Alcohol Related Brain Damage

Building the Evidence Base in Wales and Beyond

Dr Darren Quelch, Professor Bev John and Professor Gareth Roderique-Davies



Faculty of Addiction
Psychiatry Conference 2023

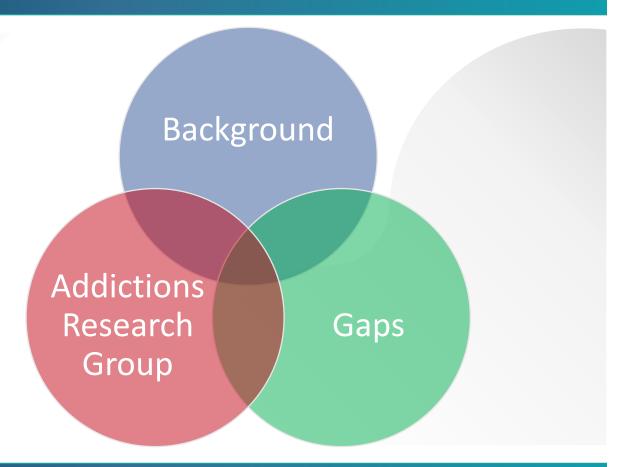
Introduction

Thank you!

Agenda



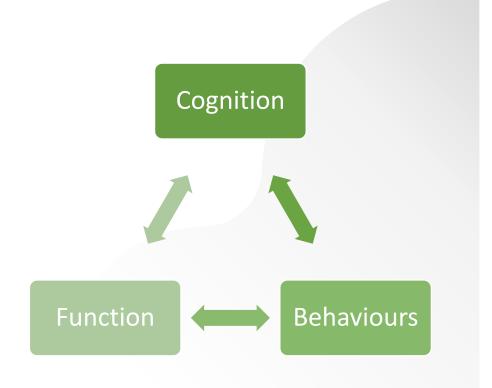
University of South Wales Prifysgol De Cymru



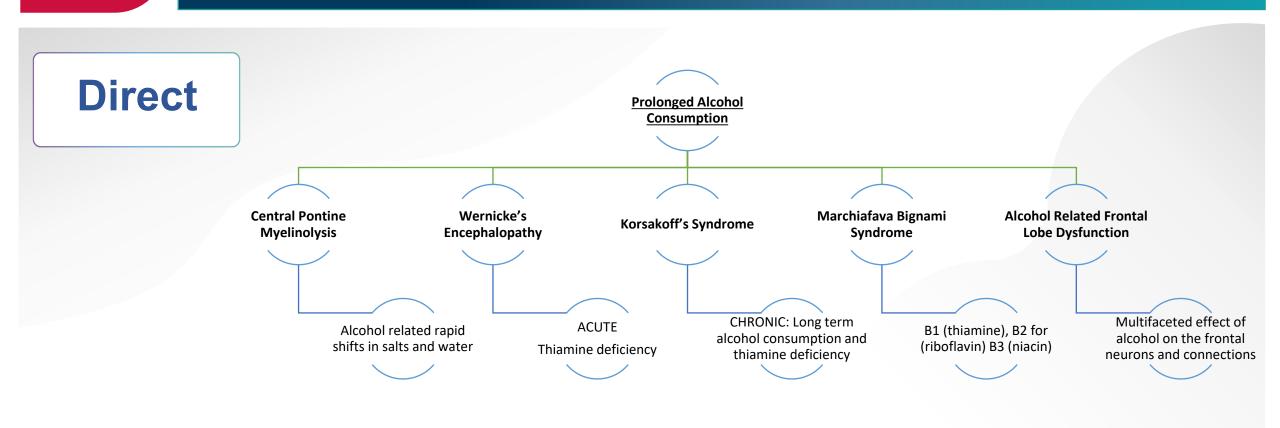
Introduction

ARBD is:

An umbrella term reflecting the direct and indirect effects of alcohol on the brain

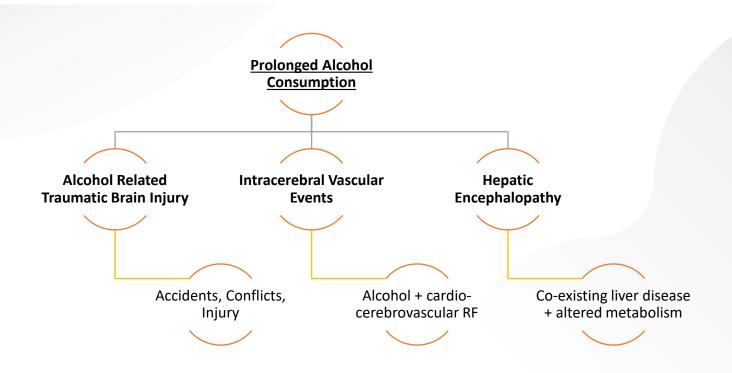


The Umbrella



The Umbrella

Indirect



Who?

