

OBJECTIVES

There are over 700 000 people that are on autistic spectrum in the UK. According to a systematic review substance use disorder rates are up to 36% in autistic people. However, very little seems to be known about the comorbidities of autism and substance use disorders, problematic alcohol use, or behavioural addictions. Therefore, understanding the aetiology underlying these conditions or effective ways of managing them in autistic people is crucial.

We are undertaking three literature reviews: substance use in autism, problematic alcohol use in autism and gambling in autism. This poster will present what is known on the subject and also where the gaps in the literature are.

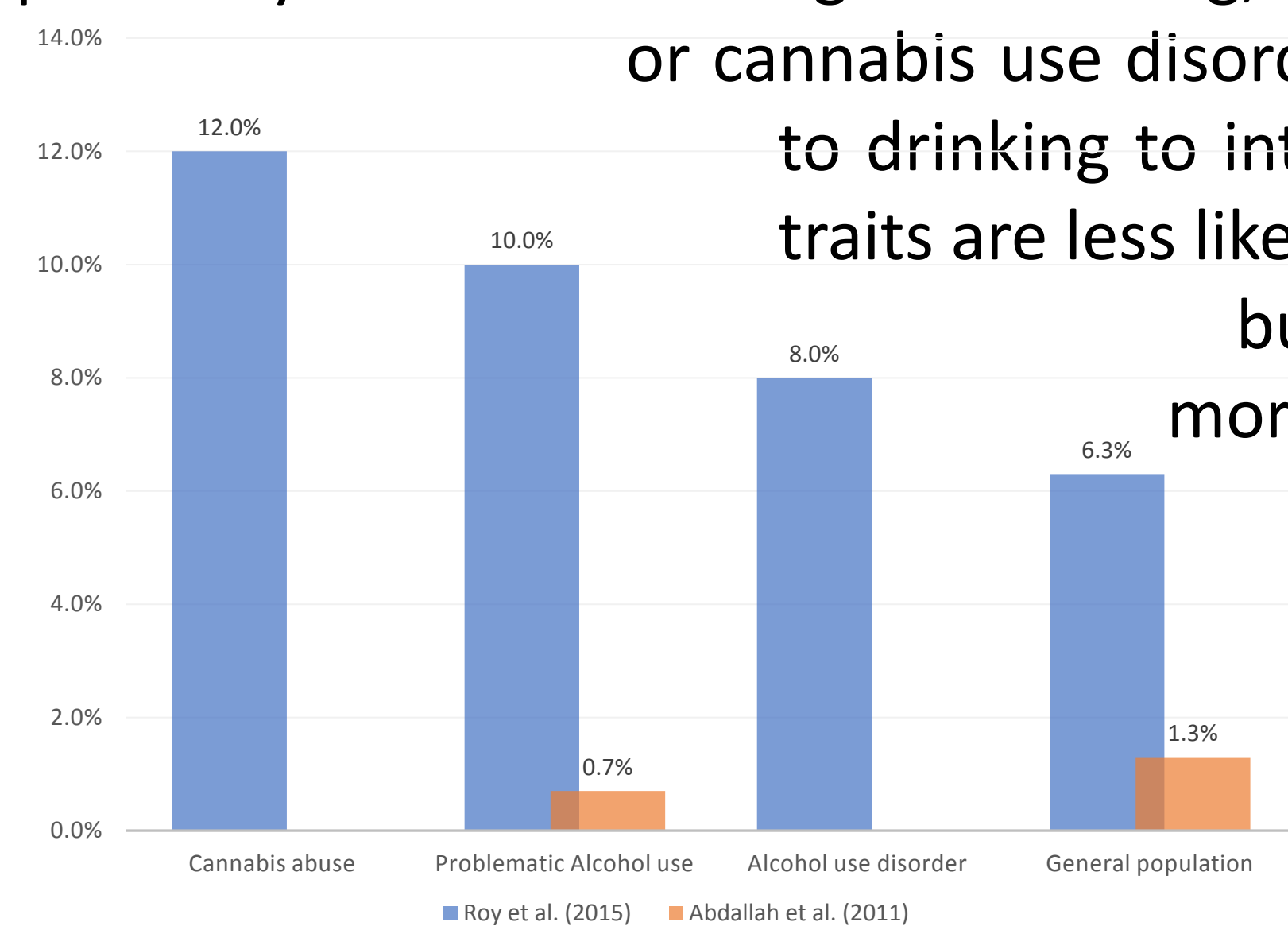
METHOD

This scoping review aimed to identify what is known in the current scientific literature on addictions and autism. We searched PUBMED database for the papers dated up to June 2021 using keywords and MeSH terms related to autism and substance use, alcohol use and gambling. All papers were screened at the title and abstract level and then at the full text level.

