

Unmet Needs and Service Priorities for ADHD in Australia: AI-Assisted Analysis of Senate Inquiry Submissions

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Unmet Needs and Service Priorities for ADHD in Australia: AI-Assisted Analysis of Senate Inquiry Submissions

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Abstract

Background: Attention-deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder defined by impaired levels of inattention, organisation, and/or hyperactivity-impulsivity. Although previously considered a disorder of childhood, it is increasingly recognised that it can persist into adult life or be newly diagnosed in adulthood. Untreated ADHD has been associated with poorer outcomes across a range of diverse health and social domains, but services have not kept pace with increasing demand. In 2023 the Australian Government launched an inquiry into ADHD services in Australia.

Objective: To analyse written submissions from individuals and families with lived experience of attention-deficit hyperactivity disorder (ADHD) to the 2023 Australian Senate Inquiry, using artificial intelligence (AI)-assisted thematic analysis. The aim was to identify priority concerns, service needs, and community-proposed solutions. Presenting the Senate Inquiry submissions data numerically makes it very accessible to policy makers. This study is important for designing new services and for their subsequent evaluation.

Methods: A mixed-methods study of 505 publicly available submissions from individuals with ADHD and their families, drawn from a total of 701 submissions to the Senate Inquiry into ADHD services. Submissions were analysed using large language model (LLM)-assisted data extraction and thematic clustering, with human validation and review. Main Outcome Measures: Frequency and thematic distribution of (1) problems experienced; (2) services wanted; and (3) solutions suggested, as identified in submissions.

Results: Thematic analysis of 480 eligible submissions revealed the most frequently reported issues were high costs and long wait times for assessment and treatment (each cited by 46%), lack of specialised care (39%), diagnostic delays (36%), and gender bias (27%). The most common service request was for affordable and accessible ADHD-specific care (71%), followed by support services tailored to diverse populations and life stages. Proposed solutions focused on Medicare-funded access to psychological and psychiatric services (68%), expanded roles for general practitioners, improved provider training (39%), and recognition of ADHD under the National Disability Insurance Scheme (NDIS). Submissions also highlighted misalignment between current clinical guidelines and public expectations, particularly regarding school-based screening and NDIS eligibility.

Conclusions: The findings highlight substantial unmet needs and systemic barriers in ADHD diagnosis and care in Australia. The AI-assisted analysis of consumer submissions offers a scalable method for integrating lived experience into policy development. Coordinated reforms in access, funding, and workforce training are needed to align services with both clinical evidence and community expectations. Clinical Trial: Not applicable

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Original Manuscript

Unmet Needs and Service Priorities for ADHD in Australia: AI-Assisted Analysis of Senate Inquiry Submissions

Abstract

Background: Attention-deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder defined by impaired levels of inattention, organisation, and/or hyperactivity-impulsivity. Although previously considered a disorder of childhood, it is increasingly recognised that it can persist into adult life or be newly diagnosed in adulthood. Untreated ADHD has been associated with poorer outcomes across a range of diverse health and social domains, but services have not kept pace with increasing demand. In 2023 the Australian Government launched an inquiry into ADHD services in Australia.

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(27%). The most common service request was for affordable and accessible ADHD-specific care (71%), followed by support services tailored to diverse populations and life stages. Proposed solutions focused on Medicare-funded access to psychological and psychiatric services (68%), expanded roles for general practitioners, improved provider training (39%), and recognition of ADHD under the National Disability Insurance Scheme (NDIS). Submissions also highlighted misalignment between current clinical guidelines and public expectations, particularly regarding school-based screening and NDIS eligibility.

Conclusions: The findings highlight substantial unmet needs and systemic barriers in ADHD diagnosis and care in Australia. The AI-assisted analysis of consumer submissions offers a scalable method for integrating lived experience into policy development. Coordinated reforms in access, funding, and workforce training are needed to align services with both clinical evidence and community expectations.

Key points

- This study provided evidence of systemic gaps in ADHD services in Australia
- 71% of respondents cited a need for affordable services
- 46% of respondents cited problems with long wait times, indicative of inadequate service capacity
- 43% of respondents cited gender bias, wanting services tailored to girls and women, and gender-diverse populations
- 39% of respondents cited a lack of specialised care for ADHD and 39% recommended improved ADHD training for professionals



Introduction

Attention-deficit hyperactivity disorder (ADHD) is a neurodevelopmental disorder defined by impaired levels of inattention, organisation, and/or hyperactivity-impulsivity.¹ Although previously considered a disorder of childhood, it is increasingly recognised that functional impairment persists into adulthood in around 60-86% of individuals diagnosed.²

Untreated ADHD has been associated with poorer outcomes across a range of diverse health and social domains.³⁻⁶ The prevalence of ADHD in Australia is estimated at 6-10% in children and adolescents and 2-6% in adults. This equates to around 800,000 Australians and an estimated annual cost of approximately \$20 billion.⁷

The prevalence of ADHD in Australia, based on prescribing data, has increased two-fold from 2013 to 2020.⁸ International data show comparable trends in America⁹ and Finland.¹⁰

The surge in ADHD diagnoses may be attributed to heightened awareness of ADHD, particularly among adults and females, two groups historically underdiagnosed.¹¹ Additionally, during the COVID-19 pandemic, the loss of the structural and social supports consequent to working from home may have exacerbated symptoms of ADHD and contributed to higher diagnosis rates.¹²

The capacity of support services has been inadequate to meet this demand. In 2023, the Australian Senate conducted an inquiry into the barriers to consistent, timely and best practice assessment of attention deficit hyperactivity disorder (ADHD) and support services for people with ADHD.¹³ The one recommendation supported by the government was for uniform prescribing rules for ADHD medications.¹⁴

Artificial intelligence (AI) and natural language processing (NLP), AI can enhance the efficiency of qualitative health research.^{15, 16} While the official Australian Senate Inquiry report summarises themes from public submissions, our study leverages a large language model (LLM) to conduct a detailed thematic analysis that quantifies subthemes such as

transitional care gaps and gender-diverse needs. These granular insights extend beyond the broad findings of the report, providing a richer, frequency-ranked mapping of barriers and solutions in ADHD care.