- M > F
- 45-65YO
 - However, females tend to be younger
- Socioeconomic status?

Approximately 34 in every 100000

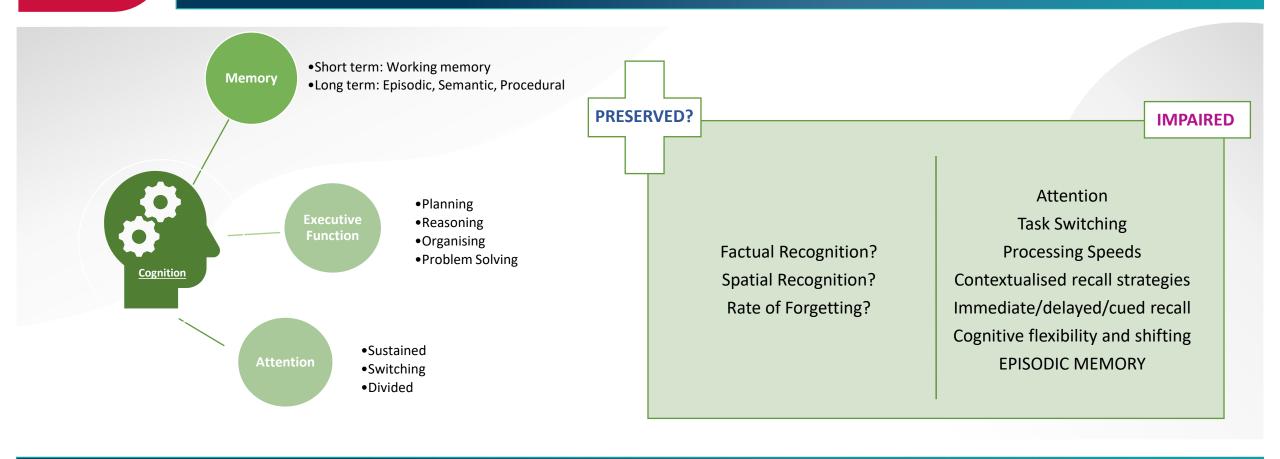




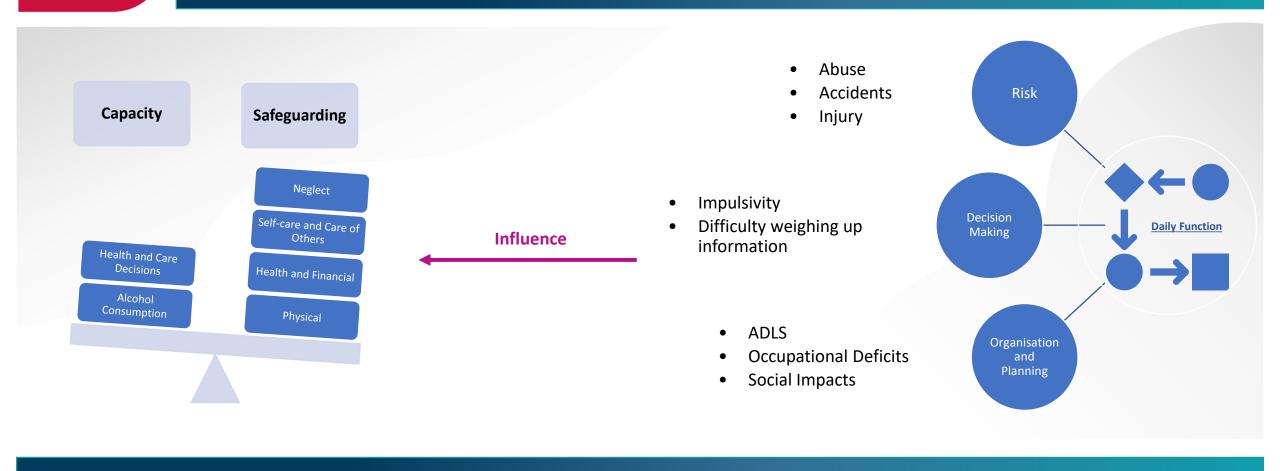
Approximately 2.9-16.3 in every 100000

Gilchrist, G. and Morrison, D.S. (2005) 'Prevalence of alcohol related brain damage among homeless hostel dwellers in Glasgow'. *European Journal of Public Health* 15(6), pp. 587–588. doi: 10.1093/eurpub/cki036; Alcohol Related Hospital Statistics Scotland - Scottish Health and Social Care Open Data (no date). Available at: https://www.opendata.nhs.scot/dataset/alcohol-related-hospital-statistics-scotland (Accessed: 9 February 