occur. To make a comorbid diagnosis of ASD and intellectual disability, social communication should be below that expected for general developmental level.

Scientific evidence indicates ASD has a complex biological etiology, combining genetic and environmental factors (Geschwind, D. H., & State, M. W., 2015). Although no specific preventive measures exist, research shows early detection and timely intervention can improve language, social, and behavioral skills (Dawson, G., et al., 2010). Diagnostic results are expressed using the Childhood Autism Rating Scale (CARS):

- 15 to 30 points: Not autistic.

- 30.5 to 36.5 points: Mild to moderate autism.
- 37 to 60 points: Severe autism.

(3) Children and Research Scope

Children with ASD need early detection before age 3, ideally from 18 to 24 months (Nguyen, T.H.G, 2024). Given the clinical symptoms and diagnosis above, children need specialist examination to receive timely early intervention services, helping them have opportunities for social integration.

Legally, the Children's Law (National Assembly, 2016) defines a child as a citizen under 16 years old. However, many studies in health and education use the 12-year mark to distinguish young children from adolescents, aligning with the school system. Therefore, to ensure a scientific basis and facilitate community surveys in Hanoi, children in this study are defined as being between 18 months and 12 years old.

Stage 18–24 months: Many early signs of ASD become clear (lack of eye contact, no response to name, repetitive behaviors). Health organizations, including the CDC, recommend developmental screening at this age (CDC, 2025).

Stage 3–5 years (preschool): Children with ASD face many difficulties integrating into classrooms and group communication. This is when parental and teacher awareness strongly influences social attitudes.

Stage 6–12 years (primary school): Many late-detected cases, when academic and social demands become more complex. Attitudes of teachers, peers, and the community play a decisive role in integration and academic outcomes (Vu, S.H, 2014).

2.2. Community Awareness of ASD in Children

Concept of Community Awareness.

In sociological and psychological research, "community awareness" is understood as the process of forming knowledge, beliefs, attitudes, and behaviors of a social group towards a specific phenomenon (Bandura, 1986). This concept not only reflects the level of information understanding but also includes how the community interprets, evaluates, and responds collectively to social issues. According to McMillan & Chavis (1986), community awareness is also linked to a sense of cohesion, shared values, and mutual support responsibility.

According to the Knowledge–Attitude–Behavior framework (Fishbein & Ajzen, 1975), awareness comprises three main components:

- Awareness: Hearing or being exposed to information about ASD, but understanding is limited.
- Knowledge: Accurate grasp of symptoms, causes, intervention methods.
- Attitude: Emotions and value orientations, can be positive (understanding, supportive of inclusion) or negative (anxiety, stigma).
- Behavior: Degree of transformation into action, such as accepting inclusion, participating in support, sharing correct information.

For the health field, especially autism spectrum disorder (ASD), community awareness reflects three important aspects:

(i) The community's level of awareness about the characteristics, causes, and needs of children with ASD.

This is the most basic level, shown by individuals having heard or been exposed to information about ASD. Knowledge & Awareness - Autism awareness is a variable measuring an individual's ability to recognize, name, or have accessed information related to autism spectrum disorder.

Table 1. Awareness scale

Code	Survey Statement	Source
KA1	I have heard of autism spectrum disorder in children.	Fishbein & Ajzen (1975) Bandura, (1986).
KA2	I know the common signs of autism (difficulty with social interaction, communication, repetitive behavior).	
KA3	I can distinguish autism from intellectual disability or Attention-Deficit/Hyperactivity Disorder (ADHD).	
KA4	I know children with autism have a diverse spectrum of manifestations (from mild to severe).	
KA5	I know early detection and early intervention yield positive effects.	

Source: Author's proposal

(ii) Level of Understanding (knowledge):

The ability to correctly grasp symptoms, causes, and intervention methods. At this level, individuals can distinguish ASD from other disorders like intellectual disability or ADHD (American Psychiatric Association, 2013). Perceived Characteristics is a factor reflecting awareness of features/manifestations (a key factor shaping in-depth perception). This factor measures the ability to correctly understand the nature of and distinguish autism spectrum disorder in children from other syndromes. This factor is expressed through keywords and images that appear when people think about autism spectrum disorder.

