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## Auditory processing disorder: an online survey of hearing healthcare professionals' knowledge and practices

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### ABSTRACT

**Objective:** To investigate (1) the current level of awareness and knowledge on Auditory Processing Disorder (APD) among Audiologists and other hearing healthcare professionals; (2) current practices in screening, diagnosis, and management of APD in children and adults across the UK; (3) professional's acceptance of APD assessment and diagnosis.

**Design:** An online survey was disseminated through the British Academy of Audiology and ENT UK.

**Study sample:** A total of 191 hearing healthcare professionals responded to the survey.

**Results:** Overall, while 63% of the respondents considered themselves to be adequately informed about APD, only 4% viewed themselves as very informed on the topic. Fewer than half of the respondents report screening (31%), diagnosing (14%), or managing (36%) cases of APD. For screening APD, professionals most commonly use auditory processing tests in adults and take case histories in children, whereas routine audiological procedures are the primary method for diagnosing APD in both adults and children. Although modifying the listening environment is a widely recommended management strategy for APD, half of the respondents indicated that a diagnosis of APD has no implications for patient management.

**Conclusions:** There is a critical need to promote APD-related training to ensure they can provide appropriate referrals and management.

### ARTICLE HISTORY

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### KEYWORDS



Auditory processing disorder; professional survey; questionnaire-based survey; APD awareness


### Introduction

Auditory Processing Disorder (APD) refers to the clinical presentation of listening difficulties in children and adults with normal pure-tone thresholds but abnormal scores in complex psycho-acoustic tests. It is characterised by poor speech and non-speech sound perception due to impaired neural function within the afferent and efferent pathways of the central auditory nervous system (CANS) (ASHA, 2005b). It is classified as an independent diagnostic entity in the current 11th and 10th versions of the International Classification of Diseases (ICD) (under H93.25 in ICD 10; AB-5Y in ICD 11b) and recognised as a clinical entity that reduces hearing capacity in the recent hearing report from the World Health Organisation (WHO, 2021). APD significantly impairs affected individuals across their life span. Children with APD have poorer communication, cognition, language, reading, and performance skills compared to their typically developing peers (de Wit et al., 2016). They also experience higher levels of stress to everyday stressors (Eschenbeck et al., 2017), sleep disturbance (Ahmmed, 2020) and psychosocial difficulties (Kreisman et al., 2012). Adults with APD face communication and psychological challenges similar to those experienced by individuals with hearing loss. This includes reliance on maladaptive communication strategies, poor social skills, and reduced self-esteem (Obuchi et al., 2017; Heine and Slone, 2019), along

with a greater likelihood of late-onset depression later in life (Lozupone et al., 2021). Such challenges can adversely impact their mental well-being and daily functioning, leading to decreased work performance and productivity (WHO, 2019).

Recently, a growing number of hearing healthcare professional bodies around the world have recognised the significant impact of APD, emphasising the importance of its diagnosis and management in affected individuals. In 2015, a total of five sets of guidelines for APD were published, with two originating from the USA, two from the UK, and one from Canada (Heine and O'Halloran, 2015). From the early 2000s to the 2010s, research highlighted considerable variability in clinical practices for APD, including disparities in diagnostic criteria and the assessment and management strategies employed by professionals. Wilson and Arnott (2013) identified nine distinct diagnostic criteria for APD derived from the position statements of professional bodies, published papers, and guidelines. This led to significant disparities in diagnosis rates of APD, ranging from 7.3% to 96%. Hind (2006) reported that APD management primarily involved the provision of 'verbal advice', followed by the implementation of management programs and the distribution of written materials. In the USA, Audiologists tend to favour non-therapy-based recommendations, such as prescribing Assistive Listening Devices (ALD) and arranging preferential seating. Since the 2010s, there has been a significant increase in the number of consensus

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statements and guidelines worldwide, as well as the formulation of explicit diagnostic criteria for APD in Europe (Iliadou et al., 2017). In addition to the previous guidelines that have been updated, there are additional guidelines and consensus in Europe as well as separately in Germany, France, Denmark, Belgium, New Zealand, Australia (Iliadou et al., 2017), South Africa (Fouché-Copley et al., 2016) and other countries across the world. Notably, several of these guidelines converge in terms of proposed criteria for APD (Iliadou and Kiese-Himmel, 2017).

In the early 2000s to 2010s, the historically wide range of diagnostic criteria for APD may have contributed to its low recognition and the limited awareness among professionals in the United Kingdom (Hind, 2006; Baldry and Hind, 2008), Ireland (Logue-Kennedy Maria et al., 2011), and the United States (Dobbs et al., 2005; Chermak et al., 2007). Yet, even in the latter part of the 2000s, a majority of Ear, Nose and Throat (ENT) specialists and General Practitioners (GPs) in the UK reported a significant lack of awareness about APD (Baldry and Hind, 2008). Nearly half of these healthcare professionals were unlikely to make referrals for further APD assessment. These findings align with the recently reported experiences of individuals and their families in the UK affected by APD. The majority have reported difficulties in obtaining referrals for assessment, receiving diagnoses, gaining support for management, and facing an overall lack of recognition of APD in healthcare, education, and work sectors (Agrawal et al., 2021).