2023); Heirene, R.M., Roderique-Davies, G., Angelakis, I. and John, B. (2020) 'Alcohol-Related Neurocognitive Disorders: A Naturalistic Study of Nosology and Estimation of Prevalence in South Wales, United Kingdom'. *Journal of Studies on Alcohol and Drugs* 81(5), pp. 584–594. doi: 10.15288/jsad.2020.81.584

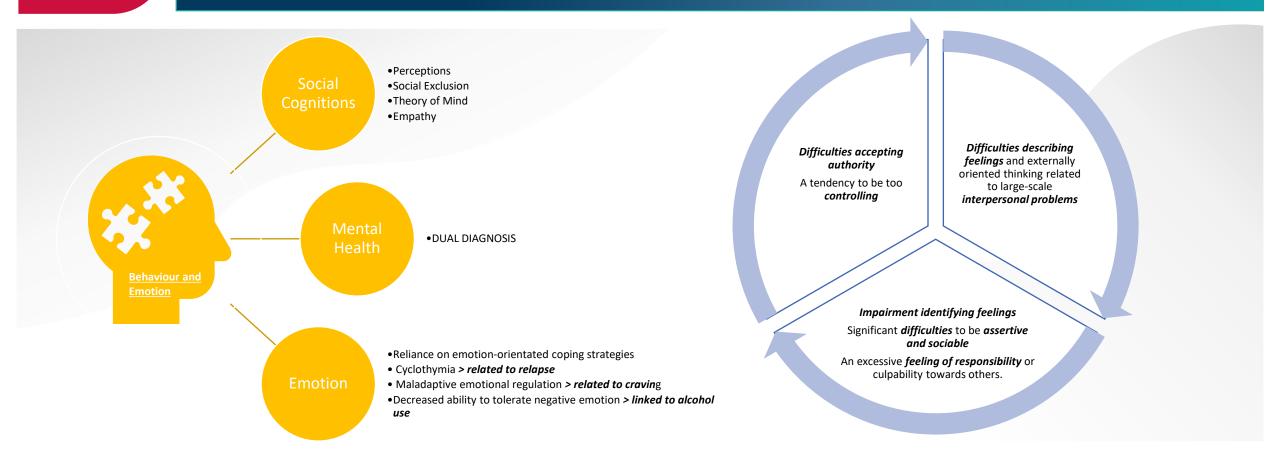
What Impairments?



What Impairments?



What Impairments?



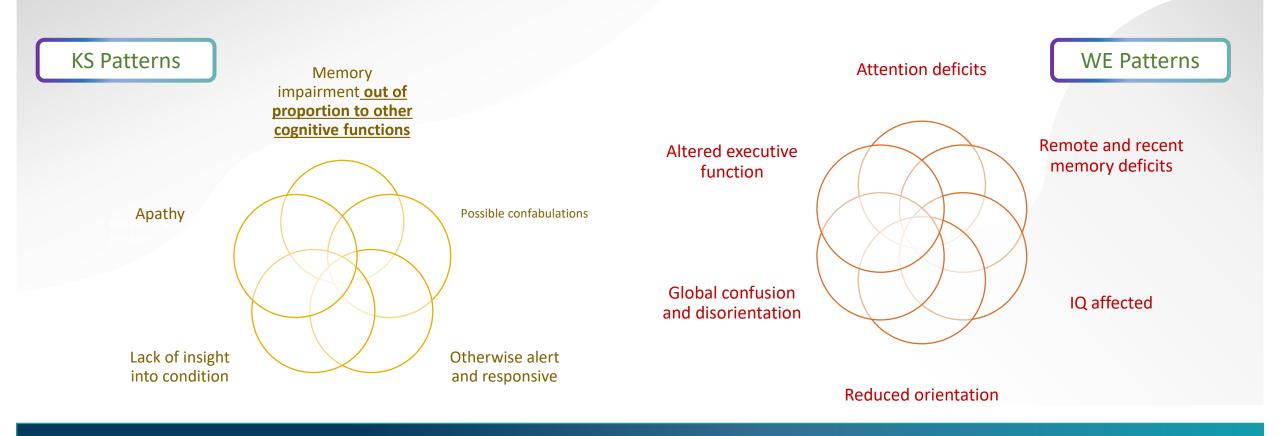
Pierre Maurage, Philippe de Timary, Fabien D'Hondt; Heterogeneity of emotional and interpersonal difficulties in alcohol-dependence: A cluster analytic approach; Journal of Affective Disorders; Volume 217; 2017, pages 163-173; https://doi.org/10.1016/j.jad.2017.04.005.