This study aims to identify and cluster key themes from the submissions to the Senate Inquiry from individuals and families affected by ADHD using AI-supported thematic analysis. The findings may be used to inform service reform that addresses existing gaps in ADHD care and support.

Methods

Study Design

A mixed-methods approach was employed, combining artificial intelligence (AI) and natural language processing (NLP) techniques with traditional quantitative analysis to extract and categorise data.

Data collection/extraction

Between March and June 2023, the Australian Parliament invited submissions to the Senate Inquiry, giving 12 terms of reference ¹³ (Table 1). A total of 701 were received and made freely available ¹³. Our study was filtered to include only the 505 written submissions from individuals with lived experience of ADHD.

Table 1: Senate Inquiry Terms of Reference for public submissions

https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Community_Affairs/ADHD/Terms_of_Reference

Barriers to consistent, timely and best practice assessment of attention deficit hyperactivity disorder (ADHD) and support services for people with ADHD, with particular reference to:

- (a) adequacy of access to ADHD diagnosis;
- (b) adequacy of access to supports after an ADHD assessment;
- (c) the availability, training and attitudes of treating practitioners, including workforce development options for increasing access to ADHD assessment and support services;

- (d) impact of gender bias in ADHD assessment, support services and research;
- (e) access to and cost of ADHD medication, including Medicare and Pharmaceutical Benefits Scheme coverage and options to improve access to ADHD medications;
- (f) the role of the National Disability Insurance Scheme in supporting people with ADHD, with particular emphasis on the scheme's responsibility to recognise ADHD as a primary disability;
- (g) the adequacy of, and interaction between, Commonwealth, state and local government services to meet the needs of people with ADHD at all life stages;
- (h) the adequacy of Commonwealth funding allocated to ADHD research;
- (i) the social and economic cost of failing to provide adequate and appropriate ADHD services;
- (j) the viability of recommendations from the Australian ADHD Professionals Association's Australian evidence-based clinical practice guideline for ADHD;
- (k) international best practice for ADHD diagnosis, support services, practitioner education and cost; and
- (l) any other related matters.

Data

validation

A structured large language model (LLM) prompt was developed and aligned to three key questions: (1) What are the current problems experienced by individuals with ADHD? (2) What services do they want? (3) What solutions do they suggest? The LLM was validated using three human annotators. This first involved a learning sample of 5 submissions. The LLM was used to extract information, organised into the three categories: 'current problems,' 'solutions suggested,' and 'services wanted.' Any available demographic data (respondent gender, state of residence, age, parental status, and relationship to the person with ADHD) were also extracted. These five learning examples were presented to the human annotators to demonstrate the structure to be followed for the individual data extraction.

To avoid bias the three human annotators were blinded to the Senate Inquiry terms of reference, official report, and government response. Each annotator independently extracted information from a randomly selected subsample of 25 submissions. The extracted data from human annotators were compared to the LLM outputs using an LLM-

as-judge evaluation method. Additionally, inter-annotator agreement was calculated to establish a human accuracy benchmark.

The three human annotators were senior medical students with an interest in neurodevelopmental health. Their training was overseen by a senior clinician-researcher with expertise in ADHD care and a strong track record in qualitative health research. The annotators participated in structured training sessions, which included guided review of sample submissions, discussion of annotation criteria, and iterative feedback on their extraction accuracy. Ongoing support and quality assurance were provided throughout the project to ensure consistent application of the coding schema and maintain reliability.

The LLM was found to be superior to two of the three human analysers. A human accuracy benchmark was formed by averaging the similarity of results over comparisons between each human annotator.

Data categorisation

Of the 505 submissions, 25 were used in the AI validation process and subsequently excluded, resulting in a total of 480 submissions.

To enable thematic analysis, all extracted responses were embedded using AI and similar responses were grouped into distinct categories through agglomerative clustering. A second LLM step labelled each cluster to aid interpretability.

The AI-generated categories were reviewed and further grouped by the human annotators into themes. Where a category was relevant to multiple themes, it was assigned to the most pertinent by consensus among the human annotators.

Data analysis

Descriptive statistics were generated to summarise respondent demographics and thematic frequencies across all submissions. Themes were ranked by frequency within each category (current problems, services wanted, solutions suggested) and graphically

visualised as the percentage of respondents providing data for each theme.

Findings/Results

Demographics

All 480 submissions reported some demographic data. Most authors were female (346 out of 402, 86%). Of 478 submissions that gave the information, 384 (80%) had ADHD themselves, 147 (31%) disclosed a son, 112 (23%) a daughter, 17 (3.6%) a spouse and 13 (2.7%) a sibling with ADHD. Of the 315 submissions (65%) disclosing the information, the largest number (45%) came from NSW (Table 2).

Table 2: AI detected population characteristics from individual submissions.

Characteristic	N*	Percentage (%)
Gender (<i>n</i> = 402)		
Female	346	86
Male	56	14
State (<i>n</i> = 315)		
ACT	34	11
NSW	143	45
NT	2	1
QLD	13	4
SA	11	3
TAS	12	4
VIC	65	21
WA	35	11

*Based on the number of submissions that included demographic data.

Current problems

The major themes were costly services and long wait times, each mentioned in 46% of submissions (Figure 1) (Table 3). Lack of specialised support was mentioned in 39%. This referred to a shortage of specialists and a lack of specialised understanding of ADHD among healthcare professionals. Challenges in diagnosis (36%) included delays due to misdiagnosis and dismissive attitudes of healthcare professionals, and late diagnosis in adulthood. Gender bias, mentioned in 27%, also had implications for diagnosis and treatment. Lack of ongoing support for ADHD was a problem for 38%. Educational and employment challenges (18% and 19% respectively) are related to inadequate support and lack of understanding and accommodation for ADHD. The submissions illustrated the interactions of the various problems, with undiagnosed and untreated ADHD leading to poor academic performance, underemployment and job insecurity, thereby reducing earning capacity and impacting the ability to pay for private services.