Table 2. Perception scale

Code	Survey Statement	Source
PC1	Children with autism have difficulties in communication and social relationships.	Bandura, (1986). *APA, DSM-5, 2013*
PC2	Children with autism often have repetitive behaviors, narrow interests, and attachment to routines/familiar objects.	
PC3	Children with autism have uneven cognitive profiles; they may be weak in one area but excel in another.	
PC4	Children with autism may be overly sensitive or have reduced responses to sounds, light, tastes.	Baron-Cohen et al. (2009)

Source: Author's proposal

(iii) Attitude

Reflects emotions and value orientations towards ASD, which can be positive (understanding, empathy, supportive of inclusion) or negative (anxiety, stigma). According to the Theory of Planned Behavior model, attitude is an important factor determining intention and behavior (Fishbein & Ajzen, 1975). Attitude towards ASD includes:

Affective Perception – Emotions/attitudes linked to awareness: Linking awareness of autism spectrum disorder with emotions: positive attitude, anxiety, stigma).

Table 3. Affective perception scale

Code	Survey Statement	Source
AP1	I feel sympathetic and want to understand children with autism.	Bandura, (1986). WHO, ICD-11, 2022)
AP2	I feel positive about schools/classes accepting children with autism for inclusion.	
AP3	I feel worried about the increasing trend of autism in children.	

Source: Author's proposal

Perceived Social Influence on Awareness: Assesses the impact of the surrounding environment (friends, family, media) on the awareness formation process.

Table 3. Scale of social influence factors on awareness

Code	Survey Statement	Source
SI1	Family influences how I view autism.	Bandura, (1986).
SI2	Friends/colleagues influence my awareness of autism.	
SI3	Social media/media strongly impact my understanding of autism.	
SI4	I see the community encouraging inclusion and supporting children with autism.	

Source: Author's proposal

3. RESEARCH METHODOLOGY

To explore Hanoi residents' awareness of autism spectrum disorder in children, the research team used two main methods.

- Desk research, through collecting and synthesizing academic documents, health reports, and previous studies on ASD, to build the theoretical basis and conceptual framework for measuring awareness (knowledge, attitude, social influence).
- Sociological survey, with an online questionnaire designed on Google Form, the content closely following the theoretical background. After developing the survey, the team conducted a pilot survey with 5 random residents, then adjusted the scales and conducted a wide survey.

The survey questionnaire was sent to Hanoi residents via social media channels (Facebook, Zalo, email) using a combination of convenience sampling and "snowball" sampling (referring the next participant from current participants). In total, the research team collected 256 valid responses. Observed variables were measured using a 5-point Likert scale:

1. Strongly Disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly Agree

- **Data processing method**: Collected data were entered and processed using Excel software. Results are presented via tables and charts to illustrate evaluations and analyses. The study used a 5-point Likert scale; when evaluating the influence level of factors, the mean value of the scales was calculated; determining which response range the mean score falls into and viewing the influence level of each factor based on the achieved mean value.

Interval value = (Maximum - Minimum) / n = (5-1)/5 = 0.8

Evaluation thresholds based on mean score:

1. 1.00 - 1.80: Strongly Disagree
2. 1.81 - 2.60: Disagree
3. 2.61 - 3.40: Neutral
4. 3.41 - 4.20: Agree
5. 4.21 - 5.00: Strongly Agree

4. RESEARCH FINDINGS

4.1. Descriptive data about the samples

Among 256 participants, 104 individuals (40.6%) were students, while 143 participants (55.9%) were employed. Only 9 participants (3.5%) were retired. The age distribution of the participants is as follows:

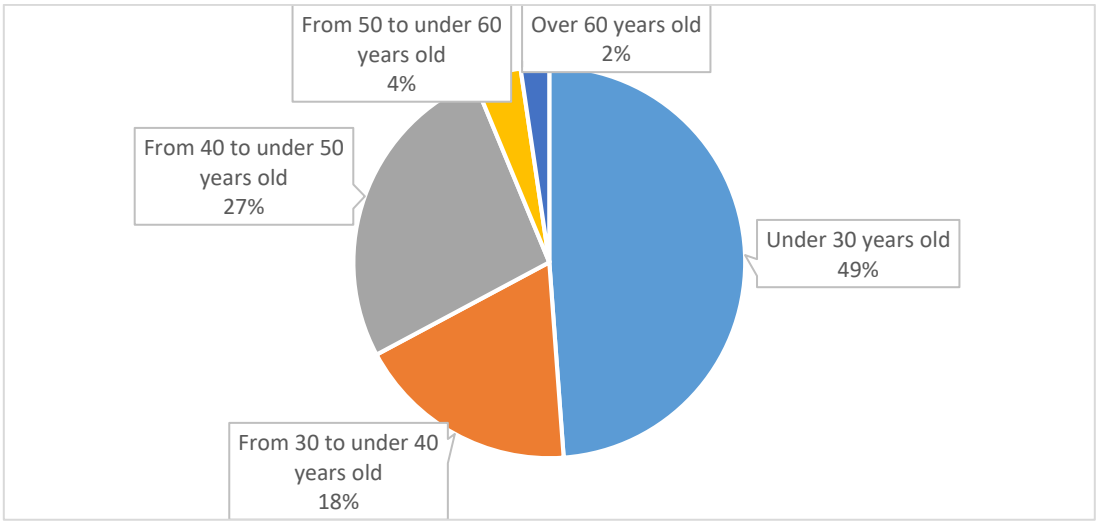

Figure 1. Age of survey participants
Source: Survey result

Among the 256 survey participants, the group under 30 years old accounted for the largest proportion, representing 49% (nearly half of the total). This was followed by the 40–49 age group, with 68 participants (27%). The 30–39 age group comprised 18%, while the remaining groups (50–59 and 60 and above) represented smaller proportions, at 4% and 2%, respectively.

In terms of gender, out of 256 respondents, 64 were male (25%), 181 were female (70.7%), and 11 participants (4.3%) preferred not to reveal their gender.

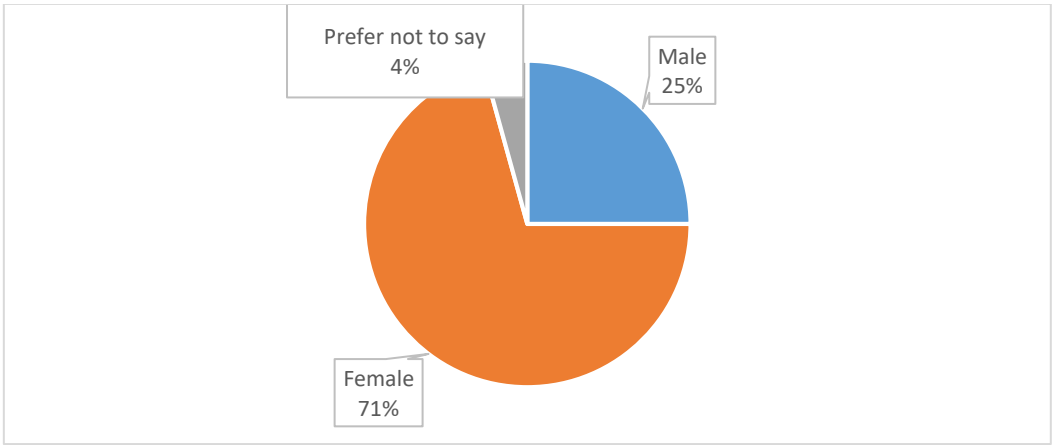

Figure 2. Gender of survey participants
Source: Survey result

4.2. Survey results

(1) Knowledge and Awareness of Autism Spectrum Disorder (ASD)

Knowledge and awareness of ASD constitutes the first and fundamental factor of the community cognition model (Fishbein & Ajzen, 1975; Bandura, 1986). The survey result illustrates that the mean scores of observed variables in this category ranged from 3.25 to nearly 4.0 on a 5-point Likert scale, reflecting a general tendency toward "Agreement" among the majority of participants. This suggests that Hanoi's residents have a certain level of exposure to information about ASD, although the depth of understanding is not balance different in aspects. Simultaneously, the level of awareness appears relatively positive (KA1, KA2, KA4, KA5), yet remains limited in terms of distinguishing ASD from other developmental disorders (KA3).

Table 5. The mean scores of "Knowledge & Awareness" Variables

Code	Statement	Mean	Perception
KA1	Have heard about ASD	4,047	Agree
KA2	Know about common symptoms	3,695	Agree
KA3	Able to distinguish ASD and developmental delay/ADHD	3,254	Neutral
KA4	Awareness of the diverse spectrum of manifestations	3,758	Agree
KA5	Awareness that early detection & intervention are effective	3,793	Agree

Source: Survey result

Among the indicators, KA2 (awareness of common symptoms) and KA5 (understanding the importance of early detection and intervention) achieved the highest mean scores. This reflects the influence of health communication and mass media in disseminating information about ASD within the community. International studies have similarly emphasized the critical role of media in enhancing public knowledge of autism (WHO, 2023).