Maurage, P., D'Hondt, F., de Timary, P., Mary, C., Franck, N. and Peyroux, E. (2016), Dissociating Affective and Cognitive Theory of Mind in Recently Detoxified Alcohol-Dependent Individuals. Alcohol Clin Exp Res, 40: 1926-1934. https://doi.org/10.1111/acce.13155

Maurage, P., Joassin, F., Philippot, P. et al. Disrupted Regulation of Social Exclusion in Alcohol-Dependence: An fMRI Study. Neuropsychopharmacol 37, 2067–2075 (2012).

Paulino, S., Pombo, S., Ismail, F., Figueira, M. L., and Lesch, O. (2017) The role of affective temperament as a predictor of relapse in alcohol dependence. Personality and Mental Health, 11: 278–289. doi: 10.1002/pmh.1373. Petit, G., Luminet, O., Maurage, F., Tecco, J., Lechantre, S., Ferauge, M., Gross, J.J. and de Timary, P. (2015), Emotion Regulation in Alcohol Dependence. Alcohol Clin Exp Res, 39: 2471-2479. https://doi.org/10.1111/acer.12914

Impairments in WKS



Michael D. Kopelman (2022) What is the Korsakoff syndrome? – a paper in tribute to Prof Alwyn Lishman, Cognitive Neuropsychiatry, 27:4, 296-313, DOI: 10.1080/13546805.2022.2067472

Caine D, Halliday GM, Kril JJ, et alOperational criteria for the classification of chronic alcoholics: identification of Wernicke's encephalopathy. Journal of Neurology, Neurosurgery & Psychiatry 1997;62:51-60.

Oudman E, Van der Stigchel S, Postma A, Wijnia JW, Nijboer TC. A Case of Chronic Wernicke's Encephalopathy: A Neuropsychological Study. Front Psychiatry. 2014 May 27;5:59. doi: 10.3389/fpsyt.2014.00059. PMID: 24904442; PMCID: PMC4034510.

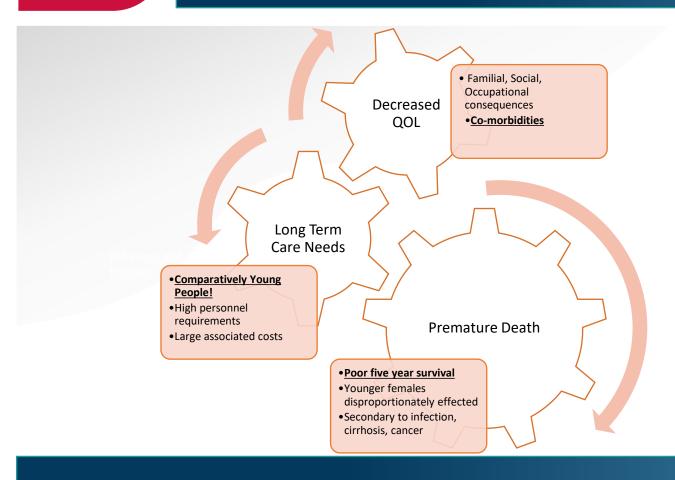
Cycle

Social and Behavioural:
Alcohol consumption as a coping mechanism to overcome isolation, emotions, stigma

Function: Impairments in informed decision making; Consumption through despair and helplessness; not feeling able to live another way

Alcohol Consumption Cognition: Impulsivity, habitual consumption, poor problem solving, poor recall, poor reasoning, attention + impaired motivation to change