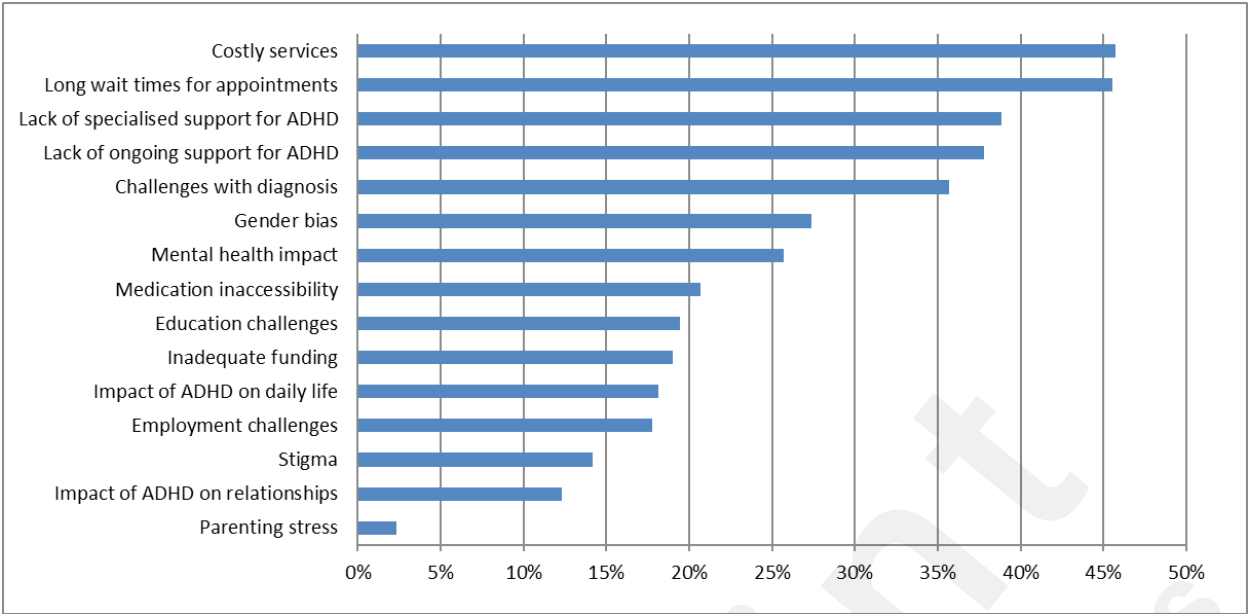


Figure 1: ‘Current problems’. AI extracted ‘Current problems’ have been grouped together into themes. The chart gives the percentage of submissions describing problems for each theme. It is organised in descending order, from highest to lowest frequency.

Table 3: Current problems

Theme	AI-generated categories
Costly services	Access and Affordability of ADHD Coaching and Support Services
	Financial Barriers to Accessing Therapeutic Services
	Financial Burden of Medical Assessments and Treatments
	Financial Burden of Psychiatric Appointments and Medications
	High Financial Costs of ADHD Diagnosis and Treatment
	High Costs of ADHD Assessments and Diagnosis
	High Out-of-Pocket Costs for Assessments and Therapies
Long wait times for ADHD Appointments	Long wait times for ADHD Appointments
	Long Wait Times for Specialist Appointments
	Appointment Wait Times
	Long Wait Times for Psychiatrist Appointments
	Long Wait Times for Assessments and Treatment
	ADHD Assessment and Treatment Wait Times
	Long Wait Times for Diagnosis and Treatment
	Long Wait Times for Pediatric and Child Psychiatric Services
	Difficulty Accessing Timely ADHD Assessments and Support Services

Lack of specialised support for ADHD	ADHD Specialist Shortage and Access Issues
	Lack of ADHD Awareness and Understanding Among Healthcare Professionals
	Lack of Support and Understanding from Healthcare Professionals
	Limited Availability of Qualified ADHD Specialists in Australia
Lack of ongoing support for ADHD	Barriers to Accessing Affordable and Appropriate Support Services
	Post-Assessment Support Challenges
	Post-Diagnosis Support Challenges
	Inaccessibility of Healthcare and Support Services for Adults with ADHD
	Limited Access to Mental Health Services
Challenges with diagnosis	Challenges in ADHD Diagnosis and Support for Children
	Misdiagnosis of Mental Health Disorders
	Late ADHD Diagnosis in Adulthood
	Dismissive Attitudes of Healthcare Professionals Towards ADHD Diagnosis
	Barriers and Challenges in Obtaining an Adult ADHD Diagnosis
	Lengthy and Complicated ADHD Diagnosis Process
	Lengthy and Complex Diagnostic Process Issues
Gender bias	Inadequate Access to ADHD Diagnosis
	ADHD Awareness and Understanding in Women by Healthcare Providers
	Gender Bias in ADHD Diagnosis and Treatment
Mental health impact	Gender Bias in Medical Diagnosis and Treatment
	Low Self-Esteem and Feelings of Inadequacy
	Daughter's Emotional and Social Challenges Due to ADHD and Anxiety
	Emotional Regulation and Dysregulation
	Mental Health Challenges Related to ADHD and Emotional Struggles
Medication inaccessibility	Mental Health Challenges and Disorders
	Limitations and Challenges of Medication-Based Treatments
	Strict Medication Access Regulations
	Access Challenges to ADHD Medication Due to Regulations
Education challenges	Barriers to Affordable Medication Access
	Academic and Professional Performance Inconsistencies
	School Refusal and Child Anxiety Impact on Academic Performance
	Inadequate Support for Neurodivergent Students in Higher Education

