September 2019

# Drinking and Eating

Dr Jacinta Tan and Ms Gemma Johns
Swansea University

# Author details

Ms Gemma Johns, Swansea University
Dr Jacinta Tan, Swansea University

**Contact details**

Gemma Johns
Swansea University
Singleton Park
Swansea
SA2 8PP

Email: Gemma.Johns3@wales.nhs.uk

# Institutional details

Swansea University
Singleton Park
Swansea
SA2 8PP

https://www.swansea.ac.uk

# Acknowledgements

This is a research report commissioned by Alcohol Change UK. It was conducted by Dr Jacinta Tan and Ms Gemma Johns of Swansea University with the kind assistance of Barod which provided the facilities and assisted with recruitment for the focus groups of people with alcohol misuse issues and staff working with them; and Beat which hosted an online survey for people with eating disorders on its website.

The research was conducted with ethical approval from the Swansea University Medical School Research Ethics Committee, RESC Project number: 2018-0019.

Our sincere thanks go to all the participants in the research, particularly the focus groups; Andrew Misell of Alcohol Change UK for his support throughout; the incredibly friendly and helpful staff at Barod; Richard Broadway of Drink Wise Age Well; and Alcohol Change UK and Beat staff.

This report was funded by **Alcohol Change UK**. Alcohol Change UK works to significantly reduce serious alcohol harm in the UK. We create evidence-driven change by working towards five key changes: improved knowledge, better policies and regulation, shifted cultural norms, improved drinking behaviours, and more and better support and treatment.

Find out more at alcoholchange.org.uk.

Opinions and recommendations expressed in this report are those of the authors.

# Contents

# Executive summary

## Introduction

This report provides an overview of the findings from a recent research project exploring the relationship between drinking and eating behaviours. Methods of data collection and analysis included the use of routine clinical data, focus group discussions, and online surveys. The findings demonstrate that there is a clear correlation between alcohol use and eating disorders from the perspective of people with alcohol dependency or misuse, people with eating disorders, and members of staff working in these services. It is recommended that more research is needed in this subject area to gain a deeper understanding of the interaction and links between alcohol use and disordered eating behaviours.

## Background

Alcohol dependency and misuse are characterised as 'drinking excessively' beyond recommendations based on alcohol consumption as measured in units and an eating disorder is defined as 'abnormal eating behaviours' which can involve eating too much or too little. Both disorders can threaten a person's health, wellbeing and even life. A co-occurring relationship between the two can increase a person's risk for significant complications. Research demonstrates a significantly high co-occurrence of alcohol misuse and eating disordered behaviours with co-occurring interactions of the two reported at nearly 50 per cent – a rate of nine times greater than the general population.

## Methods

This research sought to capture a range of experiences from people with alcohol dependency or misuse or people with an eating disorder to explore possible links and relationships between the two. A mixed methods approach using both quantitative and qualitative data collection and analysis was taken for this research using three separate methods including a small exploratory study using a clinical database, focus group discussions, and two online surveys.

## Findings

- Findings demonstrate a clear correlation between GP diagnoses of eating disorders and alcohol dependency, showing a high odds ratio.
- Three themes emerged from discussions with people with alcohol dependency or misuse:
    - Theme 1: No matter the level of severity or stage a person's alcohol misuse, the importance of food and nutrition was relegated to a 'secondary' priority for a variety of reasons.
    - Theme 2: A good relationship with food was embodied with the concept of 'love, care and pleasure' associated with good and caring relationships as opposed to the solitary and isolated relationship with alcohol.

    - Theme 3: Concern about the ‘alcohol wheel’ as triggering those more susceptible to an eating disorder in alcohol services.
- In the two online surveys, it was widely accepted amongst both clinicians and people with eating disorders that there is a clear correlation between alcohol use and eating disorders.

**Implications**

Although the numbers were too small in this research to be sure, it identifies that there are many potential associations between alcohol use and eating behaviours for people who are seen in either eating disorder and alcohol services. Both groups of people appear to be at risk of developing problems in both areas of drinking and eating. Where this comorbidity occurs, there is a raised risk of a range of both physical and psychological health concerns.

**Conclusion**

This research identified some intriguing patterns and associations between eating and drinking behaviours. We suggest that larger-scale, in-depth research is needed to advance understanding in this area to tease out and develop a deeper understanding of the interaction between eating behaviours, eating disorders and alcohol misuse and dependency.

# Section One: Background, aims & methodology

The terms alcohol dependency, misuse or disorder are characterised as 'drinking excessively' beyond recommendations based on alcohol consumption as measured in units, and an eating disorder is defined as 'abnormal eating behaviours' which can involve eating too much or too little[1]. Both disorders can threaten a person's health, wellbeing and even life, therefore a co-occurring relationship between the two can increase a person's risk for significant physical, psychological, social, and financial complications beyond repair[2,3]. Yet, research demonstrates a significantly high co-occurrence of alcohol misuse and eating disordered behaviours[4-6] particularly when observed among patients in alcohol and eating disorder treatment settings[2]. Overall the co-occurring interactions of the two are reported at nearly 50 per cent – a rate of nine times greater than the general population[4].

Research identifies many shared characteristics of both alcohol and eating disorders. For example, they both frequently co-occur in the presence of other psychiatric and personality disorders such as depression, anxiety, low self-esteem, isolation, impulsivity, compulsivity, and obsessive preoccupations, and the risk for suicide[4,5,7].

Nevertheless, there are also significant differences between the two, which are just as important to recognise when exploring the links, particularly when looking at the at-risk population themselves, treatment options and recovery. For example, alcohol and eating disordered behaviours can be seen across all demographics yet the majority of research in this area focuses on younger, college student populations[8]. Furthermore, treatment and recovery are diametrically opposite for the two disorders – in that, for alcohol disorders, the person is expected to restrict or abstain from the alcohol through treatment and into and after recovery, however, in the case of eating disorders, this is quite the opposite, and people are expected to regain a positive relationship with food in both treatment and recovery[2,9].

Therefore, the co-occurring and complex disorders have important implications for assessment, treatment, and research, and we need to know more about these and their interactions in order to know how to assess and treat them efficiently but also realistically. We still know very little about the best way to assess or treat the co-occurring alcohol misuse and eating disorders, either simultaneously, or separately in treatment settings. Further, there is very little conclusive evidence regarding what may be triggering interactions between the two, especially among people in alcohol and eating disorder treatment.

**Aims**

This research sought to explore these unknown areas, by studying a range of participant groups in both eating and alcohol disorder settings, as a way to develop a range of narratives and explanation for interactions.

The aims of the research were:

- To capture a range of experiences and narratives regarding the possible links and relationships between alcohol misuse and eating disorders, from the perspective of people currently (or in the past) being treated for alcohol misuse, people currently (or in the past) being treated for eating disorders, and people working in eating disorder health settings.
- To develop a better understanding of both alcohol misuse and eating disorders, and links and relationships between the two.

## Methodology

A mixed methods approach using both quantitative and qualitative data collection and analysis was taken for this research. The research study used three separate methods to collect this data. This included a small exploratory study (using SAIL data), focus group discussions, and two online surveys.

### SAIL data

The exploratory study explored patterns found in routine clinical data with the Swansea Anonymised Information Linkage (SAIL) Databank, a population database based at Swansea University. This looked at associations between alcohol misuse and any form of diagnoses of disordered eating or eating behaviours; the prevalence of alcohol use and of eating disorders, and at relationships between the two, using control cohorts.

### Focus groups

A focus group study recruited participants from third sector agencies which support and advocate for people who have alcohol issues. The focus groups were run with people who have significantly misused alcohol (and substances), and some members of staff who support them. As part of three separate group discussions, we discussed how their drinking (or substance) related behaviours affects their eating behaviours (now or in the past).

### Online surveys

The online surveys collected descriptive date, with additional narrative boxes provided at the end of each question to allow a more detailed understanding.

The first online survey was aimed at people who have an eating disorder. The second online survey was aimed at people working with people with eating disorders, e.g., clinicians in both Child & adolescent services (CAMHS) and adult services. Both surveys were questions relating to the use of or misuse of alcohol in these settings, with questions about the prevalence of alcohol misuse, the patterns and the interactions between alcohol misuse and eating disorders, and the co-morbidity of the two. Both were hosted by the eating disorder charity website, Beat.

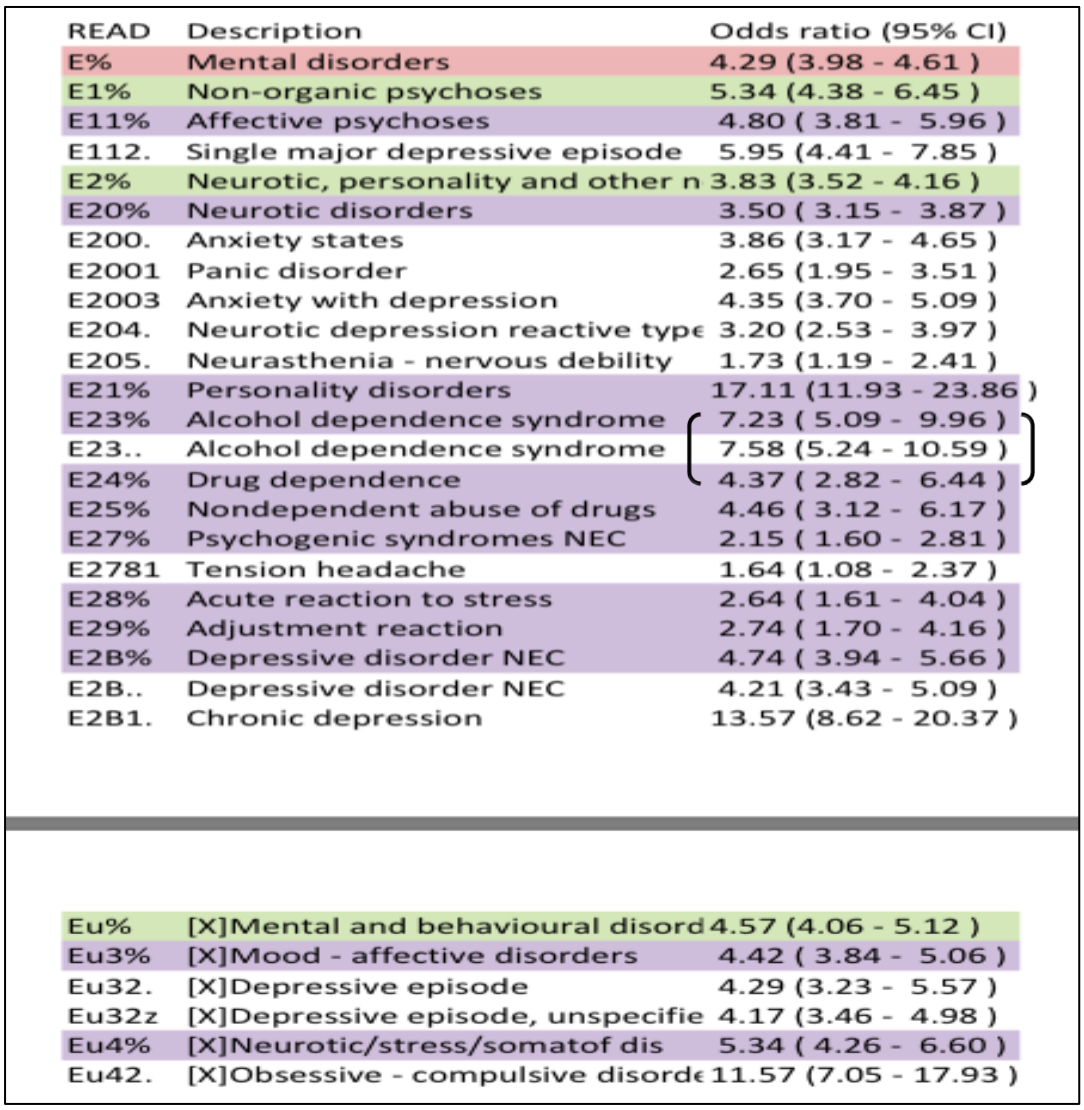
## Analysis of data

The exploratory study was conducted using routine clinical data from SAIL databank, and additional statistical tests were used to explore associations in the data. The focus group discussions were recorded and transcribed. The transcriptions were coded using both an NVIVO package and a manual approach. A thematic approach was taken to explore dominant themes, and from these themes conclusions were drawn. The online surveys were designed and data was gathered via Survey Monkey. The results were then imported to SPSS and Excel. This allowed to the data to be further explored, and tables and graphs to be generated.

# Section Two: Findings from SAIL data

Using routine clinical data, it is possible to explore the relationship between alcohol use and eating disorders. This was done by using an odds ratio calculation of an eating disorder cohort versus controls matched for age and sex in the SAIL database, for all the other mental health diagnoses. As outlined in brackets, you can see that alcohol dependence has a very high odds ratio, meaning that people with eating disorders were very significantly more likely to also have another diagnosis involving alcohol dependence. Therefore, there is a clear correlation between eating disorders and alcohol dependency.