Outcomes



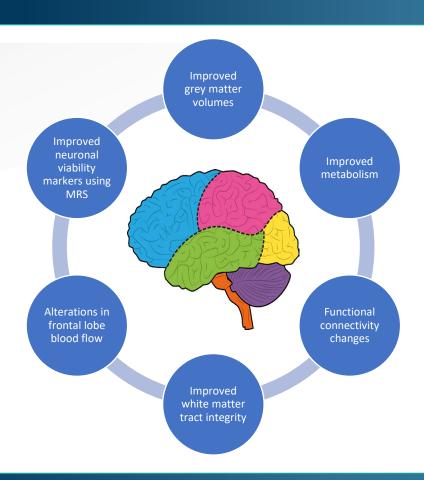
Early Recognition

Prevention

Improvement

Recoverability

Distinguishes
Driving factor for change



Abstinence

Recoverability

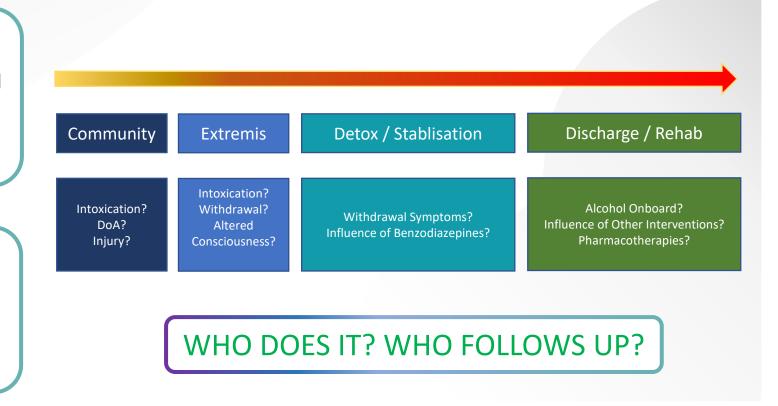


WHAT function(s) get better?
WHO Does best?
HOW do we best promote
recoverability?
HOW do we measure it?

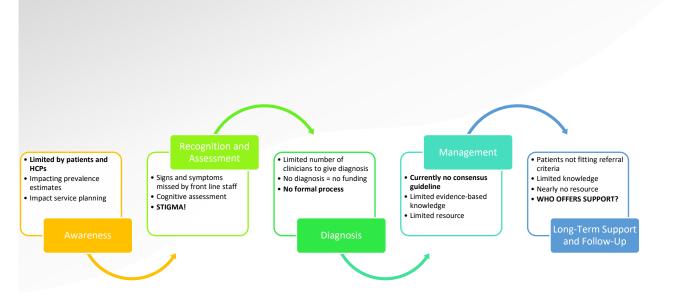
Confounders – Assessment and Management

Lots of data, however relating it back to the person in front of you in clinic or on the ward is complicated by...

What is the baseline measure?
What assessments are
appropriate and when?



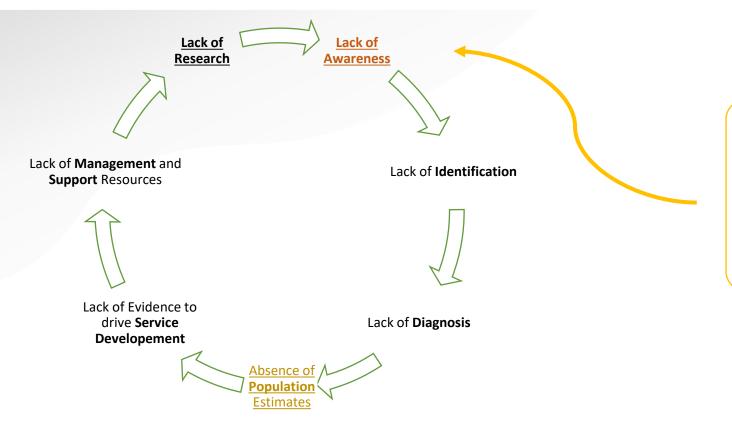
BUT!



The Gaps!

Knowledge and Practice

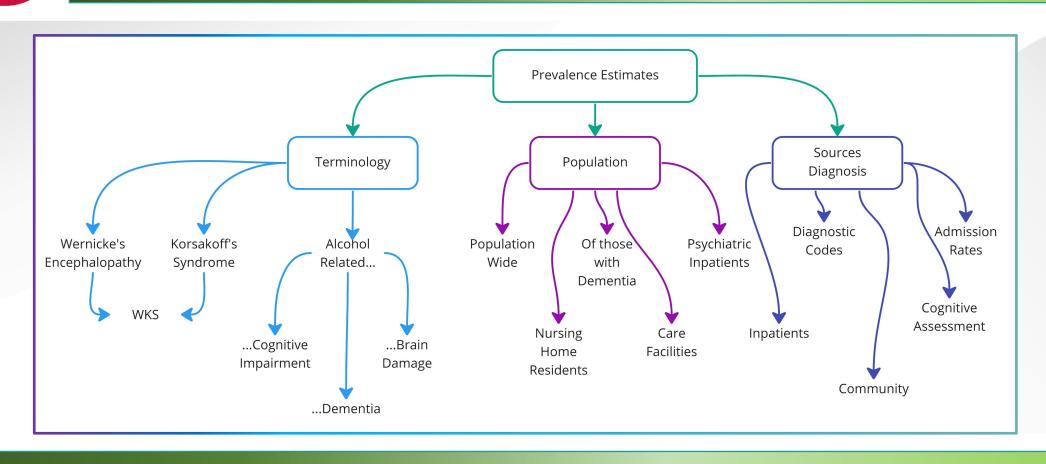
BUT!