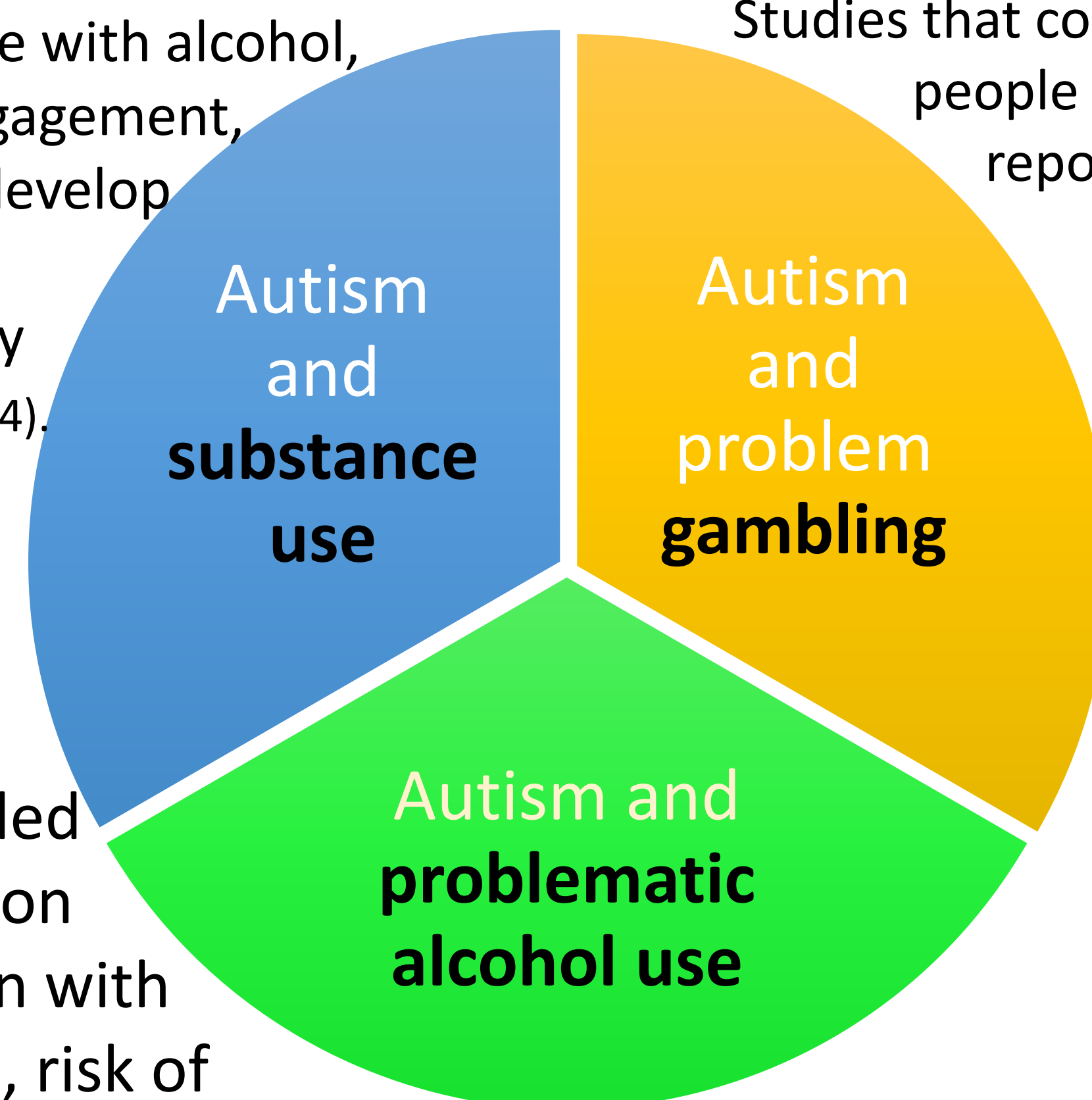
FINDINGS

1 1359 initial papers were identified for substance addiction in autism. After title & abstract level screening, 73 related papers were identified.