**Figure 1: SAIL data output – odds ratios of GP mental health READ code diagnoses in eating disorder cohort as compared to control cohort.**



| READ | Description | Odds ratio (95% CI) |
|---|---|---|
| E% | Mental disorders | 4.29 (3.98 - 4.61 ) |
| E1% | Non-organic psychoses | 5.34 (4.38 - 6.45 ) |
| E11% | Affective psychoses | 4.80 ( 3.81 - 5.96 ) |
| E112. | Single major depressive episode | 5.95 (4.41 - 7.85 ) |
| E2% | Neurotic, personality and other n | 3.83 (3.52 - 4.16 ) |
| E20% | Neurotic disorders | 3.50 ( 3.15 - 3.87 ) |
| E200. | Anxiety states | 3.86 (3.17 - 4.65 ) |
| E2001 | Panic disorder | 2.65 (1.95 - 3.51 ) |
| E2003 | Anxiety with depression | 4.35 (3.70 - 5.09 ) |
| E204. | Neurotic depression reactive type | 3.20 (2.53 - 3.97 ) |
| E205. | Neurasthenia - nervous debility | 1.73 (1.19 - 2.41 ) |
| E21% | Personality disorders | 17.11 (11.93 - 23.86 ) |
| E23% | Alcohol dependence syndrome | 7.23 ( 5.09 - 9.96 ) |
| E23.. | Alcohol dependence syndrome | 7.58 (5.24 - 10.59 ) |
| E24% | Drug dependence | 4.37 ( 2.82 - 6.44 ) |
| E25% | Nondependent abuse of drugs | 4.46 ( 3.12 - 6.17 ) |
| E27% | Psychogenic syndromes NEC | 2.15 ( 1.60 - 2.81 ) |
| E2781 | Tension headache | 1.64 (1.08 - 2.37 ) |
| E28% | Acute reaction to stress | 2.64 ( 1.61 - 4.04 ) |
| E29% | Adjustment reaction | 2.74 ( 1.70 - 4.16 ) |
| E2B% | Depressive disorder NEC | 4.74 ( 3.94 - 5.66 ) |
| E2B.. | Depressive disorder NEC | 4.21 (3.43 - 5.09 ) |
| E2B1. | Chronic depression | 13.57 (8.62 - 20.37 ) |
| Eu% | [X]Mental and behavioural disord | 4.57 (4.06 - 5.12 ) |
| Eu3% | [X]Mood - affective disorders | 4.42 ( 3.84 - 5.06 ) |
| Eu32. | [X]Depressive episode | 4.29 (3.23 - 5.57 ) |
| Eu32z | [X]Depressive episode, unspecifie | 4.17 (3.46 - 4.98 ) |
| Eu4% | [X]Neurotic/stress/somatof dis | 5.34 ( 4.26 - 6.60 ) |
| Eu42. | [X]Obsessive - compulsive disorde | 11.57 (7.05 - 17.93 ) |

# Section Three: The findings from the focus group discussions

**The participants**

People dependent on or misusing alcohol (and other substances), or recovered, plus members of staff working with people with experience of alcohol and substances.

There were four focus groups. These included:

1. People with alcohol or other substance dependency or misuse, or in early recovery;
2. People who had recovered from substance use and alcohol misuse;
3. People still drinking and misusing substances, but in early recovery and two members of staff (Barod);
4. Members of staff only group (from two different charities Barod/TED).

**One of the most interesting findings throughout all of the analysis in this research project, is that there is no single clear relationship between eating and drinking (alcohol). Instead, there appears to be a wide range of links between eating and drinking – in that, a range of different types of people have experienced a range of different types of problems associated with alcohol use and their eating behaviours.**

> *"There is no rule, there's no one-fits-all"*

> *"Yeah I think that's a pattern with drugs and alcohol, they make you eat in a way that you wouldn't ordinarily eat, or eat at all. It's very similar I think"*

**However, similar to eating disorders, people with alcohol and substance misuse have a wide range of issues and difficulties, and therefore it is not surprising that there is no 'one-size fits all' outcome** (pun intended)**.**

> *"We've got a spectrum … of people we work with, so at the one end is people that are abstinent and not drinking, in the middle you've got what we call or class harmful and hazardous drinkers so they're drinking above the recommended guidelines but there's going to be some impact on their health, and then you've got the dependant drinkers haven't you. And I think the people up that end of the spectrum, they look unwell, they're clearly unwell, they're not eating very well."*

**Theme One: Food is secondary**

The first theme that emerged from the data was that no matter the level of severity or stage a person's level of misuse of alcohol (or other substances), food and nutrition often became a secondary consideration to them and was consequently not prioritised. This did differ between people - some people describe how they just

didn't need or want the food, whereas others said they opted for most convenient (e.g., fast food) meals in order to fuel their bodies – which was unfortunately often an unhealthy choice.

The members of staff working in these areas, described this as:

> *"And I think the more dependant a person becomes on alcohol the less inclined they are to want food, their appetite diminishes, they find it hard to keep food down as well… So, they've nutrient depletion anyway from alcohol, anything that they do put in doesn't benefit them in the same way it would if the alcohol wasn't at that level anyway"*

> *"I would imagine that some dependent drinkers would probably choose to spend more money on alcohol than they would food, and people saving their calories for a binge on the weekend and those types of things occur"*

> *"People have a bit of a binge, you think of a night out and they all go to the kebab shop at the end of the night, I suppose if you're binging then yeah you will eat, but when it's day-in-day-out your life is centred around alcohol, food is secondary"*

> *"Well dependant drinkers will often start their morning with a can [of alcohol] just to function, so it'll be alcohol just to sort of get them through the tremors and stuff like that, so then food is secondary"*

## Reasons why people see food as secondary

Staff believed that people tend to see food as secondary either associated to a lack of energy or appetite, (e.g., the alcohol makes them tired or compresses appetite) or a more conscious economic choice to choose alcohol over food.

> *"I think sometimes they lose their ability … when they're drinking at high levels and they just haven't got the energy or the time or ability to do it. And as we all know, the less you eat your stomach shrinks and I think they get caught in a bit of a cycle then, it's too much trouble to eat"*

> *"It's not one-size-fits-all, but the majority I see if they are drinking excessively their appetite is very poor. That could be a combination like you just said, moneywise they prefer to spend it on alcohol, but a big thing we look at, is the amount of calories in alcohol, they're empty calories but are they filling them up? Of course, no nutrition from it, so I think it could be a bit of both, it's just often no appetite and then as they're reducing and especially when we see them coming out of detox they're really over the moon, "Oh yeah I had a bacon butty this morning," so their appetite is coming back. … We see it really often don't we, it's no appetite, it's one of the questions on our forms, how is your eating, and nine times out of ten it's all "Oh I've got no appetite," it is a big thing around it".*

People who are experiencing this association first-hand, such as those currently dependent on or misusing alcohol, or in recovery, identified a range of reasons why

they felt they didn't eat, or consciously choose not to eat when under the influence of alcohol (or for some, substances).

They describe how they 'couldn't eat';

> *"I get hungry, don't get me wrong, I do get hungry but your body … there's no rhythm, and now I think … my body doesn't really know what to do with regular eating you know"*

> *"I had alcohol issues for ten years before I had heroin problems, but I've always been an alcohol user as well. When I'd had a drink I just felt empty. Food wasn't something that I wanted, I just felt sick all the time"*

Or physically and mentally, they said they just 'didn't want to' eat;

> *"When it comes to eating though as well… the more I drink the less I want to eat, I've just no appetite. So more often than not when I stop drinking that's when my appetite comes back"*

> *"And it's like well I know, I'll have a drink and then I'll have something to eat, and it never happens. Once you start that drinking again the hunger pains, pains where you think oh you're starving, just gone. And you just go with it. That's what it is, it's a routine"*

> *"I'm not, not eating, I'm like feeling horrendous and don't want to eat…"*

> *"… so, the drinking was cutting down, I was taking vitamins but I still didn't feel that I wanted to eat. And then all the time they were small dishes and then a little bit bigger and a little bit bigger. [But] I'm still not eating to the extent that I used to"*

> *"I think you lose the motivation to want to, like. Whatever you're dependent on is feeding you, that's sustaining you rather than food isn't it. I didn't get anything from eating"*

> *"I just stopped... I didn't want to eat. Mentally the drink was my food, that was my food"*

> *"No, I mean in my case when I did start reducing I'd pick at my food because I still had no appetite, my appetite had gone completely. And it wasn't that I was now reliant on the alcohol, because I did cut back in the very beginning and start getting right back down, but there was no appetite and even though I wasn't drinking it still took me a couple of months to actually start [eating]. But they were small meals"*

For others, food was just a less important part of their daily life, and they often forgot to eat:

> *"… you forget to eat… Because food becomes secondary and it's like you eat things and you forget about food and you forget about the taste of food and you forget about everything, you just chuck it down you because you need some fuel and that is it. You just carry on surviving."*

Some found food less appealing:

> *"When I was in my worst place with alcohol it basically became my life. I cook, and I've always cooked and stuff like that, but I think it was more of it became a way of life for me, I'd rather drink than eat."*

> *"It does, doesn't it, it tastes like cardboard … but you don't ever get that pleasure of eating again because it's still like, urgh, you know?"*

> *"Well for me personally, what I found different was it didn't taste the same, and it's probably the same that I've eaten over the years, nothing's changed, it's only me that's changed. It didn't taste the same. Or I could sit in a room and wait until my wife went out and it'd be straight in the bin."*

> *"The smell of stuff turned me as well."*

And some found it a chore to eat:

> *"And my relationship with food was quite unhealthy, I suppose it's getting better, but something goes on in your psyche where you're not--, food becomes something--, whereas I think a lot of people enjoy their meals, it becomes a bit of a chore I think."*

> *"I'd drink and I wouldn't eat because I couldn't be bothered. And that became my lifestyle… This is my life and it's a routine that you get into… Some days I'd have a drink, wouldn't want to eat, and drink more. And it became such a situation."*

Food was just something people felt that they just had to do to fuel their bodies to survive.

> *"I think with me it's like medicine is my food and food becomes once a day like."*

> *"But I've still got a very odd relationship with food, I'll eat breakfast because I know I have to otherwise I'll be ill all day. I'll kind of coast then until tea time and was like nine or ten o'clock before I ate last night."*

> *"I think a lot of us like to rather than comfort eat, [we] comfort drink."*

Whereas for others, eating patterns just tended to change when they drank alcohol:

*"I find I'm more hungry during the night than I am during the day."*

*"I wake up like most nights, that's one time I am starving."*

*"I regularly find myself in the kitchen looking for something sweet about four in the morning."*

For some, cost and convenience were contributing factors, because they would weigh up and prioritise drinking over eating:

*"And sometimes if you spend all your money on drink sometimes you can't afford to buy food."*

*"You will just grab either this or that, you know whatever, because you've spent your money on whatever."*

*"Food shopping's still painful. It's weird isn't it, it's the one thing that you shouldn't feel bad for."*

*"Yeah, if I go and spend £40 I'm like in pain, proper pain like."*

*"Yeah, that's the thing, it's not like I'm lacking an appetite but I probably won't go and spend money on food."*

For some, choices between food types were made based on financial resources:

*"I'm eating healthier, but you buy in healthy stuff and it costs more but then you eat it all as you don't want to waste it."*

*"… it's so bloody expensive so you're like nah I won't bother eating because that fiver could be the difference between feeling ill tomorrow morning or having enough drugs to get through that four hours in the morning or whatever."*

Others even lacked the facilities needed to cook healthy meals for themselves:

*"I've never used a kitchen, a microwave."*

*"I am eating a bit healthier… I'm blessed to have a cooker, like I really appreciate having a kitchen because I didn't have one for years, so having a kitchen, it's nice like, it is nice."*

Whereas for some, unhealthy options were just associated with convenience:

*"Food was not on the agenda at all through the day until I really had to eat… and I'd get to that certain point when I knew that I needed something to eat… It would be carbs mainly… and fat… I'd go for the more fatty foods. So, a large bag of chips."*

*"It's just convenient. Convenience it was for me personally, yeah."*

*"I think it was a bit of both (cost and convenience) for me really. But yeah, you just tend to go for what's there."*

## Risk factors

The staff working with people who experience alcohol (and other substances) dependency and misuse believed there are specific risk factors that make certain people more prone to difficulties with eating – in particular, low socioeconomic status and older age.

Age:

*"A lot of our clients do live alone, especially older adults."*

*"The older adults in lots of ways are no different to the younger adults, but they are more prone to those life transitions and more likely to suffer a loss, a bereavement, redundancy, retirement et cetera, children flying the nest, all those things that we know trigger more drinking. So, you get sometimes late onset drinkers who perhaps haven't had an issue with alcohol until later life."*

*"Definitely the life changes that begin to happen as you get older, the children leaving home, going to university, getting their own families, changes in the marital home, that kind of thing. But we spend a lot of our life going through school learning how we're going to be doing a job for the next however many years but there's no resources in learning how to cope when that finishes at the other end, so it's suddenly everything that's been what makes your identity is gone and a lot of people don't have the resources to be able to fill that with something productive that works well."*

*"And that could be somewhere where the food links into it... they can't get out, they can't access things, they're maybe not able to go shopping. That's food for thought, if you like. A lot of them are not internet savvy …and some of them haven't got family … And that's all part of it I think, when we take a closer look at eating and alcohol, is accessibility as well as the calories I think as to why it's a problem."*

*"The age group that we work with… particularly men who have been out working and stuff just don't know what to do in the kitchen."*

*"Everything that has been who you are suddenly changes."*

*"And possibly less likely to be picked up as well as an issue or to access and seek support as well."*

Sociodemographic status:

*"There's a lot of links with substance users around here (Cwm Taf), whereas maybe a higher economic group wouldn't necessarily use drugs."*

*"There's an alcohol paradox because you get… in Cwm Taf … high rates of hospital admissions and alcohol related deaths and poverty… loss of industry."*

*"Yeah, the health and wellbeing is much elevated from the lower."*

*"But then you go to somewhere like maybe an affluent area like Abergavenny for example, there are potentially more drinkers there, more being drunk by your professionals who are going home and having that glass of wine but they don't seem to suffer the other health problems that may be deprived areas do so they don't tend to present it."*

*"But we get referrals from professionals, so we'd have teachers, ex-teachers, ex-professionals, academics, so it's not unusual to see those."*

*"But then perhaps because they've got that structure we were talking about earlier… they (more affluent people) are functioning."*

*"The richer, the better-quality food that people are able to have and the better quality to health services as well that they can access and other things, whereas those at the lower end their diets probably haven't been as good from the beginning so their health outlook, the amount of years they have left are lower and so the alcohol impacts at a much higher rate than those that are drinking more than them at the other end of the scale."*

*"…you have your 50 to 70-year olds that are still professionals working, right up then to elderly and frail. So it's huge, so when we say over 50s it's not a narrow group… But then we've found there's a lot of stigma in alcohol use but also in older adults, so it's a double whammy… . And there's sometimes a cut off in services up to an age, so some of the sort of rehab or detox services, more in England than Wales, they will cut off at say 55… Yeah, so policy provision is not geared towards older adults."*

*"So there needs to be more specialised services for older adults keeping in mobility and social isolation, and some older adults are not driving any more even if they've driven all their life and can't get to that appointment in a clinical setting, they need somebody to come to them, and they can't climb stairs. That's not considered by many."*

**Theme 2: Forming a relationship with food**

The second theme that emerged from the data was about the relationships people have with food and drink. This section looks at how relationships with food are often dependent on other relationships people have in their daily lives. For example, food itself, when prepared with love and care from somebody else tended to produce a different type of pleasure beyond that of the typical eating for the purpose of fuelling the body, or eating purely for convenience. Furthermore, the 'preparation' of any type of ritual (or addiction) can play a significant part in its permanent structure in people's daily lives.