In contrast, KA3 (ability to distinguish ASD from intellectual disability or ADHD) recorded the lowest mean score (3.254, Neutral). This highlights a gap in specialized knowledge within the community, consistent with Vu, S.H. (2014), who noted that many Vietnamese still confuse ASD with other developmental disorders. The finding also aligns with the study by Tran, T.T.H. et al. (2022) in Thai Binh, which reported that 50% of grandparents and nearly 30% of parents were unable to differentiate between various developmental conditions. In the broader Vietnamese context, the differentiation of ASD diagnoses remains challenging even for preschool teachers and primary healthcare staff.

(2) The perceived chacteristics

The "Perceived Characteristics" dimension reflects the extent of public understanding regarding the core features of ASD. Survey results show that all observed variables in this category obtained mean scores above 3.8 (Agree), with PC1 (difficulties in social communication) receiving the highest agreement (4.129). This suggests that the community possesses a relatively accurate awareness of the typical signs of autism, although limitations remain concerning less frequently emphasized aspects such as sensory sensitivity (PC4).

Table 6. Mean Values of the "Perceived Characteristics" Variables

Code	Statement	Mean	Perception
PC1	Children with ASD have difficulties in social communication	**4.129**	Agree
PC2	Repetitive behaviors and restricted interests	3.922	Agree
PC3	Uneven cognitive abilities (strengths and weaknesses vary)	3.918	Agree
PC4	Heightened sensitivity or low responsiveness to sensory stimuli	3.863	Agree

Source: Survey result

An analysis of each variable reveals the participants' perceptions of the different manifestations of autism spectrum disorder, as follows:

PC1 (difficulties in communication and social interaction) received the highest mean score (4.129), confirming that the community accurately recognizes this as a "core" feature of ASD, consistent with the DSM-5 (APA, 2013). This finding aligns with previous studies conducted both in Vietnam and internationally, which have highlighted social communication deficits as the most easily recognized symptom of ASD (Vu, S.H., 2014; WHO, 2023).

PC2 (repetitive behaviors and restricted interests) and PC3 (uneven cognitive abilities) obtained nearly equivalent scores (3.922 and 3.918, respectively). This is a relatively high score, though not outstanding, indicating that while people are aware of this manifestation of ASD, their understanding is not particularly strong. In the study by Tran, T.T.H. et al. (2022) conducted in Thai Binh, only about 56% of respondents were able to identify stereotyped behaviors, a lower proportion compared to recognition of language and communication issues.

PC4 (sensory sensitivity) received the lowest score (3.863), reflecting limited awareness of the "less visible" manifestations of ASD, such as children being overly reactive or in no response to light, sound, or taste. In practice, these features are often overlooked or mistaken for typical childhood behaviors, which may delay detection.

Overall, the community in Hanoi demonstrates a fairly accurate understanding of the core characteristics of ASD, particularly regarding social communication. However, recognition of secondary and more subtle features—such as sensory differences or uneven cognitive abilities—remains insufficient. This highlights the need for strengthened public communication, as well as training for preschool teachers and primary healthcare staff, in order to enhance early detection and intervention.

(3) Affective Perception

The survey findings indicate that the community in Hanoi generally holds positive and empathetic attitudes toward children with ASD, with all observed variables rated at the level of Agreement (>3.9). Among these, AP3 (concern about the increasing prevalence of ASD) and AP1 (empathy and willingness to understand children with ASD) received the highest mean scores (~4.07 each), reflecting a combination of compassion and concern. This suggests that people not only recognize ASD as a social issue requiring support but also perceive the urgency of timely intervention.

Table 7. Mean value of the variable "Affective Perception"

Code	Statement	Mean	Perception
AP1	Empathy and willingness to understand children with ASD	4.066	Agree
AP2	Positive attitude toward school inclusion of children with ASD	3.941	Agree
AP3	Concern about the increasing prevalence of ASD	4.078	Agree

Source: Survey result

According to the survey results, AP1 (Empathy and willingness to understand children with ASD) scored 4.066, reflecting the community's humanitarian attitude and a readiness to support children with ASD in educational settings, provided that appropriate guidance and assistance are available. However, AP3 (concern about the increasing prevalence of ASD) obtained the highest mean score (4.078). This concern is consistent with the Vietnamese context, where the number of children diagnosed with ASD has risen sharply over the past two decades (Nguyen, T.H.T. & Chan, Q.H., 2025).

AP2, which measures positive attitudes toward school inclusion, while still at the level of "Agreement," recorded the lowest mean score (3.941) among the indicators. This indicates that although the majority of the community supports inclusive education, certain reservations and hesitations remain.

