

# Identifying ADHD in Adults with Dissociative Seizures (DS) using the ASRS v1.1 Questionnaire

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## Introduction

Dissociative or non-epileptic seizures (DS) is a common condition with no known medical treatment.

Attention deficit / hyperactivity disorder (ADHD) is a neurodevelopmental disorder and such disorders are thought to be very underdiagnosed in DS<sup>1,2</sup>.

Fatigue links both conditions. Excessive fatigue is highly prevalent in people with DS, whilst adults with ADHD are more fatigued, and those who also have chronic fatigue syndrome (CFS/ME) have more severe ADHD symptoms<sup>3</sup>. Upto 30% of adult CFS/ME sufferers have been found to carry a diagnosis of childhood ADHD<sup>4</sup>, whilst upto 45% of adult fibromyalgia sufferers, another related condition, screened positive for adult ADHD<sup>5</sup>.

Energy pacing helps fatigue and anecdotally reduces DS. Some adults with DS can't energy pace, reporting they feel constantly restless and 'on the go', characteristic ADHD traits. It follows that adults with DS who also have undetected ADHD will find it particularly hard to pace energy. Failing to identify ADHD in adults with DS may mean strategies aimed at fatigue or seizures fail.

## Aim

The idea to look for undetected ADHD in adults with DS first arose after two adults known to the seizure service with DS were independently diagnosed with and treated for ADHD and showed marked improvements in both fatigue and seizure control. In one case, near daily seizures fully resolved as ADHD symptoms improved and have remained largely controlled over five years later.

This service evaluation in outpatient adults with DS had one primary and several additional aims:

- the primary aim was to see if a standard tool for screening of adults with ADHD could be applied to the population with DS
- a secondary aim was to see how good the screen was for predicting true ADHD in this population
- A further aim was to get a sense of how common ADHD might be in adults with DS, to know if this might be an area worthy of formal research

## Method

Formal ADHD evaluation takes several hours so for our clinical purposes, the Adult ADHD Self-Report Scale (ASRS) v1.1 World Health Organisation (WHO) 18-point questionnaire was used. The 18-point ASRS takes under 10 minutes to complete and has been found to have high validity for adult ADHD with an accuracy of 96.2%<sup>5,6</sup>. In addition, the initial 6 questions can quickly screen out adults unlikely to have ADHD<sup>7</sup>.

For each of these 18 questions, place an X in the box on the right that best describes how often you have felt or behaved over the past 6 months.	Never	Rarely	Sometimes	Often	Very Often
1. How often do you have trouble wrapping up the final details of a project, once the challenging parts have been done?					
2. How often do you have difficulty getting things in order when you have to do a task that requires organisation?					
3. How often do you have problems remembering appointments or obligations?					
4. When you have a task that requires a lot of thought, how often do you avoid or delay getting started?					
5. How often do you fidget or squirm with your hands or feet when you have to sit down for a long time?					
6. How often do you feel overly active and compelled to do things, like you were driven by a motor?					
Part A					
7. How often do you make careless mistakes when you have to work on a boring or difficult project?					
8. How often do you have difficulty keeping your attention when you are doing boring or repetitive work?					
9. How often do you have difficulty concentrating on what people say to you even when they are speaking to you directly?					
10. How often do you misplace or have difficulty finding things at home or at work?					
11. How often do you get distracted by activity or noise around you?					
12. How often do you leave your seat in meetings or other situations in which you are expected to remain seated?					
13. How often do you feel restless or fidgety?					
14. How often do you have difficulty unwinding and relaxing when you have time to yourself?					
15. How often do you find yourself talking too much when you are in social situations?					
16. How often do you find yourself finishing the sentences of the people you are talking to, before they can finish themselves?					
17. How often do you have difficulty waiting your turn in situations when waiting is required?					
18. How often do you interrupt others when they are busy?					
Part B					

Figure 1. The ASRS v1.1.

Part A  
4 or more scores out of 6 in a shaded box is a 'positive' test and consistent with adult ADHD

Part B  
The 12 scores here give a fuller picture of the impact symptoms may be having on the person's daily life.

All suitable adults with newly-diagnosed or established DS attending my seizure clinic from 16.10.19 were offered ASRS screening. Lack of suitability was primarily for practical limitations to screening, the commonest reasons for which were: competing clinical priorities; severe cognitive impairment; lack of engagement with the diagnosis and management of DS; lack of time to discuss the purpose of the screen. All completed ASRS screens until 15.10.22 were included in the service evaluation.

Those with co-existent epilepsy were excluded for the purposes of the service evaluation, as it was considered a confounding variable for the presence of ADHD.

## Results

Between 16.10.19-15.10.22, ninety-three new and follow up people with DS agreed to try to complete the ASRS. Of these, only one person was unable to complete it, finding the questions too vague or confusing.

Of the remainder, 11/92 failed to meet the eligibility criteria for formal ADHD testing after being screened out by the first 6 questions (Figure 1, Part A).

This means 81/92 (88%) screened positive for ADHD. Of these, only 13 have so far had a formal psychiatric assessment for ADHD. Twelve (92%) of these were confirmed to have adult ADHD.