For people with experience of alcohol misuse, drinking is described as a form of self-harm:

> *"And is drink a form of self-harm as well?"*
>
> *"And eating too much or not eating enough, yeah."*
>
> *"You're punishing yourself somehow aren't you?"*
>
> *"It's about your core beliefs… I mean believing you're not worthy and that."*

But when asked, 'what would be helpful', in relation to eating better, the responses were associated to feeling worthy, cared for, and a having a nurturing relationship with people, and the association this has with food:

> *"Somebody making food for me. If somebody put a meal in front of me."*
>
> *"Yeah, for many reasons, one because somebody made the effort and it'd be rude not to try; two because if food is made for you, it always tastes better."*
>
> *"Yeah, I kind of know all these things but applying that it different. If somebody sat me down at six o'clock every day and put a meal in front of me I would love it, you know, but that's just not the way."*
>
> *"I don't, when I'm alone I don't eat nothing but socially I can eat."*
>
> *"Just the fact if somebody's making me food it's probably triggering something in me that's thinking they obviously feel I need to eat even if I don't."*
>
> *"I think sometimes giving somebody a meal is a bit more than just feeding them. Like for a lot of people it's a way of like connecting with somebody… So, I think people in my life have maybe managed to corner me for like half an hour as well, it's like put food in front of me and sit down and eat and we can have a conversation at the same time."*

From the perspective of the staff:

> *"…it is getting back into a routine but also if you're not in a relationship or you lack that sort of social network, getting back into eating meals isn't easy, so there's probably a big link there isn't it, if they were saying they haven't got anyone to eat with then it's that, whereas if their mum was to make them a meal they'd be happy to go and have it."*

**"The preparation is half the pleasure"**

A person in early recovery for alcohol dependency described how the 'preparation' of his alcohol purchases had more significance in his addiction and ritual than then drinking itself.

> *"… I used to work like a lunatic and then stop, finished work for the day, get home and it used to be a kind of ritual to get wine out, get the glass out and*

*just... whoa. And then it used to be from one bottle to two bottles to three bottles to three and a half bottles, and I used to be smashed and I won't feed myself and then I'll go to sleep. And still forget to eat, still forget to eat through the day, and then think about the alcohol. Six o'clock used to kick in, finish work, back home, do the preparation again. Probably the same as any user of anything, any addiction. The preparation is half of the pleasure of doing it."*

*"Yeah, that's the same thing, you've got to buy that bottle of wine, that feeling you get is the same buzz I would get ringing my dealer. And it was the anticipation and that, and plus even though you could afford to buy the loads of wine to leave in the house, it was a case of going to buy it was part of the ritual. Going to buy it was part of the ritual to get it going."*

*"What I found, I used to run down so quickly I built up like a tolerance to it. So, what I did, I broke the association between the pint glass and I after that I drank a lot less, because I broke the association with the pint. It was only a half glass in my hand, that's what I went to the pub for because it was a nice glass and I liked the feel of it. It was a Stella glass, you know the shape of it? So, it was the association. The self-medication and the associations with the glass, not so much the drink."*

And this was felt to be linked with other types of addiction, such as smoking cigarettes:

*"It's like me with cigarettes, I hold them for hours and hours because I'm trying to quit, because I know it's more about having a fag in my hand than it is nicotine. Try holding a fag for a bit."*

### Fill the void

People who had recovered from alcohol misuse and substance use said that adopting a new routine or daily preparation could help fill an unhealthy void.

*"Well when you're stripped…, you're taking away something that you're doing every day, so you've got to fill the void. So, you're looking at hobbies and basic things you know, and just cracking on with your life basically, but with cracking on with your life what comes alongside that is like right let's eat healthily again. So, if I'm making myself feel better, I want to feel better so I've done the hardest part so along comes life again, you want to feel better, so that's why I personally think I really looked into nutrition and eating healthier. Yeah, it's all good."*

*"Yeah, … about filling the void … get back to the person that you once were, or better yourself again. Food does play a big part in that, it does play a huge part in that."*

*"… I wake up and I have breakfast, something before lunch, I have lunch, make sure I have tea, and maybe a light snack after. That wasn't happening years ago."*

*"Now, today, I'm conscious of my diet, I'm eating very healthily and I eat as often as possible. I wake up and I have breakfast now. Go back three or four years ago, that wouldn't happen. So I'm really concentrating on just eating healthy foods and a healthy lifestyle."*

*"Yeah, I am as well these days, I eat a lot of salmon, a lot of oily fish."*

*"So it's making a conscious effort of just a healthy lifestyle."*

*"I just find it comes hand in hand, if you eat healthy you live healthy."*

*"The healthier food that I'm eating, I actually feel a lot more healthy. Like giving up white bread, I don't feel so weighed down."*

**Theme 3: Calories and eating disorders**

The calories in alcohol, and the drinking 'Wheel'. Making a conscious decision what to drink, but can this impact what to eat too?

The staff describe a 'wheel' that they use to show people the amount of calories that are in different types of drinks.

"*We have this wheel… showing people the calories in each specific drink, and what we find I think more and more is women in particular will come up and go, "Well gin has the least calories doesn't it?" And … marketing around gin at the moment is huge, currently there's a whole load of new gins that are flavoured with sweets as well so they're marketing to a younger audience as well."*

*"Yeah, we do little games, interactive games, so how many calories are in a pina colada for example. 600 plus. Equivalent to a cheeseburger."*

*"Not that many people have a pina colada on a daily basis either. And when that's shown, because that is one that we show quite a lot on stalls I think and people go, "I don't like that anyway, I want the gin!"*

*"But you can see people's mindset, "I'll have the gin," "I'll have the white spirits because they're less calories."*

*"… you can see them calculating how many they can have to replace having a meal."*

*"But gin is minimal."*

Some people, such as for binge drinkers, were inclined to over-indulge in food as well as drink. The approach of teaching people to count the calories of alcohol was potentially less helpful in encouraging others to eat alongside their drinking. People who might be inclined to count calories, unfortunately, sometimes opted for one or the other (that is, skipping food in order to compensate for the calories in alcohol).

However, missing meals to drink alcohol is likely to exacerbate the impact of alcohol on their health and wellbeing.

People experiencing alcohol dependency reported replacing their meals with alcohol. Some had been misinformed that calories are calories (wherever they come from), and this rationale helped them justify why they did not need to eat.

> *"… you read a lot and you hear a lot about you're getting calories off the drinking so it doesn't really bother you because you're thinking you're getting what you need out of it. With alcohol you're going oh I'm getting calories from that so."*
>
> *"Yeah, you get sugar in alcohol don't you"*
>
> *"So, I can crack on and I can have this bottle because I'm going to make up for what I'm not eating with the calories I'm getting from that."*
>
> *"The way I see it is if I eat I put on weight, when I drink I lose weight. I try to see a bit of a healthy balance in it."*

We asked the staff, how often they see eating disorders among their clients.

### Binge eating – do you see it?

> *"You hear about people obviously binging on alcohol and drinking to oblivion don't we, that's fairly normal, but not so much eating."*
>
> *"I have seen a pattern with quite a few clients saying they'd had breakfast and they had dinner…but it's quite an achievement when I've come across it, they've been proud of themselves."*

### Eating disorders – do you see them?

> *"I haven't come across it, but that made me think a lot of people self-medicate don't they, so have they got an eating problem and then use alcohol to try and take it away…"*
>
> *"…but we just see people who are not looking after themselves… in terms of exercise, probably eating, unhealthy patterns which would include the drinking. I think that's what we see a lot of, so they're not engaging with other adults, they're perhaps becoming isolated, they've got poor relationships. So, whether that's disordered eating, maybe they're not having set meals at a set time and sat at a table and so on, maybe they're not doing their cooking as you mentioned earlier, they're not cooking for themselves, they're taking short cuts."*

However, when looking at the data, there are some signs that indicate that there may in fact be more people than is known to alcohol services, who are both alcohol dependent and suffer from an eating disorder or disordered eating behaviours.

> *"It took me a while to sort of start eating after stopping drinking. But now, it's like it's strange… I don't want to put the weight on because practically all my*

*life was, like I say, with the drinking even like when I was in work I'd have a can of Coke rather than have food, but that's probably the issues that I've had nearly all my life anyway … so I was upset more in a way when I gave up the drinking if you can see what I mean, because that obviously was one of the things that was stopping me from eating anyway so now it's just a constant sort of battle not to eat everything."*

*"You just don't eat, you just constantly drink. It was getting to the stage I'd go perhaps nearly a week and perhaps I'd have a packet of crisps or something, in the end you were just so violently sick because there's nothing in you. And again … you go a day then without the drinking and then you start tending to pick at little bits of food. But I did suffer with eating disorders earlier on in my life… yeah, I mean we're talking over 25 years really but when I sort of in my head sorted out the eating disorder problem then the drinking seemed to sort of take over that, so there's always been something really."*

*"I'm a secret eater as well, so I will eat with my friend and then go home and eat on my own."*

*"Yeah, I've had bulimia… for 5 years."*

*"My problem is I'm a binge drinker so I'll drink a lot in calories but then I crave a lot of like burgers and all rubbish, so that's why I chuck the weight on because I'm in bed for the day then because I'm recovering, so I don't lose weight I put it on."*

*"Body dysmorphia, it doesn't matter what anybody else sees in you, you don't like yourself."*

*"I'm disliking myself, I'm really disliking myself and I think that's probably why I self-medicate."*

*"I'm trying to eat healthy, I don't eat meat, I try and eat as little dairy as I can. I'm not hyper-strict in any way, shape or form, I just try and be as healthy as I can but I just don't seem to be able to snap into that healthy big breakfast, snack at lunch or meal at lunchtime and snack in the evening, I just don't know what it is. I don't know if I'll ever get to that point where I'll be able to eat three meals a day."*

*"Well I went into hospital last October… I knew that I was either going to starve myself to death or was going to attempt to take my life, but was already in the throes of not eating for a long time… The psychiatrist that I saw there said that it was control because of what I'd gone through and so I was controlling an aspect of my life that I could control… it's not something like--, it's not--, like when she said it's like you're controlling, yeah you're controlling it but it's not something you're in control of."*

*"I've trained all my life so I can hide it through my training, I can hide it in my diet, through my exercise, and I can manipulate it that way so other people don't notice."*

*"At the end of the day, people who have got an addiction, we know how to hide it better than anybody else. My addiction was drink, I'd hide stuff all over the house… So, if my wife was cooking dinner, "Do you want something?" "Oh no, I had something to eat earlier." No I hadn't… She'd be like, "Have you eaten today?" "Yeah, yeah I've eaten today, I'm okay thank you." … It's just a routine that I got myself into. I knew the weight was dropping off me left right and centre, but then to get over that fact of hiding stuff again I'd probably end up putting three jumpers on, I'd be sweltering, or I wouldn't wear jeans because I knew it would show, that's why I had baggy trousers and tracksuit bottoms, just hiding that thing again… Thinking about it now, where I am at this point, I was embarrassed. But at the time I didn't see it as an embarrassment."*

*"Well it was the complete opposite for me because I didn't want it hidden, I wanted--, I said to you yesterday didn't I, I think when I started looking at it in myself I wanted people to notice how much I was struggling outwardly, inside. And it wasn't until people then would notice, like "Oh god you've lost a lot of weight" or whatever, I was like oh finally someone's actually seeing I'm struggling."*

*"Yeah, so I don't know. But I guess whenever I've tried to give up I have focused on diet and exercise more so. But then that's a good thing, I think that's a healthy thing."*

*"The control, yeah. It's like the one thing in your life you can control."*

"*I didn't want to die, I just didn't know how to live and cope … So, the eating and that became like a coping mechanism I guess."*

*"As far as the relationship goes, it's similar because if you use a lot of substance no matter what it is… you're not eating and when you are eating … you eat just for the sake of the fuel to stop yourself from maybe being sick or just line your stomach for a bit, and that'll go on for however long you're in that cycle. And then when you break the cycle you're left with you're either overweight or underweight."*

*"When I was using cannabis and using cocaine, well when using that it makes you overeat and I was just eating all rubbish and late at night, and when I had the cocaine I'd be eating less, on Sundays I'd eat nothing at all. … I know how I felt after I'd binged after smoking cannabis, I would feel really fat and I'd the next night I'd just do a lot of cocaine and I wouldn't eat anything at all to try and make up for it."*

*"I would presume you could be at quite a high risk of developing an eating disorder because you need that instant gratification and food, and that is so common, that people start getting into recovery but transfer their dependence onto something else."*

# Section Four: Findings from the online survey of the views of eating disorder clinicians

**A total of 17 eating disorder clinicians took part in the online survey. Below are the results.** Please note that owing to the very small numbers, statistical analysis was not possible.