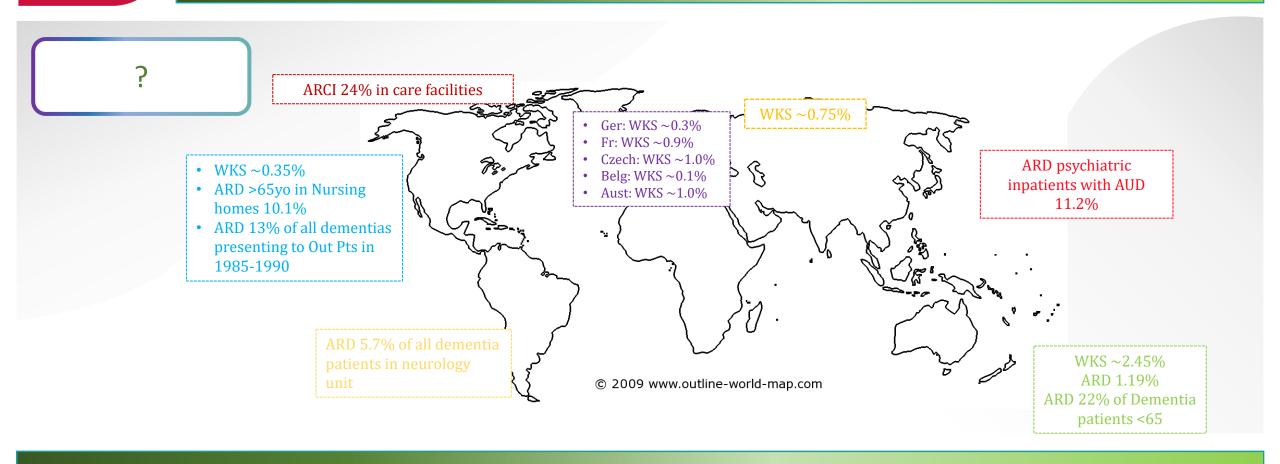
- Limited by patients and HCPs
- Impacting prevalence estimates
- Impact service planning

Awareness

For example...

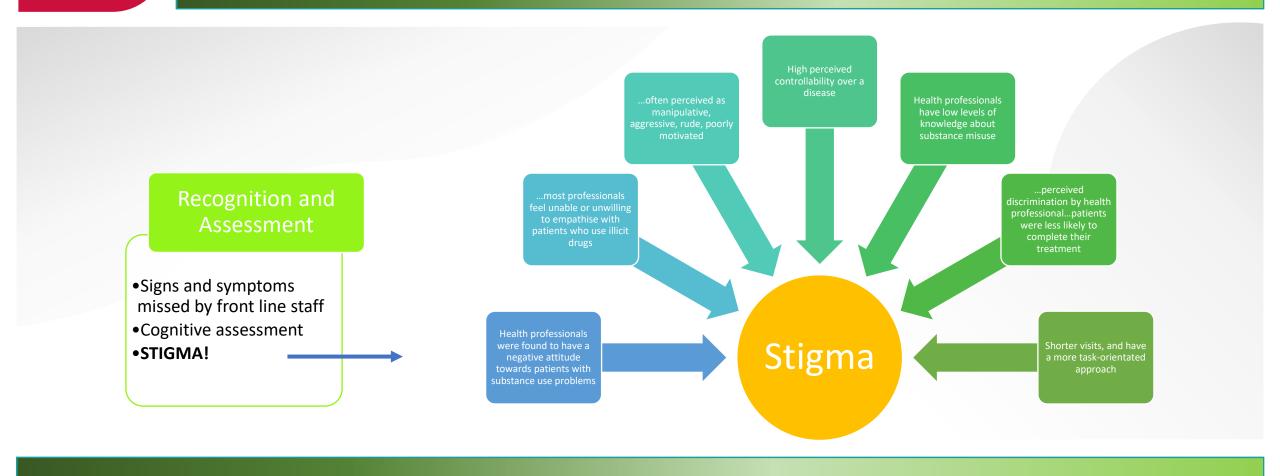


For example...