	Inadequate School Support for Students with ADHD
	Inadequate Communication and Support for Children's Educational Needs
	Teacher Training on ADHD and Neurodiversity
Inadequate funding	Recognition of ADHD in NDIS
	Insufficient Funding for ADHD Research and Services
Impact of ADHD on daily life	Difficulty with Concentration and Task Management
	Time Management and Organizational Challenges
	Executive Dysfunction and Daily Life Challenges
	Financial Instability and Risk of Homelessness
	ADHD and Financial Impulsivity Challenges
Employment challenges	ADHD and Employment Challenges
	Job Insecurity Due to Inability to Perform
	Work-Related Burnout and Mental Health Challenges
	Workplace Discrimination and Lack of Accommodations for Individuals with ADHD
Stigma	Stigma and Misunderstandings Surrounding ADHD
Impact of ADHD on relationships	Family Relationship Challenges and Parenting Strains
	Negative Impact of ADHD on Personal and Work Relationships
	Challenges in Maintaining Social Relationships
Parenting Stress	Parenting Stress and ADHD

Services wanted

All 480 submissions identified service improvements to better support people with ADHD. The most frequent theme was for affordable access to services, mentioned by 71% (Figure 2) (Table 4). Accessibility also referred to the range of ADHD-specific services available, which 59% mentioned could be improved with post-diagnostic support, life coaching for adults and families, and mental health support. Sensitive service provision (43%) included a desire for services tailored to girls and women, and gender-diverse populations. Many submissions (34%) emphasised the need for educational and workplace support, listing ADHD screening in schools and workplace accommodations for people with ADHD. Recognition of ADHD for NDIS support was a priority for 40%, with 29% wanting Medicare rebates for ADHD diagnostic and mental health services, or some other financial assistance for ADHD-related costs. Ten per cent wanted general practitioners (GPs) to be able to prescribe ADHD medication.

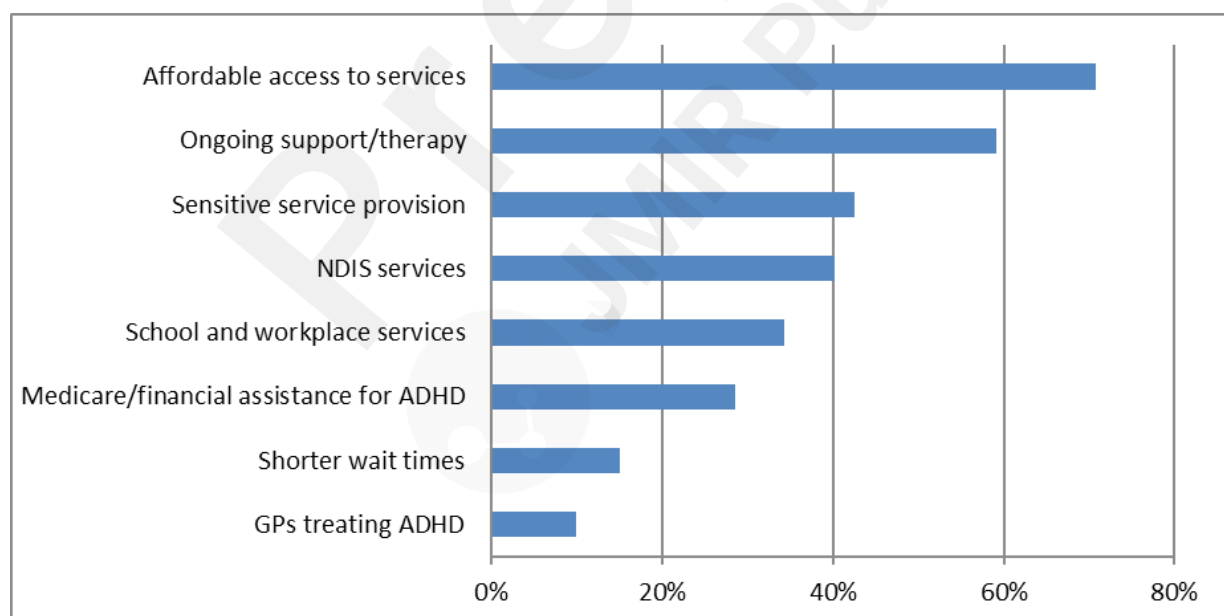


Figure 2: 'Services wanted'. All extracted 'Services wanted' have been grouped together into themes. The chart gives the percentage of submissions describing problems in each theme. It is organised in descending order, from highest to lowest frequency.

Table 4: Services wanted

Theme	AI-generated categories
Affordable access to services	Affordable and Streamlined Diagnostic and Treatment Processes
	Improved Access to ADHD Diagnosis and Support Services
	Affordable and Accessible Mental Health Services
	Access to Affordable Medication and Treatment Options
	Affordable Access to ADHD Medications
	Access to ADHD Medications
	ADHD Medications Coverage under the PBS
	Access to Affordable ADHD Coaching
	Access to Mental Health Professionals
Ongoing support/therapy	Post-Diagnosis Support Services
	Mental Health Support and Counseling
	ADHD Mental Health Support and Resources
	Occupational Therapy
	Support Services for Neurodivergent Individuals
	ADHD Support Groups
	ADHD Support Services for Adults and Families
	ADHD Management and Resources
	ADHD Coaching and Management Strategies
Sensitive Service Provision	Increased Availability of ADHD Trained Professionals
	Gender Bias and Diversity in ADHD Research and Treatment
	ADHD Training for Professionals Focused on Women
	ADHD Awareness and Education in Women and Girls
	ADHD Awareness and Sensitivity Training for GPs
	Comprehensive ADHD Assessment and Diagnosis
	Improved Training and Education for Healthcare Professionals on ADHD
	ADHD Stigma Reduction Campaigns
NDIS services	ADHD Recognition and Government Support
	Recognition of ADHD under NDIS
	Recognition of ADHD in the NDIS
	NDIS Support and Funding for ADHD
School and workplace services	ADHD Screening in School Populations
	Workplace Accommodations for Individuals with ADHD
	Educational Support for Children with ADHD in Schools
	Teacher Training on ADHD Management in Schools
	ADHD and Neurodiversity Training for Educators
	Increased Awareness and Education about ADHD in Schools and Workplaces