Guidelines are shaped by translational research, which typically takes about one and a half decades to be incorporated into clinical practice (Morris et al., 2011). Moreover, it has been over 17 years since Heine and O'Halloran (2015) reviewed the initial, widely cited American APD guideline. It is thus of particular interest to explore the current state of awareness of APD and opinions about its diagnosis and management practices in Hearing Healthcare professionals the UK to understand how these approaches may have evolved further, and provide insights into the recognition and incorporation of APD within the hearing healthcare framework.

## Methods

An online survey was conducted from 5 April 2021 to 30 June 2021 using Opinio Tool (UCL survey platform). Approval was obtained from the UCL Research Ethics Committee (Ethics ID no: 5118/001) before the data collection process.

## Materials

The questionnaire was developed based on a review of published APD surveys (Emanuel et al., 2011; Logue-Kennedy Maria et al., 2011). The survey consists of four sections: demographic information, knowledge and awareness of APD, current practices in screening, diagnosis and management of APD, and discussion on professional's acceptance and view on APD. The content validity of the instrument was assessed by experts in the field of APD from Great Ormond Street Hospital (GOSH). The research instrument was piloted by three Audiologists and four ENT doctors on usability, relevance, ease of completion, and the time taken to complete the survey. Based on the pilot findings, minor editing was performed to improve the clarity of the instrument.

## Procedure

The survey was disseminated to all practicing hearing healthcare professionals in the UK through professional bodies. ENT UK shared the survey link to all their email listings and the British Society of Audiology (BAA) advertised the survey on their website and newsletter.

## Data analysis

Raw data stored in Opinio was extracted and transferred to the Statistical Package for Social Scientists (SPSS). Responses to the dichotomous and multiple-choice questions responses were analysed descriptively and presented as frequencies and percentages. Categorical data were statistically analysed using the chi-square test. For open ended questions, we used a qualitative approach as per Braun and Clarke (2006). MB scrutinised the data to generate categories and identify candidate themes that were reviewed by DEB, and finalised and named by DEB and MB. Finalised themes were then scrutinised by NK, discussed with MB and in case of dissent resolved by DEB by consensus.

## Results

A total of 271 individuals accessed the survey portal. Following initial screening, 205 met the eligibility criteria and provided consent, with 191 ultimately completing the full survey. Of those respondents, 24 were from ENT UK and 167 from the BAA. ENT UK has a membership of 2,270, and BAA has 1,465 members. This yields estimated response rates of 1.06% for ENT UK and 11.40% for BAA, under the assumption that all members were given the recruitment materials.

The survey responses included 152 Audiologists and 39 professionals from other categories, including 23 ENT doctors, one Audiovestibular Medicine doctor, five Clinical Scientists in Audiology, six Hearing Therapists, three Hearing Aid Dispensers, and one Audiology Nurse. Due to the wide range of response numbers among these varied professional groups, they were grouped under the category 'Others'. The analysis focused primarily on the survey results from the Audiologists ( $n = 152$ ) and the 'Others' group ( $n = 39$ ).

## Demographic information

The majority of the respondents live in London. Figure 1 depicts the distribution of respondents by geographical location on the UK's map. Most of the respondents work in a hospital (82%), followed by private practice (10%), and community-based clinics (8%). The highest number of respondents have worked for more than a decade and possess at least a master's degree (Table 1).

## Knowledge of APD

Figure 2 provides an overview of the respondents' self-perceived levels of knowledge about APD, comparing Audiologists with other professionals. Notably, 35% of Audiologists and 37% of the 'Others' group consider themselves 'adequately informed' regarding APD. Only a small fraction of Audiologists, 4%, considered themselves 'very informed', while another 5% acknowledged having minimal knowledge. Additionally, 15% of professionals from the 'Others' group reported being 'hardly at all' informed about APD.