Overall, these results reflect a common trend in social attitudes: empathy and willingness to provide support coexist with concern and a degree of hesitation in inclusive settings. This serves as an important basis for recommending community education programs aimed at reducing underlying biases and fostering more inclusive school environments (Bandura, 1986; WHO, 2023).

(4) Perceived Social Influence on Awareness

The survey results indicate that perceived social influence on ASD awareness was at a moderately high level, with mean scores ranging from 3.38 to 3.85. Among these, social media/mass communication (PS3) and community encouragement (PS4) had the strongest influence, whereas family (PS1) and, in particular, friends/colleagues (PS2) exerted weaker effects. This reflects the urban context of Hanoi, where mass media and social networks serve as the primary channels shaping awareness, rather than direct interactions within families or small social groups.

Table 8. Mean Values of the "Perceived Social Influence" Variables

Code	Statement	Mean	Interpretation
PS1	Family influences awareness	3.512	Slightly Agree
PS2	Friends/colleagues influence awareness	3.383	Neutral
PS3	Social media/mass communication	3.730	Agree
PS4	Community encouragement for inclusion	3.852	Agree

Source: Survey result

Among the social influence factors, community encouragement (PS4) received the highest mean score (3.852). This is a positive signal, suggesting a shift in social norms toward recognizing ASD, consistent with Vietnam's recent policy emphasis on "inclusive education." This effect is further reinforced by PS3 (social media and mass communication), highlighting the prominent role of

media in raising awareness. These findings are consistent with international research by Jones, S.C., et al. (2021), which emphasized that online media is a key source of basic ASD knowledge, particularly among younger populations.

The PS1 group (family) scored 3.512, suggesting that while the family is perceived as important, its role in exchanging and sharing knowledge about ASD has not been fully realized. PS2 (friends/colleagues) recorded the lowest score (3.383, Neutral), indicating that ASD has not yet become a frequent topic of discussion in everyday social interactions. These results highlight that, in the context of Hanoi, mass communication and community norms exert the greatest influence on awareness, whereas micro-level impacts from family and peers remain limited. Therefore, awareness-raising interventions should focus simultaneously on leveraging mass media channels while strengthening the roles of families, schools, and peer groups to ensure consistent support (Bandura, 1986; WHO, 2023).

5. RECOMMENDATIONS

The survey findings analyzed in Section 4.2 demonstrate that residents of Hanoi possess a relatively positive level of awareness regarding autism spectrum disorder. Basic knowledge—such as "having heard of ASD" and "recognizing common symptoms"—achieved relatively high mean scores (~3.9), reflecting the initial effectiveness of communication efforts and community-based interventions. Awareness of core features, such as social communication difficulties, also received strong agreement (4.129). At the same time, social attitudes appear empathetic and supportive toward children with ASD (AP1 = 4.066), providing a favorable foundation for promoting inclusive education.

However, several limitations remain evident:

- Specialized knowledge for distinguishing ASD from other developmental disorders is still limited (KA3 = 3.254).
- Recognition of subtle manifestations such as sensory sensitivity is not yet widespread (PC4 = 3.863).
- The influence of family and peers on awareness remains relatively weak (PS1 = 3.512; PS2 = 3.383).

From the survey results, it can be observed that public awareness of autism spectrum disorder (ASD) in Hanoi has reached a relatively positive level, particularly in terms of basic knowledge and empathetic attitudes toward children. However, the limitations in distinguishing ASD from other developmental disorders, the hesitancy toward inclusive education, and the still-unclear role of families in knowledge sharing highlight the urgent need for coordinated solutions. The following recommendations are directed at key stakeholder groups within the awareness and support ecosystem for children with ASD.

(1) Communication strategies. Communication efforts should shift from merely disseminating general information to developing specialized messages that emphasize the distinctions between ASD and other developmental disorders such as intellectual disability or ADHD. Current communication relies heavily on social media and mass media, which are powerful but prone to misinterpretation or the spread of unverified information. Therefore, the Ministry of Health and the Ministry of Education and Training should jointly develop standardized materials validated by experts, while also organizing thematic communication campaigns such as *"Early Detection of ASD"* or *"Inclusive Education is Every Child's Right."* This approach not only strengthens accurate knowledge but also helps reduce social stigma, aligning with WHO (2022) recommendations on public health communication strategies.