Medicare/Financial assistance	Medicare and Subsidized Psychiatric Services for ADHD Diagnosis
	Medicare Rebate for Mental Health Services
	Medicare Rebates for ADHD Services and Assessments
	ADHD Diagnosis and Treatment Funding
	ADHD Support and Government Funding
	Increased Government Funding for ADHD Research
	Financial Assistance for Healthcare Services
	Financial Assistance for ADHD-related Costs
Shorter service wait times	Shorter Wait Times for Assessments and Therapy Services
	ADHD Diagnosis and Assessment
	Timely Access to ADHD Assessment and Diagnosis
GPs treating ADHD	GPs Prescribing ADHD Medication

Solutions suggested

Solutions to enhance ADHD management were suggested in 478 submissions (>99%). The core message focused on access and affordability, as mentioned by 68% (Figure 3) (Table S5). This included a range of suggestions, including Medicare funding for psychology and psychiatry services, expanding the scope of GPs to prescribe ADHD medications, and expanding coverage by the Pharmaceutical Benefits Scheme (PBS) to ensure equitable access to medication that was not influenced by age of diagnosis. NDIS recognition for ADHD was mentioned by 35%. Improved provider training was a priority for 39%. This included GPs, mental health professionals and teachers. Support within educational and employment settings was mentioned by 29%, encompassing solutions such as mental health and occupational therapy support for students, as well as neurodiversity support in schools and workplaces. Suggestions for enhancing the availability of ADHD-specific support resources (27%) included a centralised information website and support programs for individuals with late diagnoses. Submissions supported increased research funding (19%), incorporating neuro-affirming approaches and lived experience. Ten per cent supported the development of standardised guidelines for diagnosis and treatment.

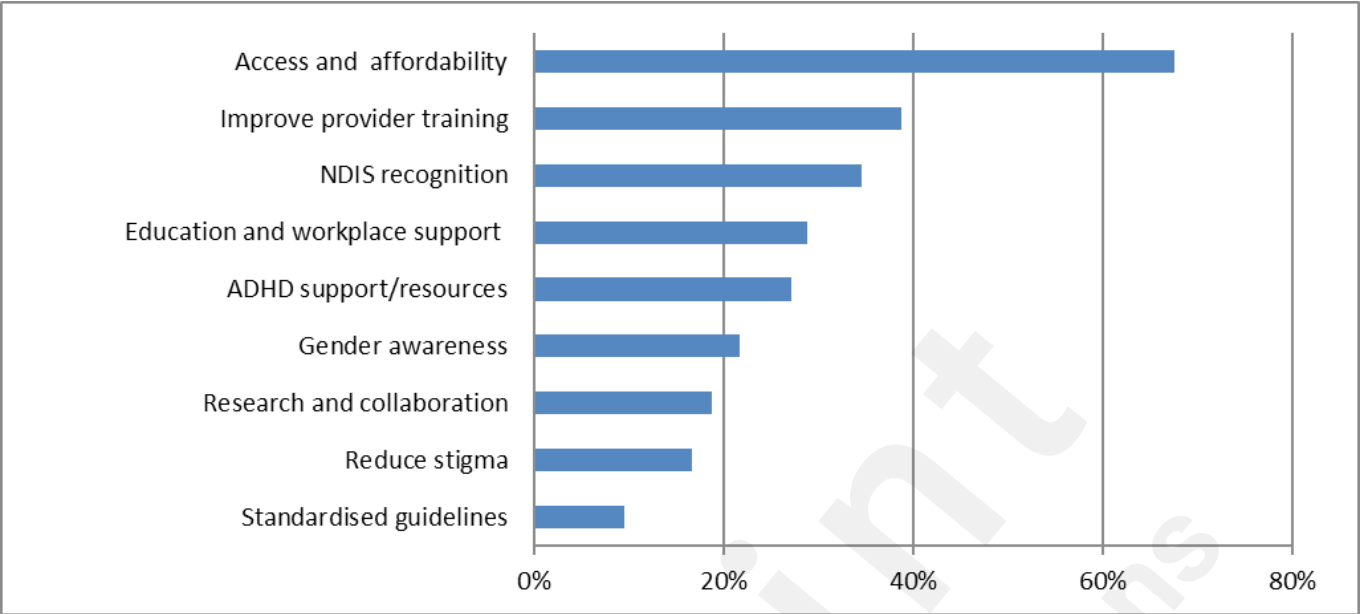


Figure 3: ‘Solutions suggested’. AI extracted ‘Solutions suggested’ have been grouped together into themes. The chart gives the percentage of submissions describing problems in each theme. It is organised in descending order, from highest to lowest frequency.

Table 5: Solutions suggested

Theme	AI-generated category
Access affordability	and Increase in Medicare-Funded Psychology Sessions
	Medicare-subsidized Access to Psychiatrists for ADHD Diagnosis
	Medicare Coverage for ADHD Diagnosis and Treatment
	Medicare Rebates for ADHD and Psychiatric Services
	Allowing GPs to Prescribe ADHD Medications
	Standardizing ADHD Medication Prescribing and Access Guidelines
	Equitable Pricing for ADHD Medication Across Demographics
	Expanding ADHD Medication Coverage under the Pharmaceutical Benefits Scheme (PBS)
	Reducing Costs in ADHD Diagnosis and Treatment
	ADHD Financial Assistance and Subsidies
	Improving Accessibility and Affordability of ADHD Assessments and Treatments
	Improving Access to Mental Health Services for ADHD
	Access to Affordable Mental Health Services
	ADHD Assessment and Support Funding
	Increasing Funding for ADHD Diagnosis and Treatment Professionals
	Funding and Access to ADHD Services