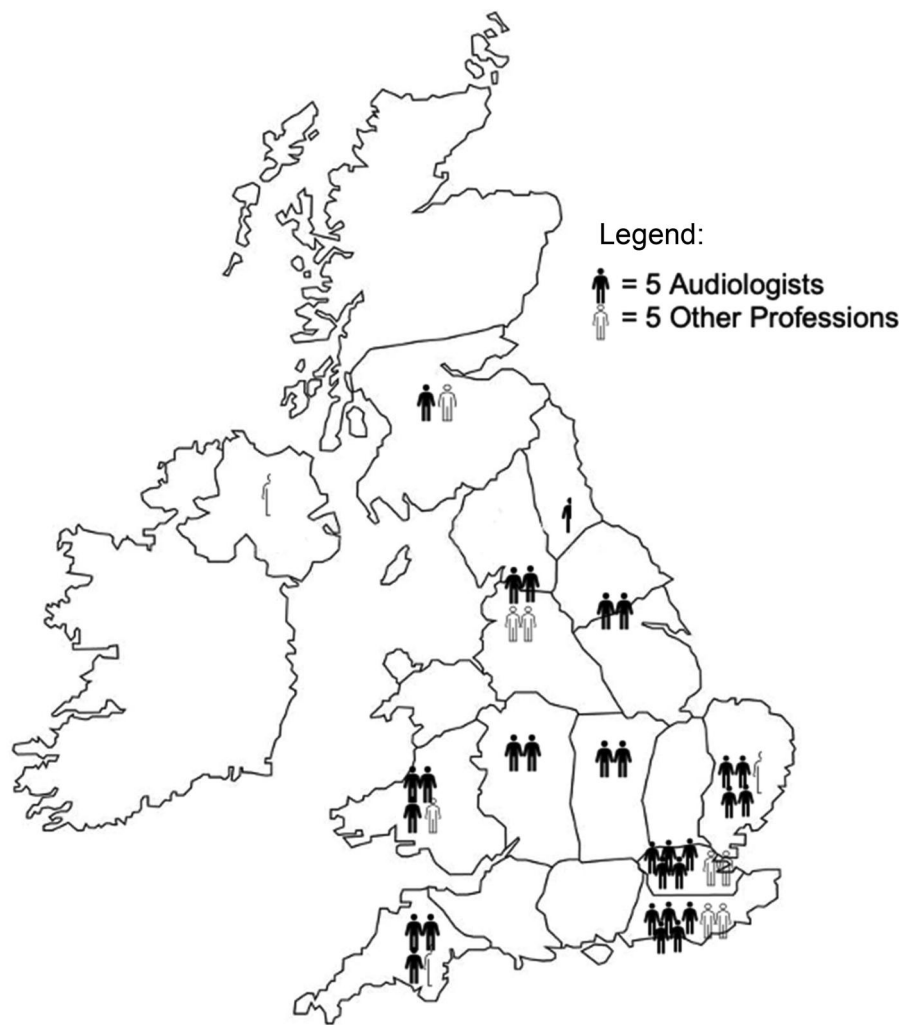


Figure 1. Distribution of respondents by geographical location on a UK map.

Table 1. Overview of each profession based on their educational level and the number of years practiced.

Profession Highest Level of Education		Number of years practiced			Total
		<6 years	6-10 years	>10 years	
Audiologist	Graduate	7 (10%)	18 (26%)	44 (64%)	69
	Postgraduate	10 (11%)	14 (16%)	64 (73%)	88
Others	Graduate	0	0	10 (100%)	10
	Postgraduate	2 (8%)	4 (17%)	18 (75%)	24

A chi-square test revealed no significant difference in self-reported level of knowledge and skills in clinicians with and without postgraduate degrees at master's level and above ( $X^2(1, N=176) = .023; p = .878$ ).

A chi-square test showed a significant correlation between number of years of practice and the level of knowledge about APD ( $X^2(2, N=182) = 16.003; p < .01$ ).

Most Audiologists (67%) and almost half of 'Others' (48%) were aware of APD services in the UK. In terms of the source of information, 44% of respondents mentioned Great Ormond Street Hospital, followed by University College London Hospital (40%), and University Southampton Auditory Implant Service (18%).

### Screening, diagnosis and management of APD

#### Knowledge and skills to assess children and adults for APD

Figure 3(a) summarises the self-assessment of participants' knowledge and skills in evaluating children for APD, with the majority (67% of Audiologists and 84% of others) rating themselves as 'adequate' or 'poor'. Similarly, Figure 3(b) shows self-ratings for assessing adults with APD, revealing that a majority (72% of Audiologists and 64% of others) consider their knowledge and skills to fall within the 'adequate' to 'poor' range.

There was no significant difference when comparing Audiologists and other professionals self-reported skills and knowledge to assess APD in either children ( $X^2(1, N=176) = .034, p = .852$ ) or adults ( $X^2(1, N=176) = .321, p = .571$ ).

#### Knowledge and skills to manage children and adults with APD

Figure 4(a) indicates that a substantial portion of the respondents – 37% of Audiologists and 45% of other professionals – consider their abilities to manage children with APD as 'poor'. Regarding their proficiency in managing APD, only 2% of Audiologists considered their skills to be excellent, while none of the other professionals gave themselves this top rating. Figure 4(b) reveals a similar trend in self-assessed competence

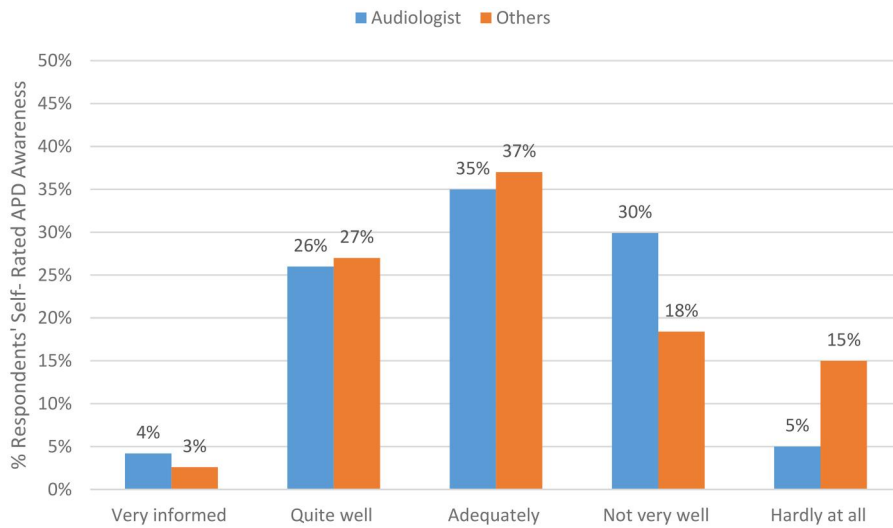


Figure 2. Respondents' self-rating of how well-informed they perceived themselves to be about APD.