### Summary of participants

| Gender | |
|---|---|
| Female | 82.3% |
| Male | 17.6% |

**Table 1: Gender of participants.**

| Age | |
|---|---|
| 18-24 years | 5.8% |
| 25-34 years | 11.7% |
| 35-44 years | 23.5% |
| 45-54 years | 29.4% |
| 55-64 years | 29.4% |

**Table 2: Age of participants.**

| Types of Service [they work in now] | |
|---|---|
| Tier 1 | 6.2% |
| Tier 2 | 12.5% |
| Tier 3 | 50% |
| Tier 4 | 6.2% |
| Eating Disorders | 75% |
| Mental Health | 25% |
| CAMHS | 25% |
| Adult services | 43.7% |

**Table 3: Types of service participants work in.**

| Types of Eating Disorders [they see in their job] | |
|---|---|
| Anorexia Nervosa | 100% |
| Bulimia Nervosa | 81.2% |
| Binge Eating Disorder | 50% |
| Avoidant/Restrictive Food Intake Disorder | 62.5% |
| Atypical/Other | 62.5% |

**Table 4: Types of ED observed by participants.**

| Do you think eating disorders and alcohol use or misuse are connected in any way? | |
|---|---|
| Yes | 68.75% |
| No | 0% |
| Not Sure | 31.25% |

**Table 5: Participants' response to possibility of eating disorders and alcohol use or misuse connection.**

If you do see a connection, in what way?

| If so, in what ways? | |
|---|---|
| The alcohol misuse is a way of coping with emotions as eating disorders also are | 80% |
| The alcohol misuse is a way of coping with the eating disorder | 46.6% |
| The alcohol misuse is a manifestation of the eating disorder – for example, binging or loss of control | 46.6% |
| They are simply often co-morbid | 53.3% |
| They are linked through a common factor, such as depression | 46.6% |

**Table 6: Types of connection between eating disorders and alcohol use or misuse.**

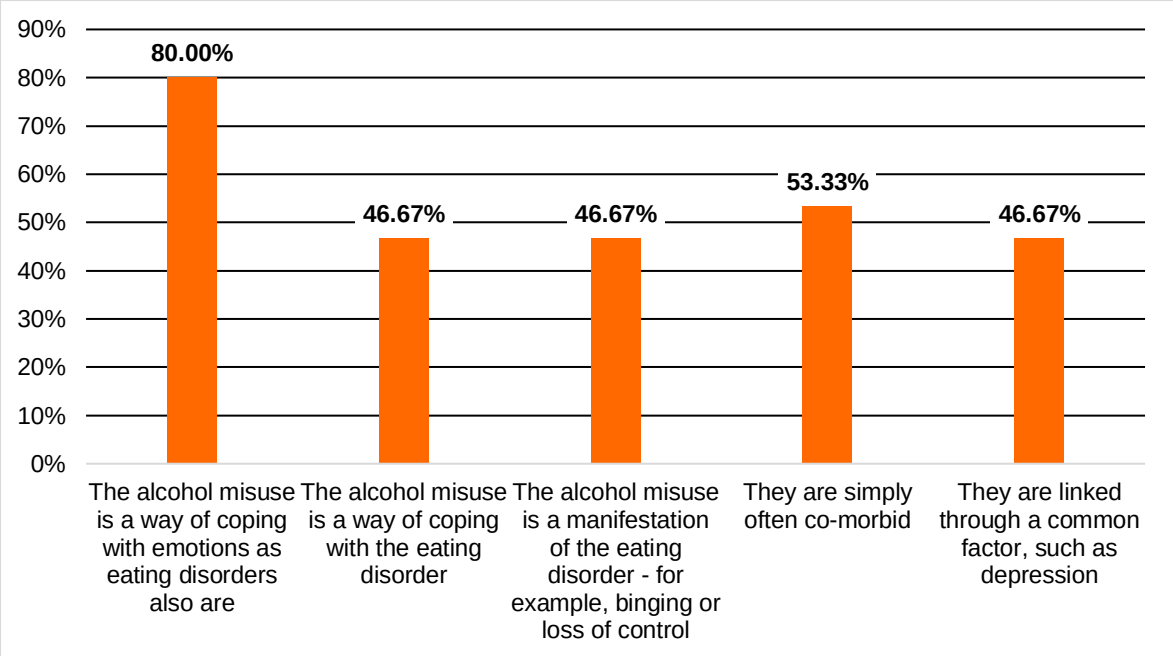



**Figure 2: Types of connection between eating disorders and alcohol use or misuse.**

## Narrative Quotes

*"Linked through a common factor such as aetiology – e.g. childhood adversity, genetic risk factors."*

*"Some pts (patients) find liquid calories safer - often alcoholic in nature."*

*"BUT only with emotionally dysregulated pts (such as BN or atypical ED) – Patients with AN in my experience avoid alcohol/drug abuse as they need to feel more in control as their primary strategy for managing emotions."*

*"They can be connected but mean very different things for different people."*

*"Alcohol use can make the ED worse (e.g. loss of control leading to increased bingeing or reduced food intake due to calories in alcohol)."*

*"Alcohol misuse can exacerbate an eating disorder e.g. lead to binge eating or subsequent food restriction due to concern about calorie intake."*

| Approx. Proportion of People Seen in Eating Disorder Services also using or misusing alcohol | |
|---|---|
| 40-59% | (6.25%) |
| 10-19% | (25%) |
| Less than 10% | (56.2%) |
| None | (12.5%) |

**Table 7: Approx. Proportion of People Seen in Eating Disorder Services also using or misusing alcohol**

What types of interaction do you see with people who use alcohol and have an eating disorder?

| What types of interaction do you see with people who use alcohol and have an eating disorder? | |
|---|---|
| To drink alcohol as a way to lower food intake/miss meals | 42.8% |
| In advance to drinking alcohol, eat less (or nothing) to compensate (overall calorie intake) | 64.2% |
| To drink alcohol to increase calorie intake (e.g., as an alternative to food) | 14.2% |
| To drink alcohol ONLY (without food) to gain the full effect of the high | 21.4% |
| To drink alcohol as a way to promote purging | 14.2% |
| To drink alcohol as a way to suppress appetite | 28.5% |
| To drink alcohol to limit emotions and feelings (e.g., guilt, anxiety) associated to disordered eating behaviours | 92.8% |
| To drink alcohol to heighten emotions and feelings (e.g. motivation, enthusiasm) associated to disordered eating behaviours | 0% |
| To drink alcohol to improve self-esteem and confidence associated to disordered eating behaviours | 42.8% |
| Drinking as part of a binge eating behaviour or in order to facilitate binge eating behaviour | 35.7% |

**Table 8: Types of interaction seen between ED and alcohol use/misuse.**

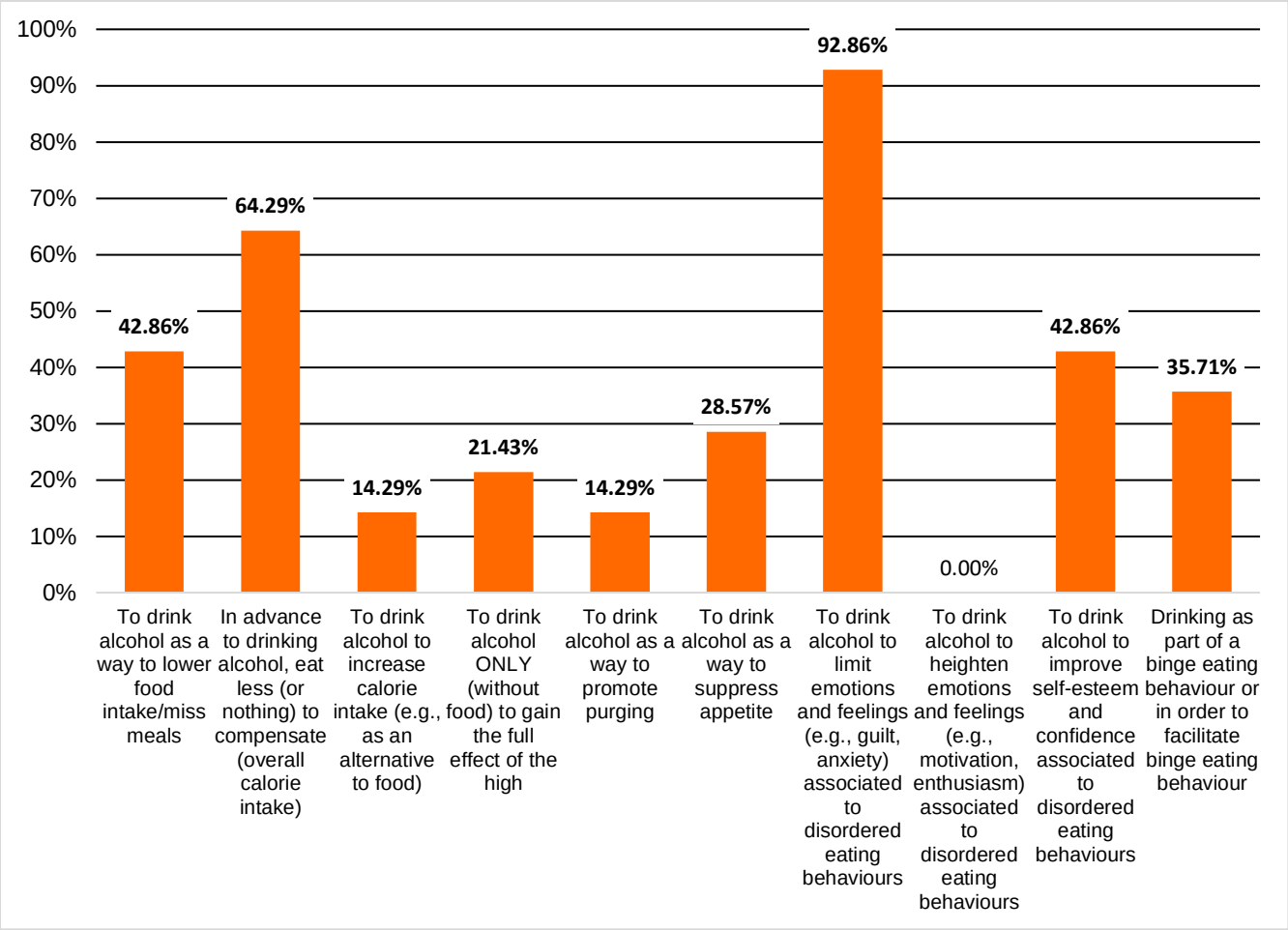



**Figure 3: Types of interaction seen between ED and alcohol use/misuse.**

## Narrative Quotes

*"Drinking to block out difficult underlying feelings generally (not specifically ED related feelings, but may be the emotional difficulties that are also driving their ED behaviour)."*

*"Some report drinking alcohol as it is the only way they can allow themselves to eat."*

*"Drinking in social contexts; all are very different."*

What type of symptoms or behaviours would you say suggest a connection?

| What type of symptoms or behaviours would you say suggest a connection? | |
|---|---|
| Increased food consumption | 50% |
| Decreased food consumption | 71.4% |
| Increased exercise | 7.1% |
| Decreased exercise | 0% |
| Change in eating habits | 42.8% |
| Change in behaviours | 64.2% |
| Improvement in ED symptoms | 14.2% |
| Decline in ED symptoms | 14.2% |
| Improvement in physical health | 0% |
| Decline in physical health | 50% |
| Improvement in psychological wellbeing | 0% |
| Decline in psychological wellbeing | 85.7% |
| Positive changes to mood | 7.1% |
| Negative changes to mood | 64.2% |
| Positive changes to aspects of control | 0% |
| Negative changes of control | 64.2% |
| More socialisation | 28.5% |
| Less socialisation | 35.7% |
| More engagement in ED treatment | 7.1% |
| Less engagement in ED treatment | 64.2% |

**Table 9: Types of behaviours which might suggest a connection.**

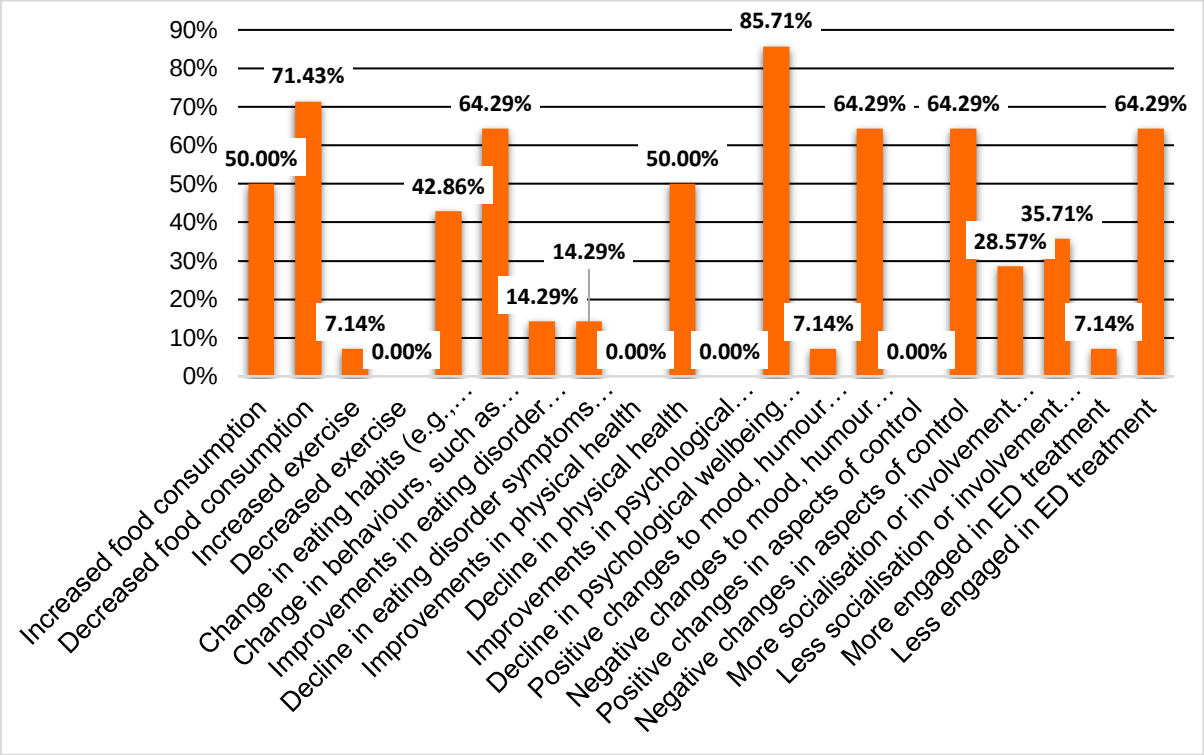



**Figure 4: Types of behaviours which might suggest a connection.**

Demographics associated with this connection

| Demographics associated with this connection | |
|---|---|
| Younger age (below 16) | 0% |
| 16-21 years | 20% |
| Adults | 90% |
| Older adults | 10% |
| Male | 30% |
| Female | 80% |
| Low SES | 20% |
| High SES | 20% |
| Single | 80% |
| Married | 10% |
| Dependent children | 0% |
| Living alone | 60% |
| Living with parents | 20% |
| Living with friends/family | 0% |
| Unemployed | 30% |
| Early stages of ED treatment | 30% |
| Mid-way ED treatment | 20% |
| Later stages of ED treatment or recovery | 30% |