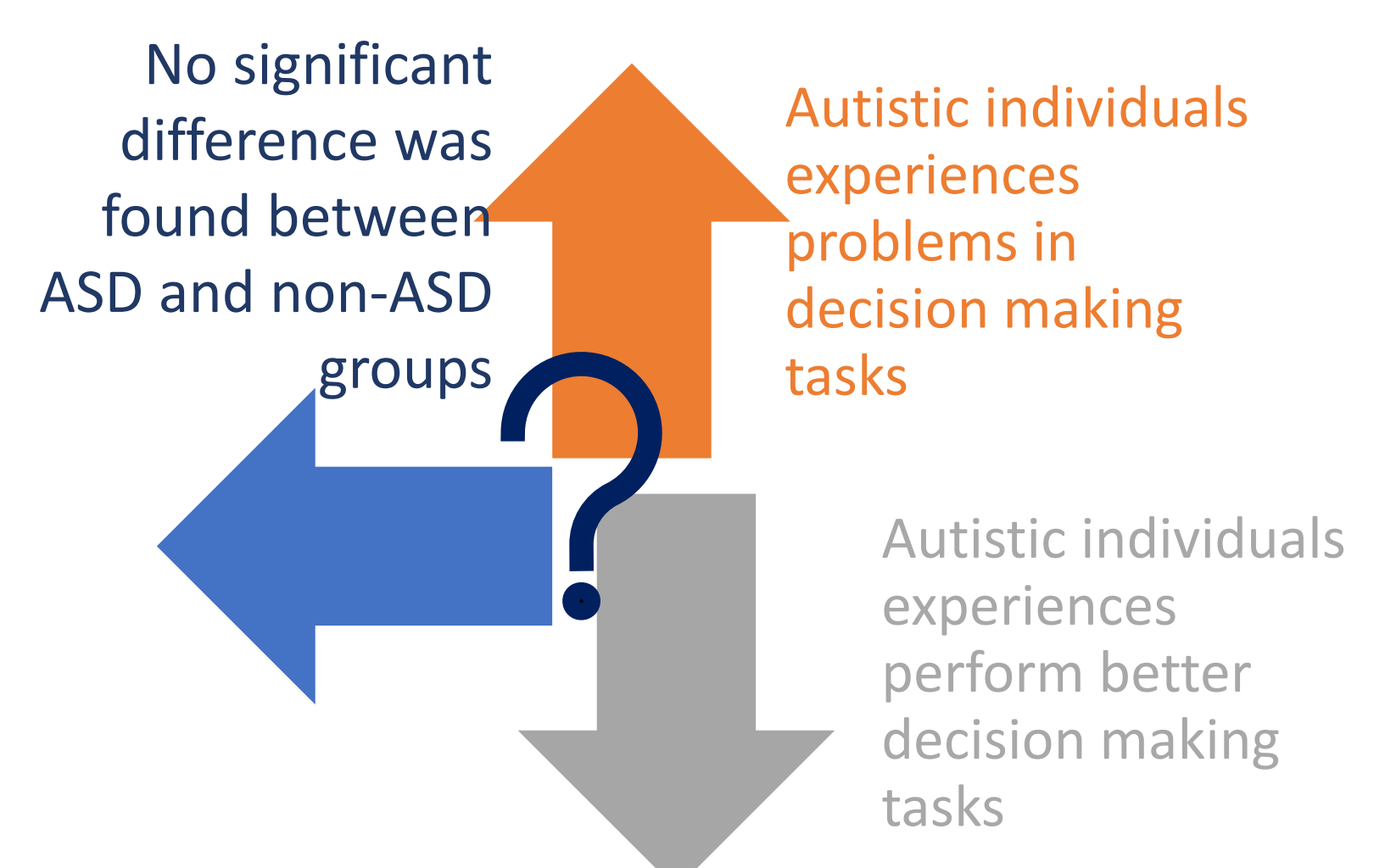
In the graph below, two key identified studies are summarized. According to Roy et al. (2015) cannabis abuse is 12%, problematic alcohol use is 10% and alcohol use disorder is 8% in autistic people, and this is higher than the German general population alcohol use disorder rate which is 6.3%. On the other hand, Abdallah et al. (2011) reported lower rates of problematic alcohol use in autistic people (0.7%). Autistic traits are positively associated to regular smoking, cannabis use, nicotine, alcohol or cannabis use disorders, and negatively associated to drinking to intoxication. People with autistic traits are less likely to engage with alcohol, but upon engagement, more likely to develop alcohol dependency (De alwis, 2014).