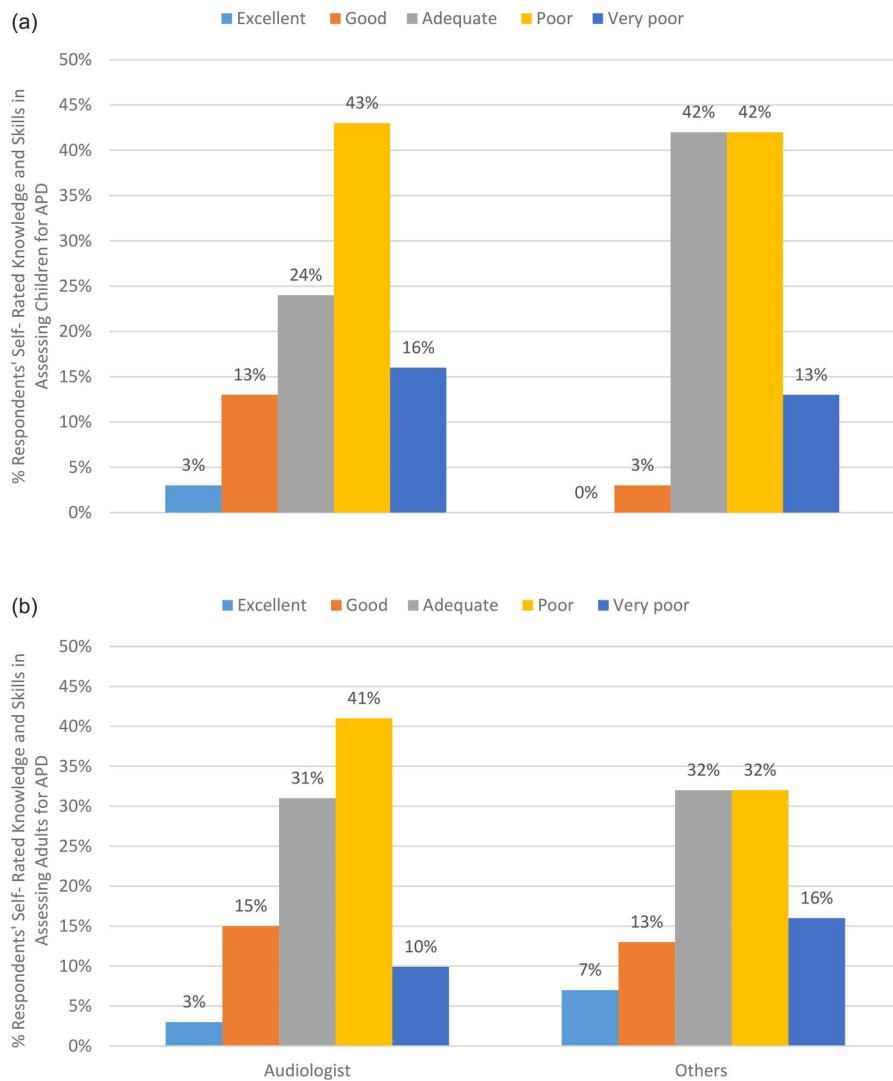
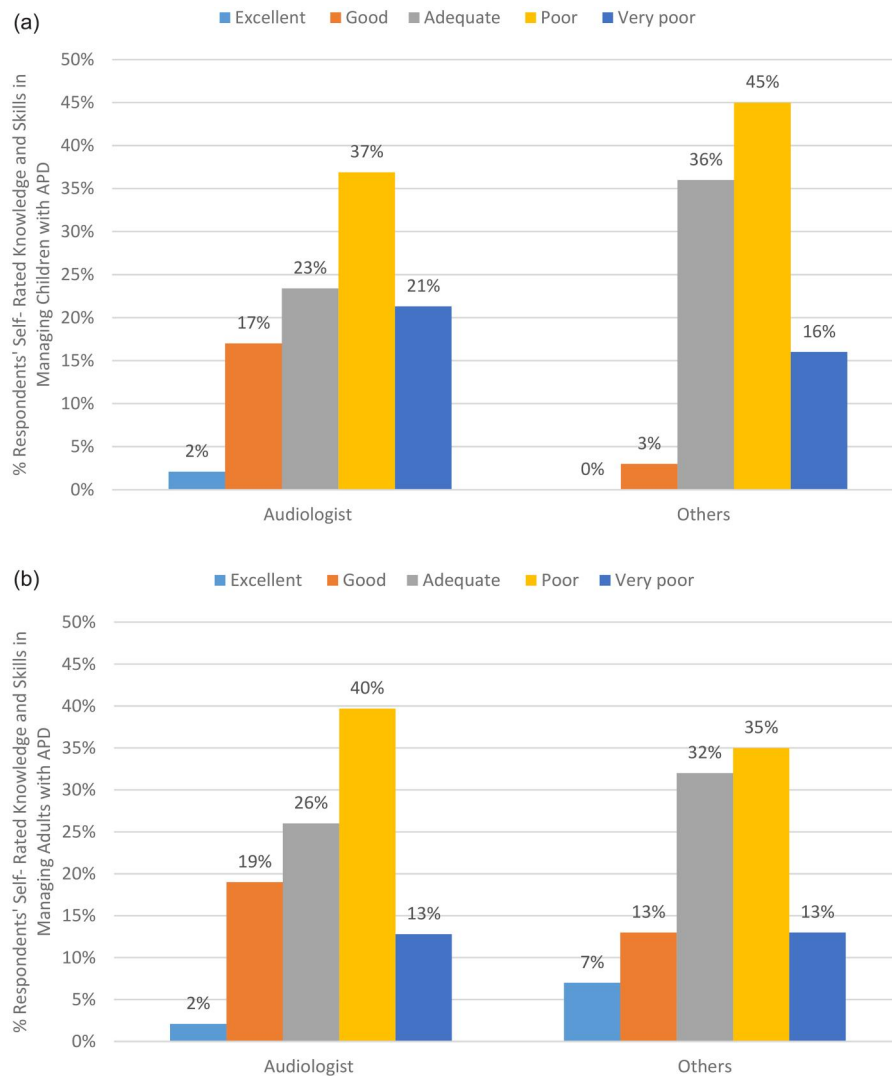