Of the remaining 68/92 who have not yet been formally assessed, two were referred for formal assessment but refused. One was refused because of a previous negative formal assessment for ADHD in 2015 and the other was refused because from her mother's screening questions, it was thought symptoms only began in her 40s (this is however under review).

Of the remaining 66, fifty were referred within the last two years so are not expected to have yet had a formal adult ADHD assessment, and the other sixteen are assumed to have either DNA'ed their assessment or the assessment and results are pending.

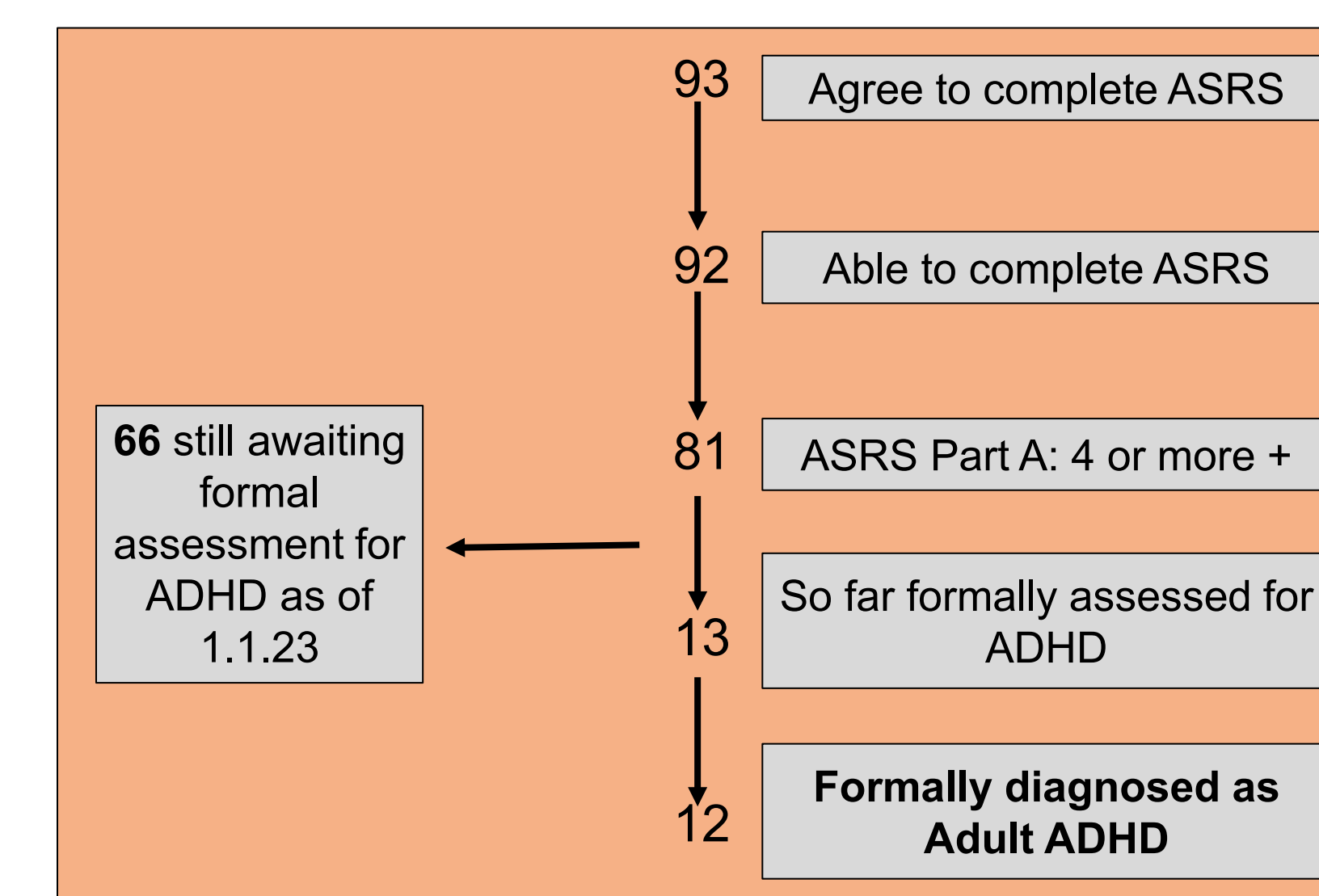


Figure 2. Outcomes for the 93 adults with dissociative seizures who agreed to self-rate using the ASRS

I also looked at the total scores on the 18-point ASRS of the 81/92 who screened positive for ADHD. Their mean score was 80.7/90. This compares with a mean score of 41/90<sup>7</sup> in the normal population and 63/90<sup>7</sup> or 67.1/90<sup>8</sup> in two confirmed adult ADHD populations.

## Conclusions

- The ASRS v1.1 can be completed by adults with DS
- When using the ASRS in this population, a high proportion appear to screen positive for ADHD
- Almost all of those who screened positive so far have also been formally diagnosed with Adult ADHD
- The total ASRS scores appeared to be above those of the 'otherwise healthy' Adult ADHD population
- There is no published literature looking primarily at a link between ADHD and dissociative seizures (DS)
- Formal research to evaluate true prevalence of ADHD in this population seems warranted
- If ADHD was identified as a 'risk factor' for DS, it would be important to assess if treatment of ADHD could influence seizure control. One mechanism for postulating this might be improvement in fatigue.

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