**Table 10: Demographics associated with this connection.**

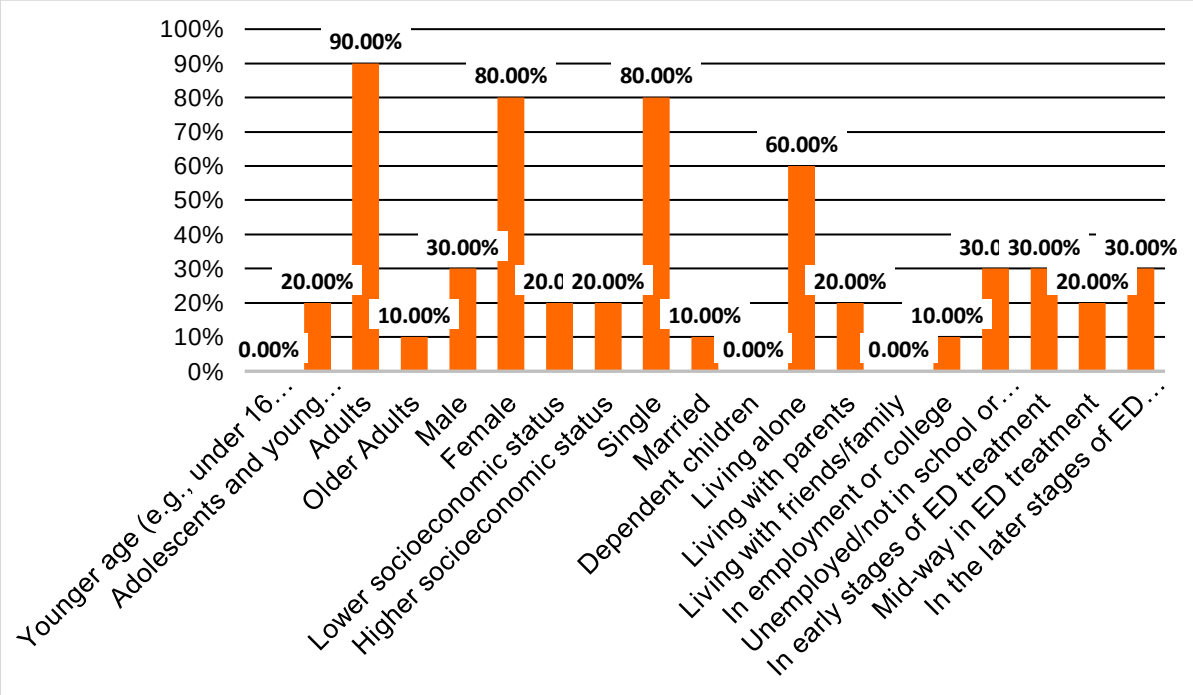



**Figure 5: Demographics associated with this connection.**

## Narrative Quotes

*"Students with ED tend to struggle with alcohol in social settings."*

## The impact on eating disorder treatment

How does alcohol impact on treatment and recovery of eating disorders?

| How does alcohol impact on treatment and recovery of eating disorders? | |
|---|---|
| Alcohol use has a negative impact on ED treatment | 93.3% |
| ED treatment has a negative impact on alcohol use | 33.3% |
| ED treatment has no impact on alcohol use | 6.6% |
| ED treatment has a positive impact on alcohol use | 33.3% |
| The best approach is to treat ED and alcohol use together | 60% |
| The best approach is to treat ED and alcohol use separately | 6.6% |
| It varies from one person to the next | 73.3% |

**Table 11: The impact of ED treatment on alcohol use and vice versa.**

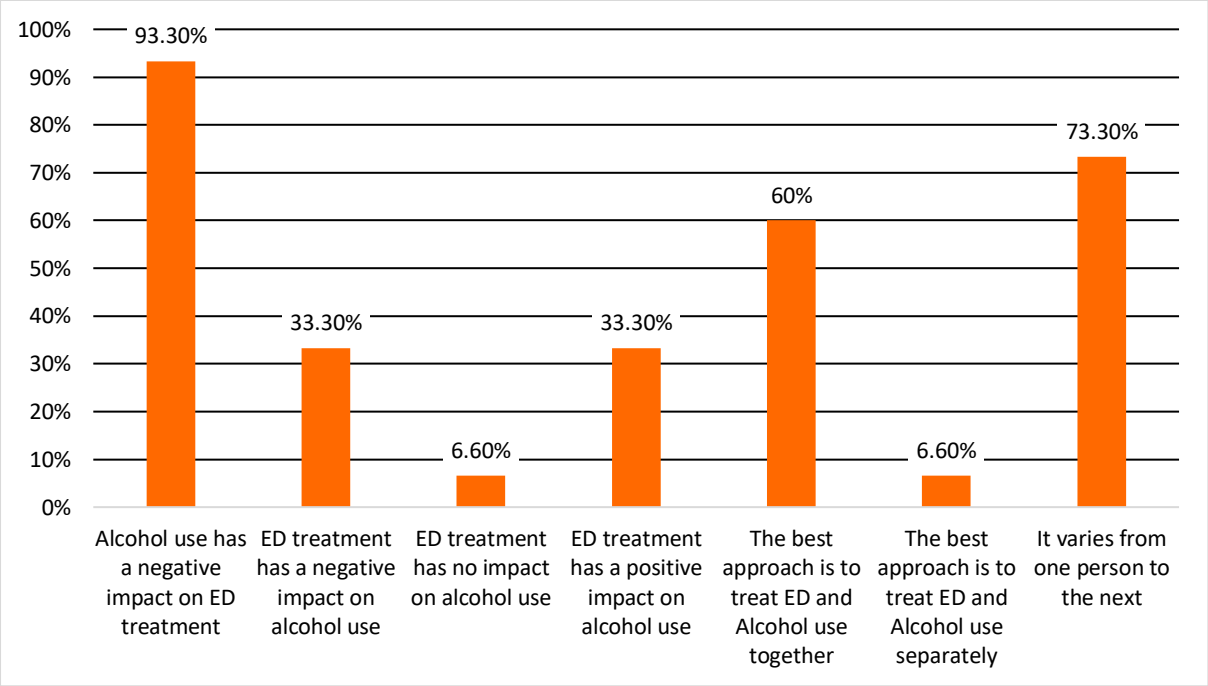



**Figure 6: The impact of ED treatment on alcohol use and vice versa.**

### Narrative Quotes

*"Treat underlying emotional dysregulation; if not treatment for ED can worsen alcohol use."*

*"Treat all the impulsive behaviours together as otherwise in general treating just one will be balanced by an increase in the others. Of course, individuals*

*vary, so need individual assessment and devising a suitable individualised treatment pathway."*

*"Problems exist passing on person from one service to the next. If dependent drinking (every day with withdrawal if stops) then always better to detox first, I would expect appetite to improve."*

*"Dependent drinkers with weight loss usually more to do with depression than over-evaluation of body image. often BN behaviours can switch to alcohol misuse as alternative means of coping so as one gets better the other deteriorates (also with self-harm). varies person to person."*

*"For some it is the saving grace in that it encourages social activities, in others it is either alcohol or the Eating disorder in others it could be a way of coping with emotions etc."*

*"Varies from person to person I'm sure but the above is what I have seen in services so far."*

# Section Five: Eating and drinking with people with eating disorders

In total, 119 people who have had an experience of an eating disorder took part in this online survey which was hosted by the eating disorder charity Beat.

| Gender | % | n. |
|---|---|---|
| Female | 95.76% | 113 |
| Male | 3.39% | 4 |
| Other | 0.85% | 1 |
| Prefer not to say | 0.00% | 1 |

**Table 12: Gender of participants in ED group.**

| Age | % | n. |
|---|---|---|
| 16 to 18 | 5.04% | 6 |
| 18 to 24 | 42.86% | 51 |
| 25 to 34 | 29.41% | 35 |
| 35 to 44 | 16.81% | 20 |
| 45 to 54 | 3.36% | 4 |
| 55 to 64 | 1.68% | 2 |
| 65 to 74 | 0.84% | 1 |
| 75 or older | 0.00% | 0 |

**Table 13: Age of participants in ED group.**

| Occupational and Marital Status | % | n. |
|---|---|---|
| I am employed on a full-time basis | 27.12% | 32 |
| I am employed on a part-time basis | 8.47% | 10 |
| I am self-employed | 4.24% | 5 |
| I am unemployed | 15.25% | 18 |
| I am a housewife/househusband | 0.85% | 1 |
| I am a student at school, college or university | 32.20% | 38 |
| I am married | 2.54% | 3 |
| I am living with a partner but not married | 1.69% | 2 |
| I am divorced | 1.69% | 2 |
| I am widowed | 0.00% | 0 |
| I am single | 5.93% | 7 |
| ***Skipped*** | | ***1*** |

**Table 14: Occupation and marital status of participants in ED group.**

| Type of Eating Disorder | % | n. |
|---|---|---|
| Anorexia Nervosa | 73.95% | 88 |
| Bulimia Nervosa | 31.09% | 37 |
| Binge Eating Disorder | 11.76% | 14 |
| Avoidant/Restrictive Food Intake Disorder | 12.61% | 15 |
| Atypical/Other | 13.45% | 16 |
| Other (please specify) | 5.88% | 7 |

**Table 15: Type of ED experienced by ED group.**

**Other included - Orthorexia, EDNOS, OFSED, non-purging bulimic*
**Duration of years with an eating disorder ranged from 0-30 years*

## Relationship with Drinking, Eating and Exercising

Which of the following best describes your alcohol consumption level?

| Which of the following best describes your alcohol consumption level? | % | n. |
|---|---|---|
| I do not drink alcohol (never have) | 6.78% | 8 |
| I do not drink alcohol (any more) | 11.02% | 13 |
| I rarely drink alcohol | 8.47% | 10 |
| I drink alcohol only on special occasions | 5.08% | 6 |
| I drink alcohol approximately once a month | 2.54% | 3 |
| I drink alcohol approximately every couple of weeks | 5.08% | 6 |
| I drink alcohol at least once a week | 8.47% | 10 |
| I drink alcohol more than twice a week | 16.1% | 19 |
| I drink alcohol every day | 5.93% | 7 |
| I drink little, but often | 1.69% | 2 |
| I drink rarely, but when I do, I drink a lot of alcohol | 7.63% | 9 |
| I drink a lot, and often | 2.54% | 3 |
| I drink as part of a lifestyle | 1.69% | 2 |
| I drink socially | 5.93% | 7 |
| I binge-drink (when I do, I consume a lot, but it's not that often) | 5.93% | 7 |
| I drink only when I want/need it | 5.93% | 6 |
| Other (please specify) | | 7 |
| ***Answered*** | | ***118*** |
| ***Skipped*** | | ***1*** |