Figure 3. (a) Respondents self-rating of current knowledge and skills in assessing children for APD. (b) Respondents self-rating of current knowledge and skills in assessing adults for APD.



**Figure 4.** (a) Respondents self-rating of current knowledge and skills in managing children with APD are represented in percentages. (b) Respondents self-rating of current knowledge and skills in managing adults with APD.

**Table 2.** Distribution of respondents in percentages who listed their reasons why they did not diagnose APD: Thematic Analysis of Respondent Responses.

Themes explaining why respondents did not diagnose APD (n = 141)	%
Not in the job scope. Suspected APD patients will be referred to other professionals or they have been seen by other professionals	29
Limited knowledge and experience in APD	23
Lack of standards, policies and guidelines to assess and manage APD	20
The current department does not provide APD service/ clinic	13
No access to APD screening tools/ material	6
Screening and diagnosis of APD are not necessary. Just manage the symptoms	4
Cannot distinguish APD from other disability	2
Others	3

managing adults with APD; 40% of Audiologists and 35% of other professionals rated their knowledge and skills as 'poor'. Notably, only 2% of Audiologists considered themselves 'excellent' in this area, whereas 7% of other professionals did so.

### Current practices for APD services in the UK

#### Current practices for screening for APD

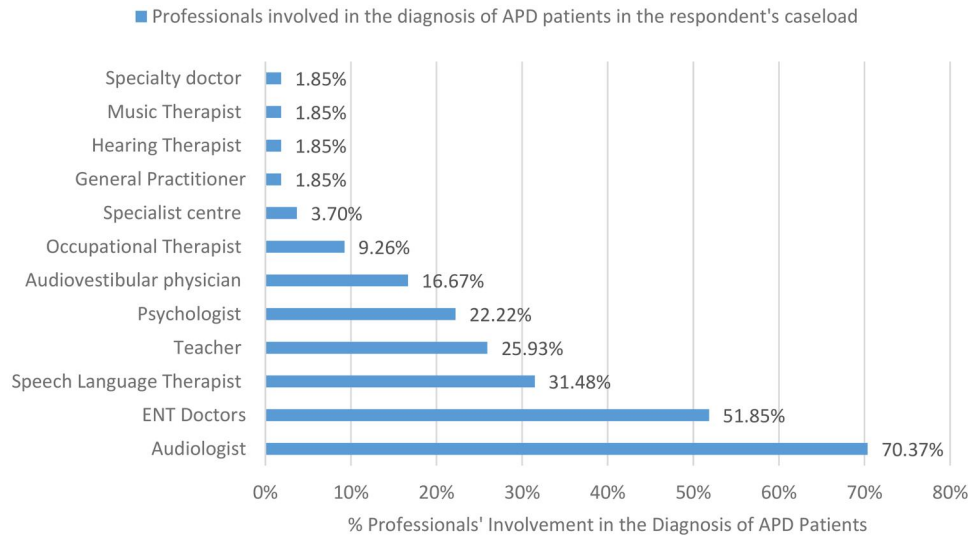
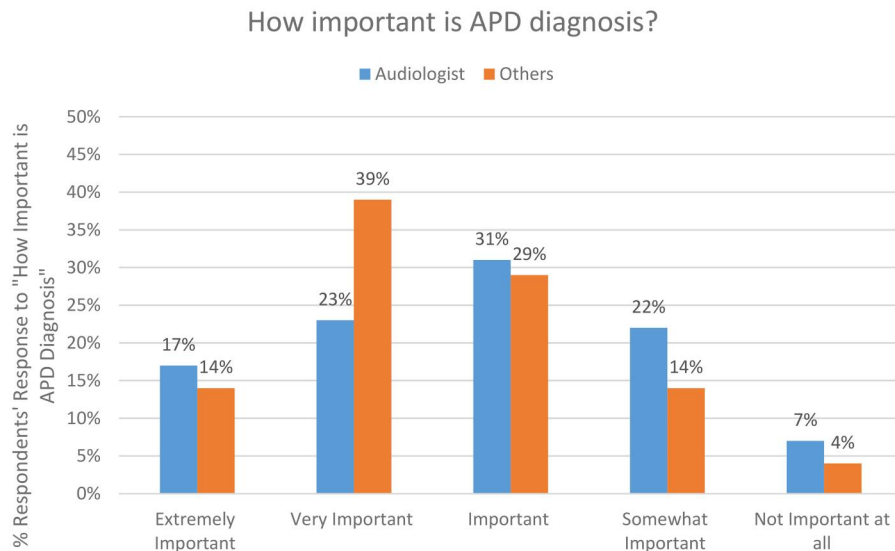
Among the respondents, 69% did not screen for APD, while 31% did, with audiologists making up 89% of the latter group. Those involved in APD screening generally viewed themselves as 'well-