(2) Education system. Although the survey shows relatively positive attitudes toward including children with ASD in mainstream classrooms, the level of agreement is not particularly high. This reflects concerns about teachers' capacity, the readiness of school facilities, and implicit biases among parents. Consequently, policy should prioritize integrating ASD identification and support skills into teacher training programs at the preschool, primary, and secondary levels. At the same time, it is necessary to establish on-site support mechanisms for schools, such as school counseling teams or special education professionals. Models such as "inclusive teaching assistants" or "support teachers" in classrooms can help reduce the burden on homeroom teachers while creating more favorable conditions for children with ASD to participate effectively.

(3) Family. The findings indicate that the role of families in shaping awareness of ASD remains limited, even though they are the core actors in early detection, intervention, and integration. This situation reflects two underlying issues: first, the lack of official channels through which parents can access reliable information; and second, the presence of "self-stigma," a condition in which parents feel ashamed, conceal their child's diagnosis, or avoid discussing ASD (Vu, S.H., 2014). To address this, it is essential to develop parental training programs in both in-person and online formats, equipping parents with the skills to differentiate ASD from other disorders, recognize less common characteristics such as sensory sensitivities, and apply strategies to support children in daily life. The "Parent Training Program" model has been shown to be effective in many countries (Bearss, K., et al., 2015), enabling parents to serve as "co-therapists" for their children. In addition, small-scale parent support groups play an important role in reducing isolation and enhancing experience-sharing. Participation in such groups allows parents to be heard, share their stories, and learn from one another, thereby gradually dismantling feelings of self-blame and internalized stigma. Research by McCabe (2007) in China demonstrated that community-based support groups plays a decisive role in transforming parental attitudes and behaviors toward children with ASD. In addition to parents, it is essential to mobilize the involvement of the extended family—including grandparents and siblings—in accompanying children with ASD. In the Vietnamese context, many children are cared for primarily

by grandparents; therefore, training and communication should not be limited to parents but extended to older generations. This approach helps create a holistic, consistent family environment, reducing discontinuities in child support.

(4) Community and Society. The study findings indicate that encouragement from the community exerts a stronger influence on awareness than that from friends or colleagues. When the community demonstrates acceptance and support, parents and families of children with ASD gain greater confidence in allowing their children to participate in social activities. Thus, it is crucial to establish community-friendly models, such as "autism stigma-free societies," where cultural events, sports activities, or inclusive education festivals are organized to promote interaction. Community communication should shift from pity-based narratives to empowerment messages, highlighting the strengths and abilities of children with ASD rather than focusing solely on deficits. This strategy has been adopted in many countries to reshape social norms toward inclusivity and diversity. On a broader scale, raising community awareness of ASD should be recognized as a key health and education indicator, to be measured on a regular basis. Rather than relying solely on the number of diagnosed children or intervention centers, periodic sociological surveys should be conducted to evaluate changes in public awareness, attitudes, and behaviors. This will serve as an important scientific basis for policymakers to adjust orientations, allocate resources, and evaluate the effectiveness of ASD-related communication programs. The establishment and maintenance of a national database on ASD, including indicators of public awareness, not only facilitates the monitoring of changes in social attitudes and knowledge but also provides a foundation for the Government to introduce more timely, appropriate, and effective interventions.

6. CONCLUSION

This study provides a systematic overview of public awareness of Autism Spectrum Disorder (ASD) in Hanoi. Findings indicate that residents demonstrate a relatively positive level of awareness, particularly in fundamental aspects such as having heard of ASD, recognizing difficulties in social communication, and agreeing on the importance of early detection and intervention. Overall, community attitudes appear to be sympathetic, open, and supportive, though accompanied by concerns regarding the increasing prevalence of diagnosed cases.

Nevertheless, challenges remain. The public still encounters difficulties in distinguishing ASD from other developmental disorders, and knowledge about subtle features—such as sensory sensitivities—remains limited. Moreover, results on perceived social influences highlight that mass media and the wider community play the most significant roles in shaping awareness, whereas the contributions of families and peer groups are comparatively weak. This suggests that community awareness is currently driven primarily by public communication channels, while direct exchange and support within smaller social units have yet to be fully mobilized.

It should also be noted that this study's measurement framework focused primarily on knowledge, attitudes, and selected influencing factors, without fully capturing other dimensions of social perception such as behavioral practices or direct experiences with children with ASD. Future research should address these gaps in order to provide a more comprehensive understanding of ASD awareness and its implications for inclusive policy-making. Therefore, future research could focus on integrating behavioral indicators, such as the level of participation in activities supporting children with ASD or the experiences of community members when directly interacting with children on the autism spectrum.

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