**Table 16: Alcohol consumption level reported by ED group.**

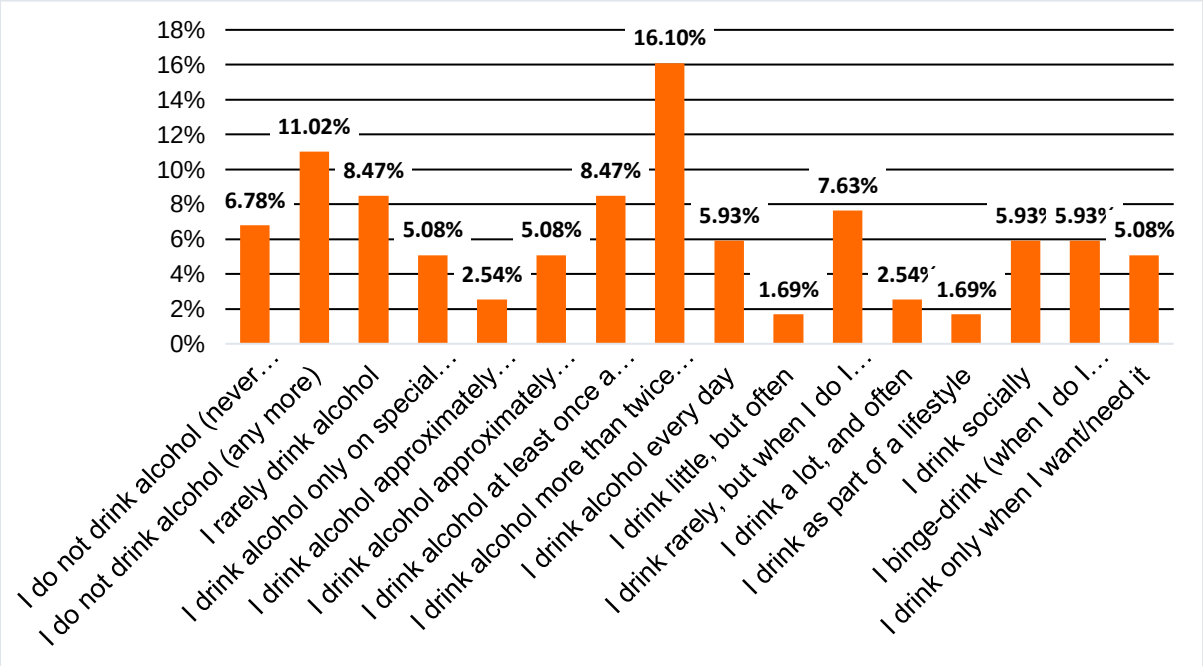



**Figure 7: Alcohol consumption level reported by ED group.**

## Does drinking alcohol, for you, make you eat more (at the time or after) or less?

| Does drinking alcohol, for you, make you eat more (at the time or after) or less? | % | n. |
|---|---|---|
| Alcohol consumption makes me eat MORE at the time of drinking | 24.11% | 27 |
| Alcohol consumption makes me eat MORE after drinking (e.g. the next day or two) | 9.82% | 11 |
| Alcohol consumption makes me eat LESS at the time of drinking | 17.86% | 20 |
| Alcohol consumption makes me eat LESS after drinking (e.g. the next day or two) | 18.75% | 21 |
| No difference | 7.14% | 8 |
| It changes on occasions (sometimes more, sometimes less) | 16.07% | 18 |
| Not sure | 6.25% | 7 |
| Other (please specify) | | 17 |
| ***Answered*** | | ***112*** |
| ***Skipped*** | | ***7*** |

**Table 17: Relationship between alcohol consumption and food consumption reported by ED group.**

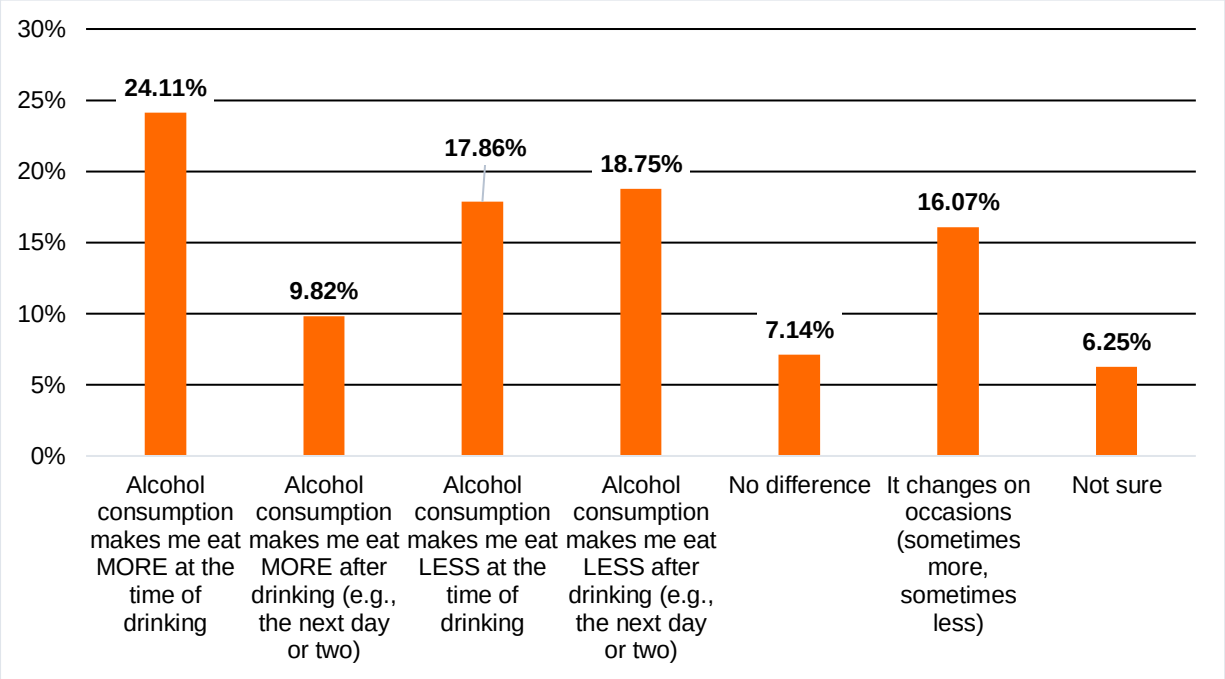



**Figure 8: Relationship between alcohol consumption and food consumption reported by ED group.**

## Narrative Quotes

*"Alcohol consumption makes me eat less at the time of drinking & after drinking."*

*"Used to make me eat more- binge/purge."*

*“I eat less before drinking, more when I am drinking depends how drunk I am, and more the next day.”*

*“I drink less on the day I know I will be drinking alcohol in the evening.”*

*“I don't drink at all.”*

*“Restrict in advance of drinking.”*

*“It makes me eat more now I’m in recovery, however I used to use it so that I wouldn’t eat as much during my eating disorder at its worst.”*

*“More while drinking, then more than morning after too.”*

*“I try to restrict to compensate for the calories in drinks.”*

*“Social alcohol consumption makes me eat something before going to sleep that same night - normally because I have drunk a lot and don’t consciously think about what I am doing.”*

*“Eat less the day I’m drinking to compensate for alcohol calories, and sometimes the day after I’ll eat less too.”*

*“I'm afraid of the loss of control alcohol could cause me to experience, so I avoid it completely.”*

*“But I then used to eat less the next day.”*

*“I wouldn't drink as saw it as more calories.”*

Does drinking alcohol impact on your exercise regime? If so, in what ways?

| Does drinking alcohol impact on your exercise regime? If so, in what ways? | % | n. |
|---|---|---|
| When I have drunk alcohol, I exercise MORE afterwards | 23.68% | 27 |
| When I have drunk alcohol, I exercise LESS afterwards | 9.65% | 11 |
| If I am planning on drinking alcohol, I will exercise MORE before | 25.44% | 29 |
| If I am planning on drinking alcohol, I will exercise LESS before | 2.63% | 3 |
| My exercise regime remains the same | 15.79% | 18 |
| I don't really have a set exercise regime, so it can change from one occasion to the next | 18.42% | 21 |
| I don't exercise | 10.53% | 12 |
| Alcohol consumption makes me MORE motivated to exercise | 16.67% | 19 |
| Alcohol consumption makes me LESS motivated to exercise | 13.16% | 15 |
| My exercise regime may change before/after alcohol consumption, so I can eat MORE | 7.02% | 8 |
| My exercise regime may change before/after alcohol consumption, so I can eat LESS | 4.39% | 5 |
| I am not sure | 9.65% | 11 |
| Other (please specify) | | 6 |
| ***Answered*** | | ***114*** |
| ***Skipped*** | | ***5*** |

**Table 18: Relationship between alcohol consumption and exercise regime reported by ED group.**

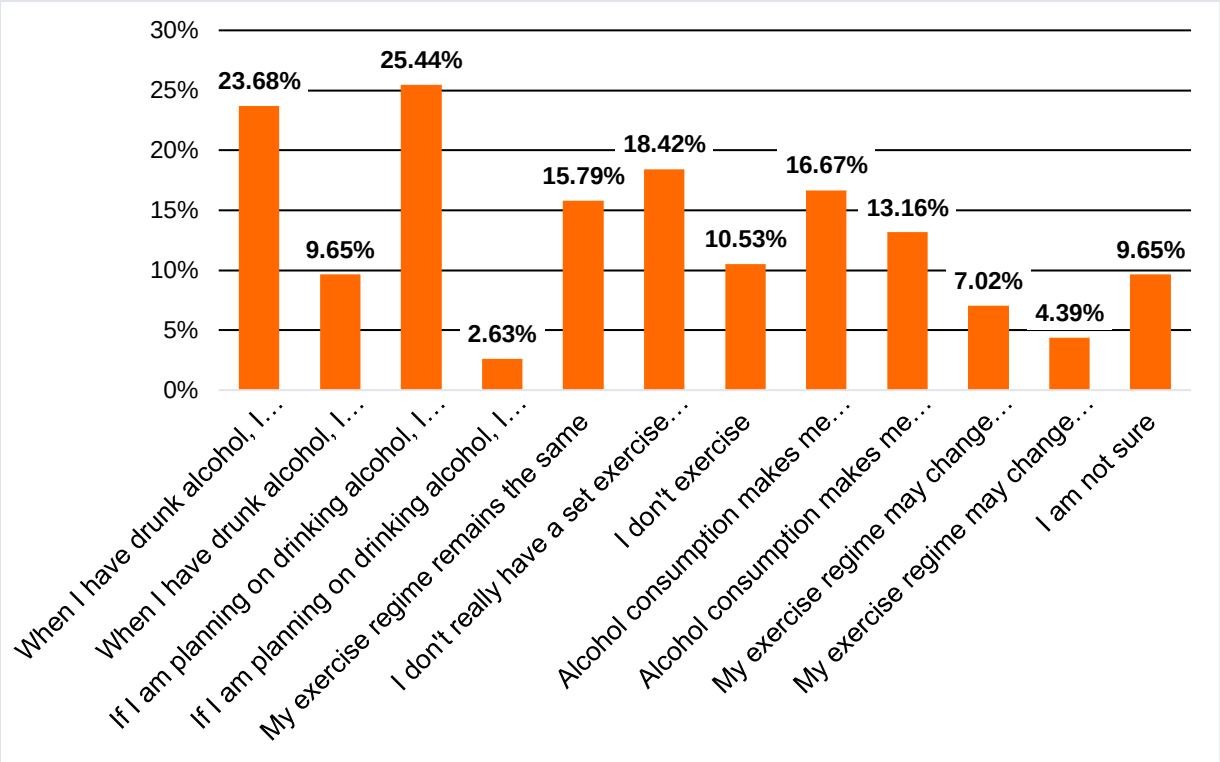



**Figure 9: Relationship between alcohol consumption and exercise regime reported by ED group.**

## Narrative Quotes

*"While I had anorexia I would have exercised more after drinking"* (participant with AN, female age 25-34, employed FT).

*"This usually does not affect me as I do not eat the next day after alcohol consumption."* (participant with AN, female, age 18-24, student)

*"I have a high level of exercise as part of my intention to lose weight."* (participant with ARFID, female, age 45-55 married)

Have you ever replaced a meal with alcoholic drinks?

| Have you ever replaced a meal with alcoholic drinks? | % | n. |
|---|---|---|
| Yes, I have replaced a full day amount of food for alcohol. This was intentional | 28.07% | 32 |
| Yes, I have replaced a full day amount of food for alcohol. This was NOT intentional | 4.39% | 5 |
| Yes, I have missed one or two meals whilst drinking alcohol. This was intentional | 42.98% | 49 |
| Yes, I have missed one or two meals whilst drinking alcohol. This was NOT intentional | 10.53% | 12 |
| Yes, I have missed the odd meal (at a set time) but made up for it after my drinking session (for example, late that night or early the next morning) | 9.65% | 11 |
| I am not sure | 8.77% | 10 |
| No, I often eat the same amount of food when drinking alcohol | 11.40% | 13 |
| No, I often eat more food when drinking alcohol | 7.89% | 9 |
| Please state how often (approx.) this may apply. For example, weekly, monthly, annually, the odd occasion, one-off, etc. | | 42 |
| ***Answered*** | | ***114*** |
| ***Skipped*** | | ***5*** |

**Table 19: Meal replacement (with alcohol) reported by ED group**

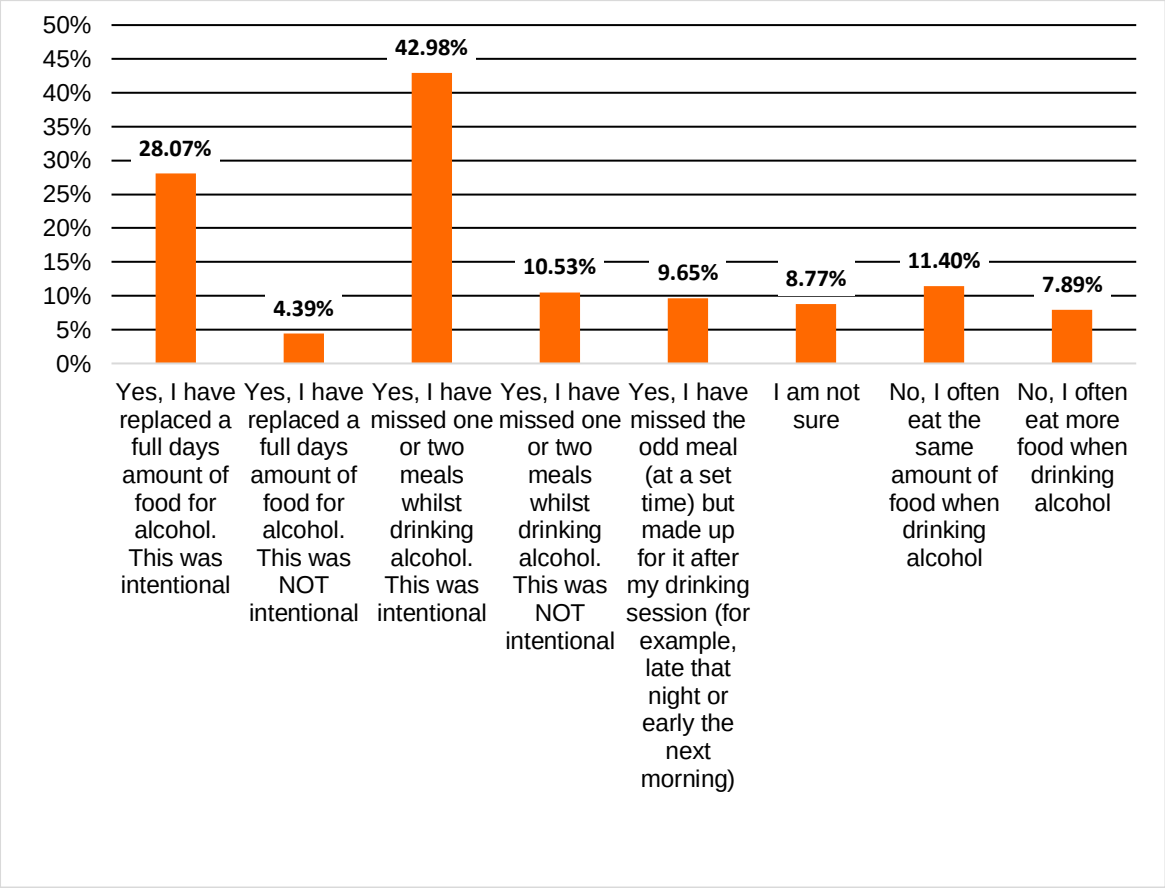



**Figure 10: Meal replacement (with alcohol) reported by ED group.**

## Narrative Quotes

*“Every time I drink I skip a full two days of meals.”*

*“When struggling with Anorexia, drinking alcohol became very unhealthy for me and would often be a replacement for food, before this would be a couple of days per week because of this and now recovered, I am very aware and cautions of my alcohol consumption.”*