2 High risk of suicidality, comorbidities such as substance use, financial consequences, relationship problems, legal issues, sleep problems, and high blood pressure and obesity are some of the risk factors and consequences that people with problem gambling or gambling disorder may experience, according to the literature. 343 initial results were identified on PUBMED for gambling and autism search. After abstract/ title and full text screening, we identified 9 studies about gambling and autistic traits. Sample sizes of these studies were relatively small. Most of the studies looked at decision making tasks which are relevant to gambling disorder. Results were highly contradictory.



Studies that compare cognitive task performances of people with ASD and non-ASD control subjects reported that;



Out of 694 publications, 26 papers were included in this review. There were 6 studies reporting on family history of **alcohol use** and its association with autism in offspring. According to those studies, risk of having a child with ASD or ADHD increased if there was family history of alcohol use disorder. On the other hand there was some evidence of no positive associations between low/average levels of maternal alcohol consumption, maternal binge drinking and ASD. According to McLeod et al. (2021) problematic alcohol use prevalence was lower in the young adults with ASD (12.4%) compared to their non-ASD peers (25.4%). When there was a co-occurring condition of ADHD or learning disabilities, the percentage was higher 12.9% (Mangerud et al., 2014).

Case studies demonstrate that, autistic individuals might easily develop an unhealthy relationship with substances and alcohol due to their anxiety and emotional challenges caused by socialisation. Case report suggest that alcohol or substances may be used by some autistic individuals to ease the anxiety caused by socialization, allow them to feeling 'normal' not 'different from others' , and help them to cope with challenging life problems/ emotional problems.



3

CONCLUSIONS

- The literature around substance use, problematic alcohol use, behavioural addictions and autism is limited at the moment
- There are some findings about association between autism and addictions, but very few studies have been replicated
- Autism and addiction definitions, and study samples were highly variable and so was the methods used to measure these variables.
- It is essential to define **what should be the research, clinical and policy priorities in this area.**

Abdallah, M. W., Greaves-Lord, K., Grove, J., Nørgaard-Pedersen, B., Hougaard, D. M., &

Grant, J. E., & Chamberlain, S. R. (2020). Autistic traits in young adults who gamble. *CNS spectrums*, 1-6.

Mortensen, E. L. (2011). Psychiatric comorbidities in autism spectrum disorders: findings from a Danish Historic Birth Cohort. *European child & adolescent psychiatry*, 20(11), 599-601.

Mangerud, W. L., Bjerkeset, O., Holmen, T. L., Lydersen, S., & Indredavik, M. S. (2014). Smoking, alcohol consumption, and drug use among adolescents with psychiatric disorders compared with a population based sample. *Journal of Adolescence*, 37(7), 1189-1199.

McLeod, J. D., Hawbaker, A., & Meanwell, E. (2021). The health of college students on the autism spectrum as compared to their neurotypical peers. *Autism*, 25(3), 719-730.

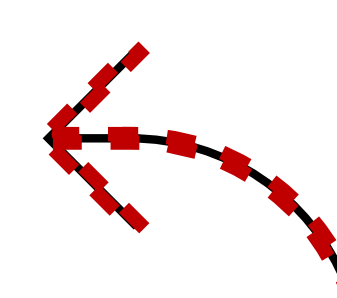
Miles, J. H., Takahashi, T. N., Haber, A., & Hadden, L. (2003). Autism families with a high incidence of alcoholism. *Journal of Autism and Developmental Disorders*, 33(4), 403-415.

Roy, M., Prox-Vagedes, V., D Ohlmeier, M., & Dillo, W. (2015). Beyond childhood: psychiatric comorbidities and social background of adults with Asperger syndrome. *Psychiatri a Danubina*, 27(1), 0-59.

Wu, H. C., White, S., Rees, G., & Burgess, P. W. (2018). Executive function in high-functioning autism: Decision-making consistency as a characteristic gambling behaviour. *Cortex*, 107, 21-36.

REFERENCES

Conflict of interest: We do not work with tobacco, alcohol, electronic cigarettes and gaming companies. This study is funded by the Society for the Study of Addiction <https://www.addiction-ssa.org/> For more information, please email sabaa@soton.ac.uk or follow us @PspSabaa



Use this QR code to go to our survey website and let us know about your questions about addictions in autism!