Clive Harper; Paul Fornes; Charles Duyckaerts; Dominique Lecomte; Jean-Jacques Hauw (1995). *An international perspective on the prevalence of the Wernicke-Korsakoff syndrome.*, 10(1), 17–24. doi:10.1007/bf01991779 Chin Cheng, Chieh-Liang Huang, Chia-Jui Tsai, Po-Han Chou, Chih-Chien Lin, Chin-Kuo Chang, Alcohol-Related Dementia: A Systemic Review of Epidemiological Studies, Psychosomatics, Volume 58, Issue 4, 2017 Alcohol Related Dementia and Brain Damage; Svanberg, J., Withall, A., Draper, B., & Bowden, S. (2014). *Alcohol and the Adult Brain*. Psychology Press.

Gaps



L. C. van Boekel *et al;* Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review; Drug and Alcohol Dependence; Volume 131; 2013 doi: 10.1016/j.drugalcdep.2013.02.018. Epub 2013 Mar 13.

Gaps

- Limited number of clinicians to give diagnosis
- •No diagnosis = no funding
- No formal process

Diagnosis

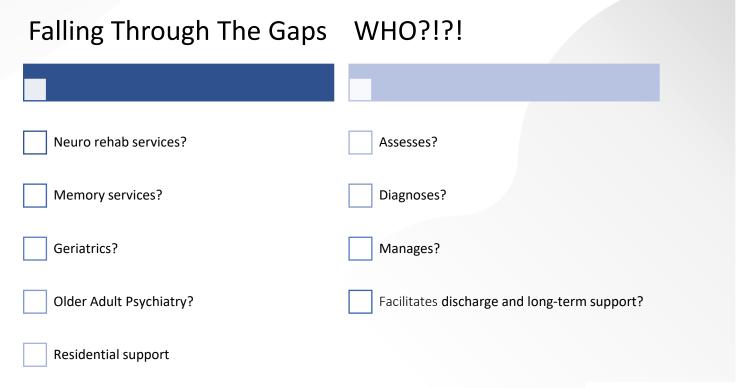
Management

- Currently no consensus guideline... YET!
- •Limited evidence-based knowledge
- Limited resource

Gaps

- Patients not fitting referral criteria
- Limited knowledge
- Very limited resource
- •WHO OFFERS SUPPORT?

Long-Term Support and Follow-Up



https://southwales.onlinesurveys.ac.uk/arbd-support-availability

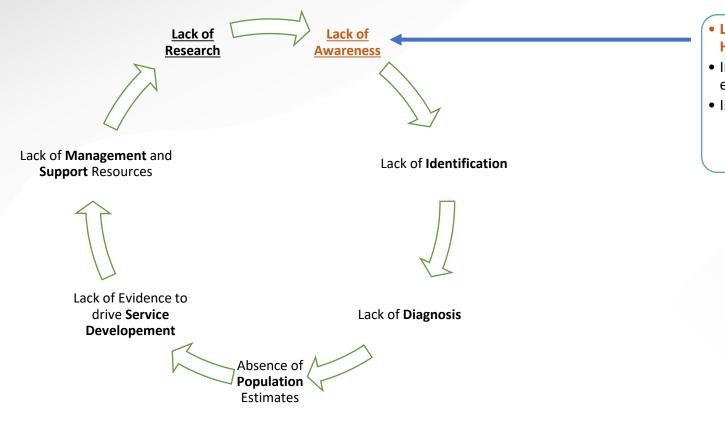


Our Efforts





Starting With Awareness



- Limited by patients and HCPs!
- Impacting prevalence estimates
- Impact service planning

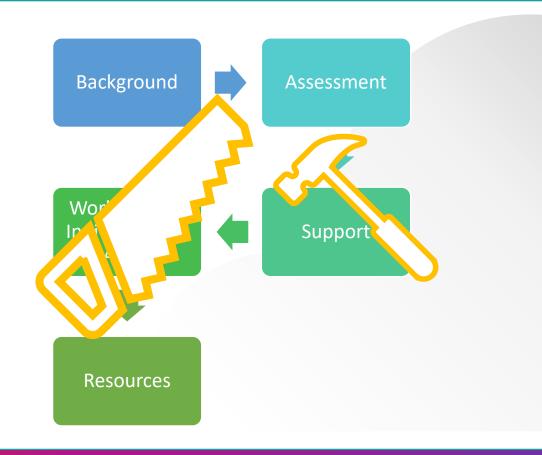
Awareness

Starting With Awareness





A three-tiered training program for Health Care Professionals



Starting With Awareness

Received: 19 January 2022 | Revised: 12 August 2022 | Accepted: 22 August 2022

DDI: 10.1111/dar.13545

ORIGINAL PAPER

Drugand Alsobal ***** WILEY

Alcohol-related brain damage: A mixed-method evaluation of an online awareness-raising programme for frontline care and support practitioners