*“I don't do any of the above.”*

*“When recovering I used to drink instead of eat. Now if I drink it usually means I eat more. This happens occasionally.”*

*“Used to be weekly, now it is only if I have a slight relapse, but recovery is an ongoing battle I’m working at.”*

*“Purely because my stomach cannot tolerate alcohol and food in one sitting.”*

*“Every time I drink alcohol.”*

*“Every time I drink - I will make sure I fast.”*

*“The odd occasion when I do drink I intentionally fast.”*

*“I might eat less when drinking / been drinking, but rarely miss a whole meal.”*

## Behaviours associated with drinking and eating

Do you feel or behave any differently around the time period you are consuming alcohol?

| Do you feel or behave any differently around the time period you are consuming alcohol? | % | n. |
|---|---|---|
| It can change my eating habits or patterns (e.g. change in meal types, times, settings) | 57.8% | 63 |
| Improvements in eating disorder symptoms (e.g. weight change, less/restrictive/avoidant/purging behaviours) | 15.6% | 17 |
| Decline in eating disorder symptoms (e.g. weight change, less/restrictive/avoidant/purging behaviours) | 34.86% | 38 |
| Improvements in physical health | 3.67% | 4 |
| Decline in physical health | 23.85% | 26 |
| Improvements in psychological wellbeing (e.g. depression, anxiety, self-esteem, confidence, body image) | 32.11% | 35 |
| Decline in psychological wellbeing (e.g. depression, anxiety, self-esteem, confidence, body image) | 47.71% | 52 |
| Positive changes to mood, humour and personality | 48.62% | 53 |
| Negative changes to mood, humour and personality | 33.94% | 37 |
| Positive changes to aspects of control (e.g. compared to perhaps the eating disorder) | 17.43% | 19 |
| Negative changes to aspects of control | 37.61% | 41 |
| More socialisation and involvement with friends/family | 56.88% | 62 |
| Less socialisation and involvement with friends/family | 13.76% | 15 |
| Other (please specify) | | 11 |
| ***Answered*** | | ***109*** |
| ***Skipped*** | | ***10*** |

**Table 20: Behaviour change during/after alcohol consumption reported by ED group.**

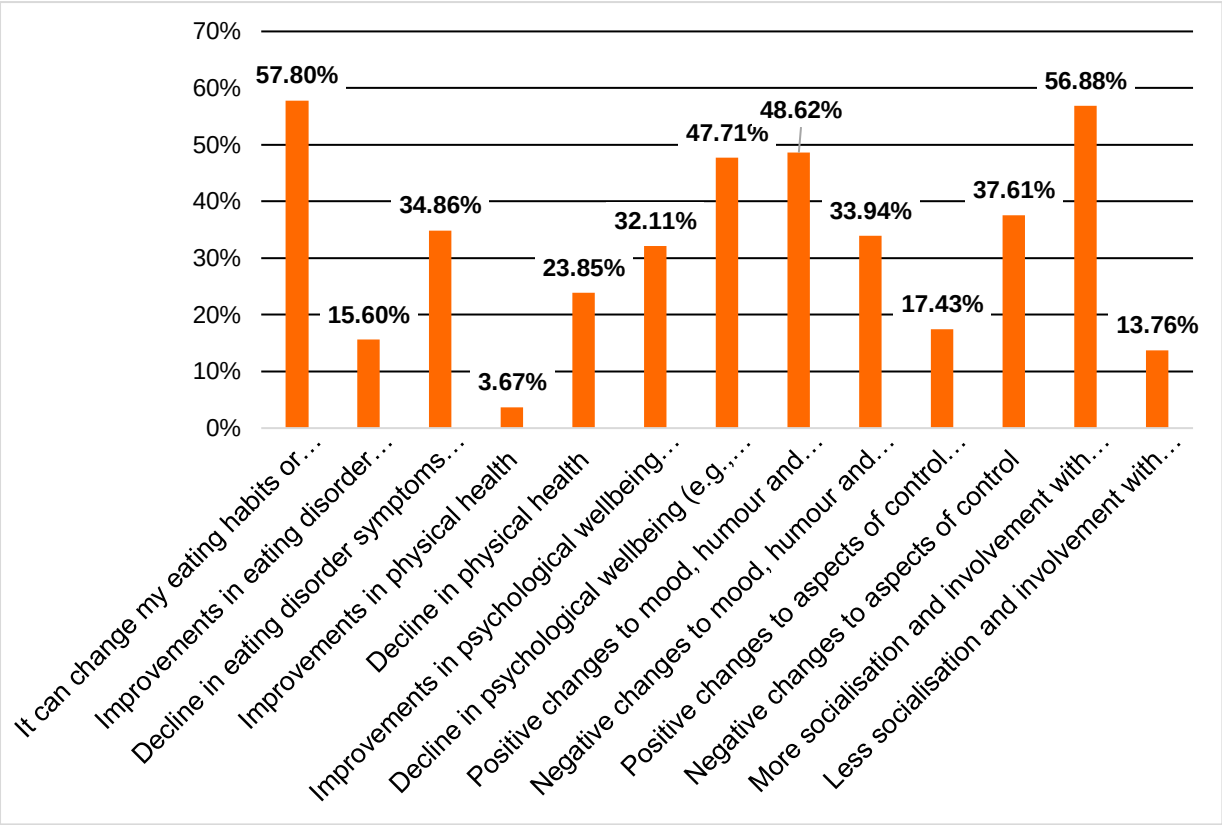



**Figure 11: Behaviour change during/after alcohol consumption reported by ED group.**

How does/did alcohol use impact on the treatment you receive(d) for eating disorders?

| How does/did alcohol use impact on the treatment you receive(d) for eating disorders? | % | n. |
|---|---|---|
| Alcohol use has a NEGATIVE impact on ED treatment | 26.5% | 31 |
| Alcohol use has a POSITIVE impact on ED treatment | 2.56% | 3 |
| Eating disorder treatment has a NEGATIVE impact on alcohol use | 6.84% | 8 |
| Eating disorder treatment has a POSITIVE impact on alcohol use | 4.27% | 5 |
| No impact | 35.9% | 42 |
| Not applicable (e.g. not received any treatment) | 23.93% | 28 |
| ***Answered*** | | ***117*** |
| ***Skipped*** | | ***2*** |

**Table 21: Impact of alcohol consumption on ED treatment reported by ED group.**

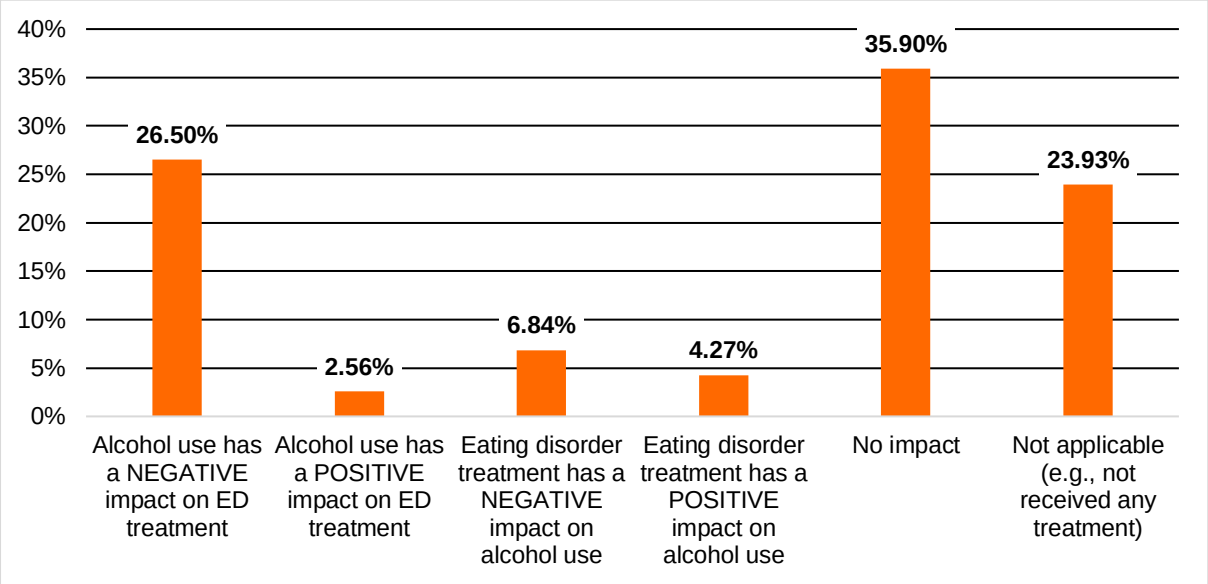



**Figure 12: Impact of alcohol consumption on ED treatment reported by ED group.**

**Do you think eating disorders and alcohol use are connected in any way? If so, what ways?**

| Do you think eating disorders and alcohol use are connected in any way? If so, what ways? | % | n. |
|---|---|---|
| No | 6.96% | 8 |
| Not sure | 14.78% | 17 |
| Yes, alcohol use can trigger eating disorders | 13.91% | 16 |
| Yes, eating disorders can trigger alcohol use (or misuse) | 39.13% | 45 |
| Yes, eating disorders and alcohol can influence each other | 56.52% | 65 |
| I think Anorexia Nervosa is more likely to have a link | 8.7% | 10 |
| I think Bulimia Nervosa is more likely to have a link | 21.74% | 25 |
| I think Binge Eating Disorder is more likely to have a link | 9.57% | 11 |
| Other (please specify) | | 17 |
| ***Answered*** | | ***115*** |
| ***Skipped*** | | ***4*** |

**Table 22: Connection between EDs and alcohol consumption reported by ED group.**

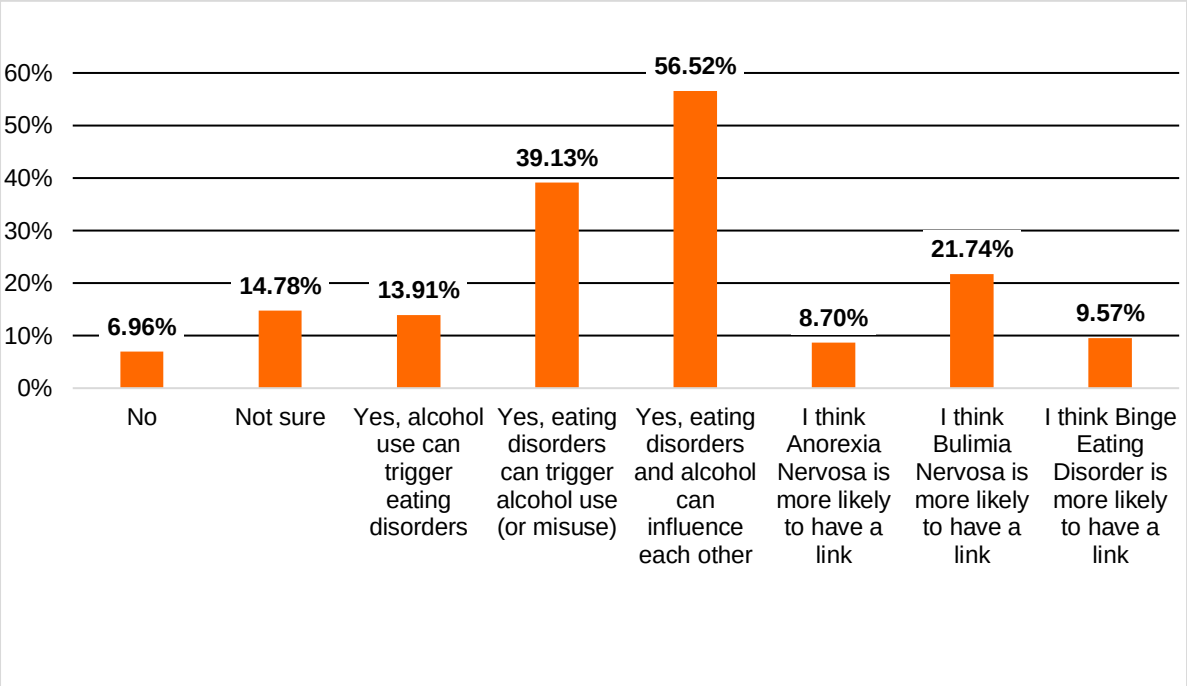



**Figure 13: Connection between EDs and alcohol consumption reported by ED group.**

## Narrative Quotes

*"I think it's difficult because alcohol has calories but equally might be misused to cope with depression that often comes with Eds."*