informed', yet only a small fraction (11%) considered themselves 'very informed' about APD. Interestingly, despite providing APD screening services, 16% of respondents rated themselves as 'not very well-informed' about APD, and 2% considered themselves 'hardly informed'. The Chi-square analysis revealed a significant difference in the current awareness levels of APD between respondents engaged in APD screening and those who were not ( $\chi^2(1, N = 176) = 9.591, p < 0.005$ ).

Thematic analysis revealed as primary theme, cited by 47% of respondents, the absence of APD services in their current department. Other themes include limited knowledge of APD (17%), a lack of standards, policies and guidelines (14%), and no access to

**Table 3.** Distribution of respondents in percentages who listed their reasons why they did not provide management for APD: Thematic Analysis of Respondent Responses.

Themes explaining why respondents did not provide management for APD ( $n = 103$ )	%
Not in the job scope. APD patients will be referred to other professionals	27
Limited knowledge and training in APD	24
The current department does not provide APD service/ clinic	13
No formal diagnosis for APD in the UK	12
Limited funding and resources	10
Offer management based on the patient's concerns and symptoms. Not specifically for APD	8
No national protocol or agreed treatment pathway for APD	6

**Figure 5.** Breakdown of professionals involved in APD patients' diagnosis in the respondent's caseload.**Figure 6.** Percentages of responses to the question 'How important is APD diagnosis?' according to professions.

screening tools and materials (7%). Notably, 9% of respondents reported that case history taking and audiological tests was sufficient (eliminating the need for screening tools). Additionally, 6% of respondents argued that APD screening and diagnosis are unnecessary, as managing the symptoms is of greater importance.

The list of screening tools used to screen APD provided by respondents resulted in four themes- AP tests, routine audiological assessment, questionnaires and others. The most common screening tools used in adults were Speech in Noise Test

(QuickSIN) employed by 16 respondents (see Appendix A for a complete list), while case history taking is incorporated by 12 respondents for APD screening in children (see Appendix B for complete list).

#### **Current practices for diagnosis of APD**

Only 14% of the respondents provided an APD diagnosis in their current setting. Most respondents (59%) who provided a diagnosis for APD rated themselves as quite well-informed, whereas 8%

and 21% rated themselves as very informed and adequately informed, respectively. Despite diagnosing APD, 8% and 4% of respondents rated themselves as hardly at all and not very well, respectively. The Chi-square analysis revealed a significant difference in the current awareness level of APD between respondents with and without APD diagnosis ( $X^2(1, N=165) = 6.036; p = .014$ ).

Eighty-six percent of the respondents, consisting of 119 audiologists and 22 other professionals who did not diagnose APD, were asked to provide a reason for not doing so. Thematic analysis led to eight themes as listed in Table 2. The majority of the respondents (29%) reported that diagnosing APD is not within their work responsibilities, with suspected cases typically referred to other professionals. Additionally, factors hindering them from diagnosing APD included limited knowledge and experience (23%) and lack of standards, policies, and guidelines on APD (20%). One respondent expressed concerns that APD diagnosis could be counterproductive, describing it as a potential waste of time, and an active distraction and harmful.

A thematic analysis of the tools used for APD diagnosis revealed four domains applicable to both children and adults: audiological tests, AP tests, questionnaires, and others. Details can be found in Appendix C for adults and Appendix D for children. The most commonly used tool for both adults and children was the audiological assessment. Within the AP tests, the Listening in Spatialised Noise-Sentences test (LiSN-S) emerged as the most frequently used for adults, with five out of 24 respondents utilising AP tests, and for children, with four out of 13 respondents utilising AP tests.

#### Current practices in management for APD

Approximately two-thirds of the respondents (64%) do not manage APD. Table 3 outlines the seven themes derived from the thematic analysis. The primary reasons for not managing APD were identified as the absence of such management within their job scope (27%), limited knowledge and training on APD (24%), and the unavailability of APD services provided by their department (13%).