		Reducing Wait Times for ADHD Diagnosis and Treatment
		Reducing Wait Times for Healthcare Appointments and Services
Improve training	provider	Increasing Sensitivity and ADHD Awareness Training for GPs to Reduce Bias
		ADHD Training for GPs and Mental Health Professionals
		ADHD Training and Support for Teachers
		Early Screening and Assessment for At-Risk Populations and Children with ADHD and Autism
		Increasing ADHD Diagnosis and Treatment Capacity
		Holistic Treatment Approaches for ADHD
NDIS recognition		Expanding NDIS Eligibility and Support for Adults with ADHD
		Advocacy for ADHD Recognition under NDIS
		Inclusion of ADHD in NDIS Eligibility
		ADHD Recognition as a Primary Disability by NDIS
		ADHD as a Primary Disability under NDIS
		Recognizing ADHD as a Primary Disability for NDIS Support
		ADHD Recognition as a Disability
Education and workplace support		Support Strategies for ADHD Students in Educational Institutions
		Supporting Neurodiversity in Education and Workplace
		Workplace Support and Education for ADHD
		Increasing Access to Mental Health and Occupational Support in Schools
ADHD support resources		Improving Accessibility and Support Services for ADHD
		Centralised ADHD Resource Website
		ADHD Advocacy and Accessible Resources
		ADHD Support Groups and Resources
		Support Programs for Late-Diagnosed Individuals
		ADHD Coaching Accessibility and Accreditation
Gender awareness		ADHD Research and Gender-Specific Considerations for Women and Girls
		ADHD Awareness and Training for Women and Gender-Diverse Individuals
Research collaboration		ADHD Research in Diverse Populations and Neuroaffirming Approaches
		Increased Funding for ADHD Research
		Incorporating Lived Experiences in ADHD Service Development and Research
		Improved Communication and Collaboration Across Services and Sectors
Reduce stigma		Community Awareness and Education on ADHD
		Increasing Awareness and Reducing Stigma Around ADHD
		ADHD Awareness and Stigma Reduction Campaigns
Standardised guidelines		Standardizing National Guidelines for ADHD Diagnosis and Treatment
		Streamlined ADHD Diagnosis and Treatment Processes

Discussion

The Senate inquiry offered a unique opportunity to examine a large repository of lived experience narratives from individuals with ADHD and their families. By applying AI-assisted data extraction and thematic clustering, this study enabled the scalable and structured analysis of these submissions, highlighting key barriers, unmet needs, and proposed solutions. Respondents described significant systemic barriers to timely diagnosis and treatment, including high out-of-pocket costs and prolonged wait times. These challenges were compounded by the daily impacts of living with undiagnosed or unsupported ADHD, affecting education, employment, and family life. The most frequently requested services directly mirrored the challenges reported: improved affordability, timely access to diagnosis and therapy, and ongoing support across the lifespan. Respondents also highlighted the need for gender-sensitive and inclusive service models and greater financial support for ADHD-related healthcare costs. While access and affordability were central concerns, respondents also consistently called for systemic improvements, including enhanced training for healthcare professionals, educators, and employers to better recognise and support people with ADHD across a range of settings.

The large sample size is a major strength; however, the self-selected nature of the cohort may limit generalisability. Submissions were disproportionately from women, particularly those with personal ADHD diagnoses, suggesting possible gender-related motivations for participation, possibly reflecting barriers faced by women in obtaining a diagnosis and treatment. From the demographic information provided, the submissions were predominantly from women who themselves had ADHD, with nearly half residing in NSW. The views of men are likely underrepresented, comprising only 14% of the respondents.

A key strength of this study lies in its use of validated AI methods to extract and synthesise data at scale, enabling efficient thematic analysis of over 480 submissions. Validation against three blinded human annotators demonstrated the LLM's consistency and reliability. Final thematic classification remained under human oversight, preserving interpretative accuracy and accountability. The large sample size supports the validity of the findings. However, a different group of human annotators may have interpreted and grouped the categories differently, potentially leading to variability in data synthesis and presentation. However, AI validation was based on a small subsample (25 of 505 submissions), which may limit the robustness of model performance assessment. Future work should expand the validation sample and consider iterative human-in-the-loop refinement to further enhance reliability.

The data collection would have been biased by the terms of reference, which clearly prompted the respondents to address a broad range of topics relating to access to ADHD assessment and support. They were not prompted to specify the types of supports they wanted, nor asked for solutions. Their resemblance to the themes can infer the influence of the terms of reference. However, our choice of a different categorisation (problems experienced, services wanted, solutions suggested) and the reliance on AI and human annotators blinded to the terms of reference did not further potentiate the intrinsic biases in the data. The numbering of the terms of reference, which might have reflected prioritisation by the organisers, may have introduced further bias by projecting this prioritisation onto the respondents. By reporting the data themes in order of frequency, we have tried to elucidate the order of priorities of the respondents. It is noteworthy that the major emphasis that the respondents gave to the cost of accessing ADHD services was unprompted by the terms of reference, as was the notion of treatment by GPs.

This study analyses the written submissions to the Senate inquiry by people with lived

experience of ADHD. It therefore uses much of the data included in the official report by the Community Affairs Reference Committee¹³. The official report also included evidence from 79 witnesses at three public hearings, as well as submissions from professionals and community support organisations. The official report spans 284 pages, many of which are devoted to direct quotes that provide specific details about people's experiences. By contrast, in the present study, only information relating to the three key questions was extracted. In this process, the richness of the individual narratives has been lost, but the analysis has been able to quantify by frequency the main problems experienced, services wanted, and solutions suggested. The conclusion of the official report states: 'Overwhelmingly, people with ADHD want more accessible support to help them thrive and reach their best potential—in their relationships, in their studies and in their work.' The present study complements this message, making it more powerful by providing the numeric data. Unlike the Senate Inquiry's high-level thematic summary, our LLM-assisted analysis offers a novel, data-driven perspective by identifying and quantifying subthemes that received less emphasis in the official report. This includes issues such as NDIS eligibility challenges, transitional care gaps during adolescence, and the specific needs of gender-diverse individuals with ADHD. By providing prevalence-ranked themes and highlighting nuanced service gaps, our approach complements and deepens the understanding of barriers and solutions in ADHD care.