¹Faculty of Life Sciences and Education, University of South Wales, Pontypridd, UK

²Department of Psychology, Swansea University, Swansea, UK
³College of Health and Human Sciences,

Charles Darwin University, Darwin, Australia

Correspondence

Gareth Roderique-Davies, Faculty of Life Sciences and Education, Treforest Campus, University of South Wales, Pontypridd CF37 1DL, UK. Email: gareth.rdavies@southwales.ac.uk

Funding information Higher Education Funding Council for

Abstrac

Introduction: Alcohol-related brain damage (ARBD) is an umbrella term referring to the neurocognitive impairments caused by excessive and prolonged alcohol use and the associated nutritional deficiencies. This study evaluated the outcomes of an online research-informed training program for ARBD which aimed to improve client outcomes by promoting support staff's awareness and confidence in working with clients who may have (or who are at risk of developing) the condition.

Methods: Staff working within a large non-governmental non-profit housing organisation (n=883) enrolled in the training program. Questionnaires were used pre- and post-training to collect self-reported awareness of ARBD and confidence in supporting individuals with the condition. Semi-structured interviews were conducted with 27 staff members approximately 10 weeks post-completion of the program. Interviews were audio-recorded, transcribed verbatim and analysed by employing qualitative content analysis.

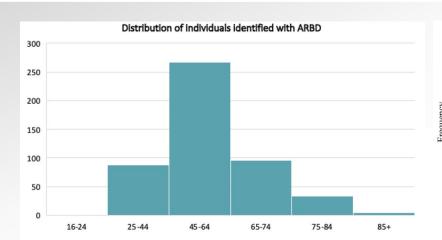
Results: Findings from the questionnaires indicated a significant increase in all measures after completing the training program. Three main themes were developed based on the interview data: changes to awareness and understanding; professional practice; and training-specific characteristics. Participants reported changes in their ability to identify notential service users with ARBD and confidence in doine so.

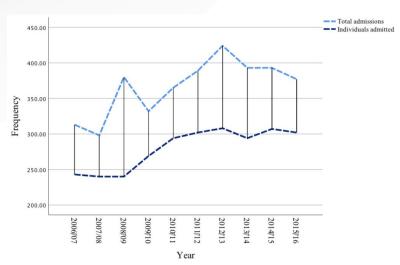
Discussion and Conclusion: Our findings demonstrate that online training programs can be effective in improving support staff's ability to identify ARBD, potentially leading an increase in signposting service users to relevant services. The research-informed nature of the training demonstrates that translating research findings directly to frontline workers can have a substantial impact and may improve outcomes for this client group.

Trialed in a local third sector organisation with promising results!

Improvements observed in Awareness, Understanding, ability to Identify individuals with ARBD and confidence in Supporting those with ARBD

ARBD In Wales









The associated hospital cost for ARBD is an estimated £4,786,851 per year.

The outcomes for those admitted to hospital with ARBD is relatively poor with a mortality rate of 14.3%.

Heirene RM, Roderique-Davies G, Angelakis I, John B. Alcohol-Related Neurocognitive Disorders: A Naturalistic Study of Nosology and Estimation of Prevalence in South Wales, United Kingdom. J Stud Alcohol Drugs. 2020 Sep;81(5):584-594. PMID: 33028471.

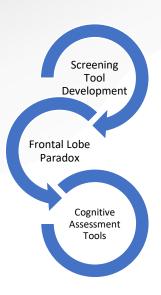
ARBD In Wales



Robert M. Heirene, Bev John, Marie O'Hanrahan, Ioannis Angelakis & Gareth Roderique-Davies (2021) Professional Perspectives on Supporting Those with Alcohol-Related Neurocognitive Disorders: Challenges & Effective Treatment, Alcoholism Treatment Quarterly, 39:3, 301-327, DOI: 10.1080/07347324.2021.1898294

It's Good To Talk

Identification and Knowledge





Service Development

Wider Engagement



It's Good To Talk

We'd like to know about ARBD support available in your area





It's Good To Talk

We'd like to hear from you, as experts and practitioners, about

- Your experiences surrounding this condition
- How you have needed to adapt and change your approaches
- Your awareness and knowledge
- How you foresee implementable services in your area being shaped and deployed?

Thank You!



https://health.research.southwales.ac.uk/about-us/addictions-research/





https://www.gov.wales/sites/default/files/publications/2021-11/substance-misuse-treatment-framework-prevention-diagnosis-treatment-and-support-for-alcohol-related-brain-damage.pdf

gareth.rdavies@southwales.ac.uk bev.john@southwales.ac.uk darren.quelch@southwales.ac.uk