The majority of the respondent's management strategies for adults with APD included modifying the listening environment including the use of a mini-mic system (31%), compensatory strategies (23%) and auditory training (22%). Specific auditory training programs mentioned were Listening and Communication Enhancement (LACE) (15%) and Sound Success (5%). Additional details on the management for adults with APD can be found in Appendix E.

The pattern of APD management in children was similar to that of adults. However, recommendations for improving children's listening environments were more focused, with 56% suggesting the use of a mini-mic and 41% proposing classroom modifications. A comprehensive list of management strategies provided to children with APD and their families is presented in Appendix F.

#### Caseload for APD

Out of the respondents, 54 reported having APD cases in their caseload, comprising 70% of Audiologist respondents, 52% of ENT Doctors, and 31% of SLTs. A respondent commented, 'Many of these professionals raise APD as a concern but do not diagnose it'. Figure 5 illustrates the diverse professionals involved in the diagnosis of APD patients

#### Professional's acceptance of APD

Figure 6 illustrates the overall responses to the question "How important it is to diagnose APD". Thirty one percent of the Audiologists agreed that APD diagnosis is important. A larger portion of other professionals (39%) believed that diagnosing APD is very important. Only 7% of Audiologists and 4% of other professionals considered APD diagnosis as insignificant. This view is rooted in the belief that APD has minimal impact on management (50%), it is not a single diagnosis due to overlap with other disorders (30%), and there is insufficient strong evidence on APD (20%). Additional details regarding respondents' views on why APD diagnosis is not deemed essential are provided in Appendix G.

#### Discussion

While recognising the significance of APD diagnosis, the majority of respondents did not engage in screening (69%), diagnosing (86%), or managing (64%) APD in their current setting. Compared to the previous survey conducted by Baldry and Hind (2008), there was a reported increase in APD screening services in the UK by 22.4% among all participants and by 3.9% among audiologists specifically.

#### Current level of awareness and knowledge on APD

There has been a modest improvement in professionals' awareness and knowledge of APD. In the current survey, 29% of respondents considered themselves 'not very well informed,' a decrease from the 58% reported in 2006. Additionally, 36% of respondents now consider themselves adequately informed, an increase from the 29% reported in 2006 (Hind, 2006). Only 4% of Audiologists considered themselves very informed, consistent with the <5% reported by Hind (2006). In contrast, the survey conducted by Baldry and Hind in 2008 reported that over 70% of ENT consultants and more than 90% of GP practitioners had a poor or non-existent understanding of APD. In our study, 52% of the respondents from the other professional group were unaware of APD, suggesting that professionals besides Audiologist are more aware of APD (GPs were not included in our study) nowadays. There was no significant difference in APD knowledge between Audiologists and other professions, despite Audiologists being considered as experts in APD diagnosis according to ASHA, (2005a). This may be due to the smaller number of non-Audiologist responders and a possible selection bias (in that non-Audiologist responders may have been more likely to be more knowledgeable in APD).

In this survey, higher education did not correlate with increased knowledge and skills in APD, but work experience did. A similar study from Chermak et al. (1998) reported that, despite 83% of the Audiologists taking at least one graduate course involving an APD module, more than half of them still felt unskilled in providing APD assessment. It should be noted that curricula vary both between and within countries. In the UK, the audiovestibular medicine training curriculum clearly defines the minimum clinical training and theoretical knowledge required (see the Joint College of Physicians Training Board, Audiovestibular Medicine Training Curriculum, Royal College of Physicians, 2021, available at: [<https://www.jrcptb.org.uk/sites/default/files/Audiovestibular%20Medicine%202021%20Curriculum%20FINAL.pdf>], accessed on January 27, 2024). For audiologists, University College London offers an optional MSc



module in Advanced Audiology, which is not available in other comparable UK programs. Moreover, formal professional organisations have not set explicit requirements. This highlights the necessity for a formal consensus and a unified approach in curriculum development that keeps pace with the evolving field of APD diagnosis and management, catering to the various professionals who come across this patient population.

### **Current practices in screening, diagnosis and management of APD**

#### **Screening for APD**

In this study, 31% of respondents conducted APD screenings, a notable increase from the 9.6% reported in Hind (2006). The QuickSIN test (48%), acoustic reflexes (24%), and audiometry (21%) were the most commonly employed tools for screening adults. In line with the BSA (2011) recommendations for using structured case histories and validated questionnaires for initial screening, 32% of professionals preferred to use case history as the method when screening for APD in children. In contrast, Hind (2006) reported the Screening Test for APD in Children (SCAN-C) as the most commonly used tool in paediatric services. In APD care, audiologists are pivotal for diagnosis and rehabilitation strategies, while other healthcare providers may often handle initial screening and general management. Emanuel et al. (2015) highlights the importance of delineating roles across, screening, diagnostic, and intervention phases, suggesting a coordinated, multidisciplinary approach.