Findings from this study reveal a critical disconnect between clinical guidelines, current practice, and the realities of individuals navigating ADHD care. Access to diagnosis and management appears limited by systemic barriers, including long wait times for specialists, high costs, and state-based regulations. Collectively, these issues result in a fragmented system that limits access to necessary care, thereby exacerbating symptoms and overall distress. Although a range of solutions were proposed to address these issues, a frequently

advocated solution was to expand the scope of GPs to diagnose and treat ADHD. This has been partially addressed by recent reforms in NSW. Under the new policy, GPs with accredited training will be able to provide ongoing prescriptions for patients with stable doses, with a smaller number enabled to “diagnose and initiate medications where appropriate.”¹⁷ However, in most cases, this limits GPs to maintenance prescribing once stability is achieved. Moreover, inconsistencies persist between states. Currently, Queensland alone permits GPs to initiate stimulant medication for children with ADHD aged 4-17 years,¹⁸ while Western Australia has announced plans to allow trained GPs to diagnose and treat ADHD.¹⁹ Therefore, despite the government’s support for one key recommendation to “...expedite the development of uniform prescribing rules to ensure consistency between state and territory jurisdictions...”¹³, nationwide discrepancies persist. Inconsistencies in ADHD diagnosis and management are further perpetuated by age at diagnosis, and gender bias. Submissions frequently reported disparities encountered for those first accessing care as adults, including higher medication costs and limited support services. These experiences reveal substantial gaps in support after childhood. These affect individuals transitioning into adult care or receiving a diagnosis in adulthood. Submissions further called for more gender-specific research, particularly regarding female presentations. This was strongly advocated, due to continual barriers reported by females in accessing timely ADHD diagnosis and management. Studies corroborate these concerns, reporting a younger age of diagnosis and treatment initiation in males compared to females.^{20,21} A contributing factor that may account for this delay is that the manifestation of ADHD symptoms in females may be more subtle, causing them to be overlooked by clinicians.²¹⁻²³ This reflects a common belief among submissions, with many attributing their delayed diagnosis to a general lack of provider knowledge regarding ADHD in females. This experience have acted as an incentive for some to write a submission, contributing to the

female predominance.

Another notable finding is the misalignment between community perspectives and current evidence regarding ADHD diagnosis and management. This highlights the need for clear communication and broader education around ADHD. For example, many parents supported routine school-based screening for early detection of ADHD. However, this is not recommended in the Australian clinical practice guidelines for ADHD,⁷ as there is currently no single appropriate screening tool.²⁴ A second example relates to the NDIS, with submissions urging for ADHD to be recognised as a primary diagnosis to qualify for NDIS support. Currently, NDIS support for ADHD is only granted in association with significant functional impairment or another NDIS recognised primary disability. This broadly accords to the Australian clinical practice guidelines, which emphasise that eligibility should be determined by individual needs rather than diagnosis alone.⁷ While this appears logical, as of March 2023, only 40 adults with ADHD as their primary diagnosis were receiving NDIS support.¹³ This suggests that the NDIS may systematically minimise the impact of ADHD on daily functioning.

The challenges identified in this study are closely interrelated, often compounding one another. For instance, delays in diagnosis lead to academic and occupational setbacks, which then restrict financial access to care, perpetuating a cycle of disadvantage. Addressing these issues will require not only targeted service improvements but also coordinated, cross-sector reform to build an ADHD care system that is equitable, accessible, and informed by lived experience. As reforms such as expanded GP prescribing are implemented, robust evaluation will be critical to ensure alignment with community needs. Evaluation should include the quality, capacity and cost-effectiveness of the care, to the satisfaction of the ADHD community. Evaluation will therefore require a major emphasis on consumer feedback. The findings of this study will be useful for assessing and informing

future reform.

Conclusion

This study used AI to analyse Senate Inquiry submissions from people with lived experience of ADHD. The findings highlight systemic gaps in access, affordability, and continuity of ADHD care, with frequent reports of diagnostic delays, high out-of-pocket costs, and limited support in adult and gender-diverse populations. Respondents consistently called for improved access to affordable services, broader GP prescribing powers, better provider training, and formal recognition of ADHD within disability and mental health systems. These results support the need for nationally consistent policies and evaluation of emerging service models to ensure reforms align with the priorities of the ADHD community.

Conflict of Interest statement

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Data Availability Statement

The data are freely available [ref 13]

Author contributions

AP and BH conceived and designed the study. BH did the AI programming and analysis. SC AK and AF were the human annotators for the AI validation and wrote the first draft, supervised by AP, BH and HB. All reviewed the paper – extensive edits by AP and BH.

References:

1. American Psychiatric Association. DSM-Task Force. *Diagnostic and Statistical Manual of Mental Disorders : DSM-5*. 5th ed. American Psychiatric Association; 2013.
2. Cherkasova MV, Roy A, Molina BSG, et al. Review: Adult Outcome as Seen Through Controlled Prospective Follow-up Studies of Children With Attention-Deficit/Hyperactivity Disorder Followed Into Adulthood. *J Am Acad Child Adolesc Psychiatry*. 2022;61(3):378-391. <https://doi.org/10.1016/j.jaac.2021.05.019>
3. Li L, Chang Z, Sun J, et al. Association Between Pharmacological Treatment of Attention-Deficit/Hyperactivity Disorder and Long-term Unemployment Among Working-Age Individuals in Sweden. *JAMA Netw open*. 2022;5(4):e226815-e226815. <https://doi.org/10.1001/jamanetworkopen.2022.6815>
4. Chang Z, Ghirardi L, Quinn PD, Asherson P, D'Onofrio BM, Larsson H. Risks and Benefits of Attention-Deficit/Hyperactivity Disorder Medication on Behavioral and Neuropsychiatric Outcomes: A Qualitative Review of Pharmacoepidemiology Studies Using Linked Prescription Databases. *Biol Psychiatry*. 2019;86(5):335–343. <https://doi.org/10.1016/j.biopsych.2019.04.009>
5. Lichtenstein P, Halldner L, Zetterqvist J, et al. Medication for attention deficit-hyperactivity disorder and criminality. *N Engl J Med*. 2012;367(21):2006–2014. <https://doi.org/10.1056/NEJMoa1203241>
6. Shaw M, Hodgkins P, Caci H, et al. A systematic review and analysis of long-term outcomes in attention deficit hyperactivity disorder: effects of treatment and non-treatment. *BMC Med*. 2012;10:99–99. <https://doi.org/10.1186/1741-7015-10-99>
7. May T, Birch E, Chaves K, et al. The Australian evidence-based clinical practice guideline for attention deficit hyperactivity disorder. *Aust N Z J Psychiatry*. 2023;57(8):1101. <https://doi.org/10.1177/00048674231166329>