In addition to audiological assessments and questionnaires, this survey revealed that QuickSIN, SCAN:3A, SCAN:3C, and LISN-S were among the commonly listed tests for APD screening. These findings align with AAA's (2010) recommendations to expand screening beyond questionnaires to include AP diagnostic tests, although without an explicit test recommendation. Clinicians should consider language impact and score interpretation, since these tests are in American English and normative data may differ (Dawes and Bishop, 2007).

#### **Diagnosis of APD**

Only 14% of respondents reported providing a diagnosis for APD. Although this figure is relatively low, there has been a slight increase compared to Hind's (2006) study, where the diagnosis rate was 11.1%.

Most respondents prefer to refer suspected APD cases to other professionals. Audiology organisations suggested that Audiologists should be highly competent in identifying and working with individuals with APD due to the reliance on psychoacoustic test batteries, which may need complementing with electrophysiological tests (ASHA, 2005b; AAA, 2010; CISG, 2019; Keith et al., 2019). Iliadou et al. (2017) also recommend a multidisciplinary approach to ensure that audiology findings are not solely attributed to higher-level disorders, given the complexity of language, cognition, and auditory processing, where one process can influence another.

The most commonly used diagnostic tools for APD primarily consisted of basic assessments such as audiometry and tympanometry, accompanied by case history in adults. For children, audiometry and tympanometry were frequently used, with the addition of the AP LISN-S test. The most commonly utilised AP tests for adults were QuickSIN and LISN-S at 23%, whereas 9% of respondents used the rest of the tests in children. Furthermore, 33% of respondents used the LISN-S test, while

17% of respondents utilised the DDdT and Pitch Pattern Sequence Test (PPST), and 8% employed the other test batteries. Our study's findings on the prevalent use of the LISN-S test align with the targeted testing strategy of the Australian protocol as detailed by Cameron and Dillon (2007), which advocates for focused interventions upon identifying specific auditory processing deficits.

Despite poor utilisation of the AP test battery, it is encouraging that the tests used for APD diagnosis align with BSA's (2018) recommendations. However, respondents did not consider electrophysiological testing, such as Middle Latency Response (MLR), P300, and Mismatch Negativity, although some listed ABR for APD diagnosis. This aligns with AAA's (2010) recommendation that AEP should primarily be used for assessing APD in young children who cannot undergo behavioural test batteries.

#### **Management of APD**

In this study, only 36% of respondents reported providing management for APD in their current settings, indicating a need for increased efforts in improving the provision of APD management by professionals in the UK. Respondents who did not offer APD management refer APD patients to other professionals. Previous surveys have also highlighted referrals to SLT for further APD management (Chermak et al., 1998, 2007; Emanuel et al., 2011), which concurs with international guidelines emphasising SLT's valuable perspectives on communication, language abilities, and cognitive-communication aspects (AAA, 2010; Keith et al., 2019). In contrast to previous studies (Emanuel et al., 2011), most of the surveyed Audiologists are willing to manage APD consistent with BSA's (2018) recommendations.

The three primary methods of APD management reported were modifying listening environments (mainly through the use of mini-mic systems), compensatory strategies (involving listening, hearing and communication strategies), and auditory training using various applications and techniques such as LACE and audiobooks. This contrast with Hind's survey, where verbal advice was the primary form of management. The shift observed in this study indicates an improvement in APD management practices, emphasising a broader range of auditory training approaches and applications designed to assist APD patients beyond verbal advice recommendations.

#### **Non-acceptance of APD**

Despite an increase in professionals' awareness of APD over the past decade, this survey highlights that a relatively low percentage of professionals, particularly Audiologists, engage in the screening, diagnosis and management of APD.

Respondents commonly reported that APD-related work is not within their job scope. Reasons for not providing APD services include the lack of established gold standards, policies and recommended guidelines for APD. Limited knowledge and experiences with APD were also cited as hindrances. In view of existing BSA (BSA, 2018) and other guidelines, this may be due to the long time lag it takes for research knowledge to translate to clinical practice (Morris et al., 2011). These findings highlight the need to include APD in the different professionals' curricula and learning events.

A small percentage of respondents expressed the belief that diagnosing APD is not crucial. Nearly half of the respondents argued that addressing symptoms and concerns is more important and can be accomplished without a formal APD diagnosis.

This contrasts with affected individuals and families expressing dissatisfaction in their majority regarding lack of awareness, diagnosis and management of APD and related support and funding or with delays in APD diagnosis and management in schools and workplaces in the UK (Agrawal et al., 2021).

In conclusion, this study highlights an urgent need to enhance professional awareness of APD and to integrate formal APD training into professional curricula. This is crucial given the significant and wide-ranging impact of this condition on various functions, and to ensure that individuals affected by APD receive the appropriate support.

## Conclusion

This survey highlights a significant gap in Audiologist's active involvement with APD, despite the majority acknowledging the importance of APD diagnosis. The primary reasons for this may include a lack of skills and knowledge. Continuous education opportunities are deemed essential to make them aware of the detrimental impact of the condition, address the gap in knowledge and promote professional's involvement in the APD field.

Professionals should be made aware of the availability of APD centres and the comprehensive range of management and support services available for APD patients. This awareness is particularly critical for early detection, in view of the impact of the disorder and full evaluation or further referral for assessment as needed for affected individuals to receive appropriate crucial management.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

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