8. Bruno C, Havard A, Malcolm BG, et al. Patterns of attention deficit hyperactivity disorder medicine use in the era of new non-stimulant medicines: A population-based study among Australian children and adults (2013–2020). *Aust N Z J Psychiatry*. 2023;57(5):675–685. <https://doi.org/10.1177/00048674221114782>
9. Xu G, Strathearn L, Liu B, Yang B, Bao W. Twenty-Year Trends in Diagnosed Attention-Deficit/Hyperactivity Disorder Among US Children and Adolescents, 1997-2016. *JAMA Netw Open*. 2018;1(4):e181471. <https://doi.org/10.1001/jamanetworkopen.2018.1471>
10. Westman E, Prami T, Kallio A, et al. Increase in Occurrence of Attention Deficit Hyperactivity Disorder Differs by Age Group and Gender-Finnish Nationwide Register Study. *Brain Behav*. 2025;15(1):e70253. <https://doi.org/10.1002/brb3.70253>
11. Abdelnour E, Jansen MO, Gold JA. ADHD Diagnostic Trends: Increased Recognition or Overdiagnosis?. *Mo Med*. 2022;119(5):467–473
12. Nakai T, Tsuji T, Tsuda H, et al. Working Conditions, Work Productivity, Quality of Life, and Depressive Symptoms in Undiagnosed Adults with and without Attention-Deficit/Hyperactivity Disorder (ADHD) Symptoms During the COVID-19 Pandemic. *NDT*. 2022;Volume18:1561. <https://doi.org/10.2147/NDT.S358085>
13. The Senate Community Affairs References Committee. Assessment and support services for people with ADHD. Updated November, 2023. Accessed April 7, 2025. https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Community_Affairs/ADHD
14. Australian Government. Australian Government response to the Senate Community Affairs References Committee report: Assessment and support services for people with Attention Deficit Hyperactivity Disorder (ADHD) 2024. Updated November 12, 2023. Accessed May 10, 2025. https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Community_Affairs

[/ADHD/Government_Response](#)

15. Hitch D. Artificial Intelligence Augmented Qualitative Analysis: The Way of the Future?. *Qual Health Res*. 2024;34(7):595–606. <https://doi.org/10.1177/10497323231217392>
16. Cheligeer C, Yang L, Nandi T, et al. Natural language processing (NLP) aided qualitative method in health research. *J Integr Des Process*. 2022;27(1):41–58. <https://doi.org/10.3233/JID-220013>
17. NSW Health. Game changing reforms allow GPs to treat ADHD to reduce wait times and costs. 2025. Updated May 26, 2025. Accessed June 4, 2025. <https://www.nsw.gov.au/ministerial-releases/game-changing-reforms-allow-gps-to-treat-adhd-to-reduce-wait-times-and-costs>
18. Queensland health. Prescribing amfetamines and methylphenidate (psychostimulants). Updated July, 2024. Accessed June 4, 2025. https://www.health.qld.gov.au/__data/assets/pdf_file/0021/1160391/fs-prescribing-psychostimulants.pdf
19. Hansard Daily: Legislative Council – Updated May 28, 2025. Accessed June 4, 2025. <https://www.parliament.wa.gov.au/hansard/daily/uh/2025-05-28/15?sid=f969568071794f698f>
20. Martin J, Langley K, Cooper M, et al. Sex differences in attention-deficit hyperactivity disorder diagnosis and clinical care: a national study of population healthcare records in Wales. *J Child Psychol Psychiatry*. 2024;65(12):1648–1658. <https://doi.org/10.1111/jcpp.13987>
21. Skoglund C, Sundström Poromaa I, Leksell D, et al. Time after time: failure to identify and support females with ADHD - a Swedish population register study. *J Child Psychol Psychiatry*. 2024;65(6):832–844. <https://doi.org/10.1111/jcpp.13920>
22. Siddiqui U, Conover MM, Voss EA, Kern DM, Litvak M, Antunes J. Sex Differences in

- Diagnosis and Treatment Timing of Comorbid Depression/Anxiety and Disease Subtypes in Patients With ADHD: A Database Study. *J Atten Disord*. 2024;28(10):1347–1356. <https://doi.org/10.1177/10870547241251738>
23. Hinshaw SP, Nguyen PT, O'Grady SM, Rosenthal EA. Annual Research Review: Attention-deficit/hyperactivity disorder in girls and women: underrepresentation, longitudinal processes, and key directions. *J Child Psychol Psychiatry*. 2022;63(4):484–496. <https://doi.org/10.1111/jcpp.13480>
24. Mulraney M, Arrondo G, Musullulu H, et al. Systematic Review and Meta-analysis: Screening Tools for Attention-Deficit/Hyperactivity Disorder in Children and Adolescents. *J Am Acad Child Adolesc Psychiatry*. 2022;61(8):982–996. <https://doi.org/10.1016/j.jaac.2021.11.031>

Supplementary Files

CONSORT (or other) checklists

Checklist adapted from STROBE.

URL: <http://asset.jmir.pub/assets/412745c290885e4181819df7feaac48b.pdf>