*"I think it is completely individual, for me, Anorexia triggered alcohol misuse."*

*"For me bulimia is about self-soothing and lack of impulse control, and binge drinking is the same."*

*“I want to add that I developed the anorexia. The two disorders are not related at all in my case.”*

*“I think it varies on every individuals mind set , for me my mind changes daily, sometimes I won’t want food after drinking other times I feel like I should eat to beat ana [anorexia nervosa], but then it could trigger me to think oh whatever I will just eat more, and then I would normally be sick afterwards.”*

*“I stopped drinking when I was very ill due to the calories and still avoid cocktails, wine, and alcopops for this reason.”*

*“When I was anorexic, I stopped drinking but also I'm more likely to be concerned about anorexia when I'm drinking.”*

*“The same root problems cause eating disorders and alcohol misuse.”*

*“I think if you have an eating disorder it can be affected by your drinking but that drinking can't cause an eating disorder that isn't there.”*

*“Eating disorders, especially anorexia, thrive on a need for obsessive and consuming control. Alcohol avoidance seems a possible impact from anorexia nervous, but I imagine it could also be severely misused in excess to drown negative thoughts or replace meals.”*

*“I binge and purge now only when drunk.”*

*“I think drinking alcohol could be a trigger for ED behaviour, even if not at that time. Having said that, it is one of the few things I still enjoy doing.”*

*“It makes me vomit more.”*

*“Alcohol can suppress hunger … it was good to help lose weight …vomit the next day, and dance all night.”*

**Patterns identified in the data from people with eating disorders**

When looking at the eating disorder data, patterns in behaviours were identified between certain variables. For example, between the 'type of eating disorders', the action of 'replacing food for drink' and 'the use of exercise', and the reactions, such as the outcomes on health and wellbeing.

A statistical test of significance was not possible with this sample, as unfortunately many of the respondents for various variables were too low.

However, it was possible to explore the case summaries and frequencies across certain variables, which could provide some indication of patterns of behaviours.

Below is the frequency of the 'eating disorder type' of all the participants.

**Case Processing Summary**

| | Cases | | | | | |
|---|---|---|---|---|---|---|
| | Included | | Excluded | | Total | |
| | N | Percent | N | Percent | N | Percent |
| AN | 88 | 73.9% | 31 | 26.1% | 119 | 100.0% |
| BN | 37 | 31.1% | 82 | 68.9% | 119 | 100.0% |
| BED | 14 | 11.8% | 105 | 88.2% | 119 | 100.0% |
| ARFID | 15 | 12.6% | 104 | 87.4% | 119 | 100.0% |
| ATYPICAL | 16 | 13.4% | 103 | 86.6% | 119 | 100.0% |
| Other | 7 | 5.9% | 112 | 94.1% | 119 | 100.0% |

**Table 23: Eating disorder types of all participants from the ED group.**

When an ED type for example is used as an independent variable, it is possible to explore potential links with other dependent variables. For example, when you match these frequencies against other variables, such as actions and reactions, you can see that certain types of patterns become apparent.

For example, when you look at the frequency of how people describe their alcohol consumption and compare between groups of 'ED type' for example, you can see who may be more at risk of high alcohol consumption.

| Which of the following best describes your alcohol consumption level?Tick all that are applicable | AN | BN | BED | ARFID | ATYPICAL | Other |
|---|---|---|---|---|---|---|
| I do not drink alcohol (never have) | 6 | 1 | 2 | | 1 | 1 |
| I do not drink alcohol (any more) | 13 | 3 | 1 | 2 | | |
| I rarely drink alcohol | 8 | 1 | 1 | 1 | 3 | |
| I drink alcohol only on special occasions | 5 | 1 | 1 | | | |
| I drink alcohol approximately once a month | 2 | 1 | | 1 | 2 | |
| I drink alcohol approximately e very couple of weeks | 5 | 1 | 1 | | 1 | |
| I drink alcohol at least once a week | 8 | 4 | | 2 | 1 | |
| I drink alcohol more than twice a week | 14 | 3 | 2 | 2 | 2 | 3 |
| I drink alcohol every day | 5 | 4 | | | 1 | 1 |
| I drink little, but often | 2 | 1 | | 1 | | |
| I drink rarely, but when I do I drink a lot of alcohol | 8 | 3 | 1 | 1 | 2 | |
| I drink a lot, and often | 2 | 3 | | 1 | | 1 |
| I drink as part of a lifestyle | 1 | 2 | | | | |
| I drink socially | 3 | 1 | 1 | 1 | 2 | 1 |
| I binge-drink (when I do I consume a lot, but it's not that often) | 2 | 5 | 1 | | | |
| I drink only when I want/need it | 3 | 3 | 3 | 3 | 1 | |
| Total | 87 | 37 | 14 | 15 | 16 | 7 |

**Table 24: Description of alcohol consumption patterns from ED group.**

In that, this data may suggest that people who have anorexia nervosa divide between two types of alcohol use – some that do not drink at all, and others who drink more than twice a week and some every day. For bulimia nervosa and other ED types, in contrast, there tends to be a lot more diversity in responses.

However, as we explore further, the patterns become more interesting. For example, below is the frequency of all participants responses to ‘drinking and the link to eating, and if it makes them eat more or less’.

The data shows that anorexia nervosa is very mixed, with 17 (out of 88) reporting drinking makes them eat ‘more’, yet many saying it makes them eat ‘less’ at the time of drinking, and after drinking (16/88 and 18/88). In contrast, for bulimia nervosa, BED, ARFID, Atypical and other types of ED, the largest percentage of participants say it makes them eat ‘more’. This may explain the pattern noticed previously amongst people with anorexia nervosa – why some would drink often, and others did not drink at all. Depending on whether alcohol stimulated or suppressed their appetites, they may have been making conscious decisions to not drink in order not to eat, or alternatively to drink in order not to eat. This particular area would benefit from further research to explore these associations.

| Does drinking alcohol, for you, make you eat more (at the time or after) or less? | AN | BN | BED | ARFID | ATYPICAL | Other |
|---|---|---|---|---|---|---|
| Alcohol consumption makes me eat MORE at the time of drinking | 17 | 8 | 4 | 4 | 6 | 2 |
| Alcohol consumption makes me eat MORE after drinking (e.g., the next day or two) | 6 | 6 | 4 | 1 | 2 | |
| Alcohol consumption makes me eat LESS at the time of drinking | 16 | 9 | 1 | 3 | 2 | 1 |
| Alcohol consumption makes me eat LESS after drinking (e.g., the next day or two) | 18 | 4 | | 2 | 3 | 1 |
| No difference | 8 | 1 | | 1 | 1 | |
| It changes on occasions (sometimes more, sometimes less) | 12 | 6 | 3 | 3 | 2 | |
| Not sure | 4 | 2 | 2 | 1 | | 3 |
| Total | 81 | 36 | 14 | 15 | 16 | 7 |

**Table 25: Reported food consumption post alcohol consumption from ED group.**

This possible explanation for this pattern leads us to believe that there may be more clarity found if we were to explore how people, based on their ED type in particular, choose to manage their eating and drinking behaviours. For example, it may explain whether or not they choose to replace one for the other or engage in additional physical activity or exercise to make up for their over consumption of alcohol and food.

For example, below is the frequency of all participants who have reported to have replaced at least one full day worth of food for alcohol, as an intentional action. (This is 32 out of 119 participants).

**Have you ever replaced a meal with alcoholic drinks?**

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|---|---|---|---|---|---|
| Valid | Yes, I have replaced a full days amount of food for alcohol. This was intentional | 32 | 26.9 | 100.0 | 100.0 |
| Missing | System | 87 | 73.1 | | |
| Total | | 119 | 100.0 | | |

**Table 26: Meal replacement reported by ED group.**

Yet, when this is explored across ED types (and taking into account the amount of original participant responses per ED type in Table 1) there is a very similar pattern here across eating disorders (especially for AN, BN, ARFID and Atypical/other).

In that, based on the total population of each ED type, replacing a full day amount of food, intentionally represents a large percentage of 4 out of the 5 ED groups:

24 out of 88 AN
16 out of 37 BN
2 out of 14 BED
5 out of 15 ARFID
5 out of 16 Atypical

This pattern also continues across ED type groups, such as missing one or two meals, but not always as an intentional action.

| N | | | | | |
|---|---|---|---|---|---|
| Have you ever replaced a meal with alcoholic drinks? | AN | BN | BED | ARFID | ATYPICAL |
| Yes, I have replaced a full days amount of food for alcohol. This was intentional | 24 | 16 | 2 | 5 | 5 |
| Total | 24 | 16 | 2 | 5 | 5 |

**Table 27: Intentional full day meal replacement across ED type groups.**

| N | | | | | |
|---|---|---|---|---|---|
| Have you ever replaced a meal with alcoholic drinks? | AN | BN | BED | ARFID | ATYPICAL |
| Yes, I have missed one or two meals whilst drinking alcohol. This was intentional | 39 | 21 | 5 | 8 | 5 |
| Total | 39 | 21 | 5 | 8 | 5 |

**Table 28: Intentional occasional meal replacement across ED type groups.**

When looking at the actions such as the use of exercise, there were high percentages in all groups reporting themselves to exercise more 'before' and 'after' drinking across all diagnostic groups. This is outlined in the table below.

N

| AN | After drinking, exercise more | After drinking, exercise less | Before drinking, exercise more | Before drinking, exercise less | Regime stays the same | Dont have exercise regime | Dont exercise | Drinking = More motivtaion to exercise | Drinking + Less motivation to exercise | Exercise regime may change, so i can eat more | Exercise regime may change, so i can eat less |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Anorexia Nervosa | 22 | 6 | 22 | 2 | 15 | 19 | 9 | 16 | 9 | 6 | 3 |
| Total | 22 | 6 | 22 | 2 | 15 | 19 | 9 | 16 | 9 | 6 | 3 |

N

| BN | After drinking, exercise more | After drinking, exercise less | Before drinking, exercise more | Before drinking, exercise less | Regime stays the same | Dont have exercise regime | Dont exercise | Drinking = More motivtaion to exercise | Drinking + Less motivation to exercise | Exercise regime may change, so i can eat more | Exercise regime may change, so i can eat less |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bulimia Nervosa | 10 | 5 | 10 | 2 | 5 | 7 | 4 | 7 | 7 | 3 | 3 |
| Total | 10 | 5 | 10 | 2 | 5 | 7 | 4 | 7 | 7 | 3 | 3 |

N

| BED | After drinking, exercise more | After drinking, exercise less | Before drinking, exercise more | Before drinking, exercise less | Regime stays the same | Dont have exercise regime | Dont exercise | Drinking = More motivtaion to exercise | Drinking + Less motivation to exercise | Exercise regime may change, so i can eat more | Exercise regime may change, so i can eat less |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Binge Eating Disorder | 2 | 4 | 1 | 3 | 2 | 1 | 2 | 1 | 5 | 2 | 2 |
| Total | 2 | 4 | 1 | 3 | 2 | 1 | 2 | 1 | 5 | 2 | 2 |

N

| ARFID | After drinking, exercise more | After drinking, exercise less | Before drinking, exercise more | Before drinking, exercise less | Regime stays the same | Dont have exercise regime | Dont exercise | Drinking = More motivtaion to exercise | Drinking + Less motivation to exercise | Exercise regime may change, so i can eat more | Exercise regime may change, so i can eat less |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Avoidant/Restrictive Food Intake Disorder | 6 | 1 | 3 | 2 | 2 | 6 | 2 | 2 | 3 | 3 | 4 |
| Total | 6 | 1 | 3 | 2 | 2 | 6 | 2 | 2 | 3 | 3 | 4 |

N

| ATYPICAL | After drinking, exercise more | After drinking, exercise less | Before drinking, exercise more | Before drinking, exercise less | Regime stays the same | Dont have exercise regime | Dont exercise | Drinking = More motivtaion to exercise | Drinking + Less motivation to exercise | Exercise regime may change, so i can eat more | Exercise regime may change, so i can eat less |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Atypical/Other | 6 | 3 | 11 | 1 | 2 | 2 | 2 | 5 | 3 | 4 | 1 |
| Total | 6 | 3 | 11 | 1 | 2 | 2 | 2 | 5 | 3 | 4 | 1 |

**Table 29: Relationship between alcohol consumption and exercise regime reported by ED group.**

The reactions to these actions were also interesting. For example, when an intentional choice (or unintentional in some cases) was made to reduce food or increase exercise to make up for alcohol consumption, the outcomes based on health and wellbeing suggested that these choices and actions evoke very different reactions, and can also vary based on an ED type. This again, is a very important area for more exploration and research.

For example, across all ED groups, replacing food intentionally has a strong association with individual case reports of 'changing eating habits and patterns'.

N

| Change eating habits | Replaced full days meals, intentionally | Replaced full days meals, unintentionally | one/two meals, intentionally | one/two meals, unintentionally | Odd meal, but made it up afterwards | no, eat the same when drinking or not | no, eat more food when drinking |
|---|---|---|---|---|---|---|---|
| It can change my eating habits or patterns (e.g., change in meal types, times, settings) | 17 | 4 | 33 | 9 | 9 | 7 | 5 |
| Total | 17 | 4 | 33 | 9 | 9 | 7 | 5 |

| N<br>Decline ED symptoms | Replaced full days meals, intentionally | Replaced full days meals, unintentionally | one/two meals, intentionally | one/two meals, unintentionally | Odd meal, but made it up afterwards | no, eat the same when drinking or not | no, eat more food when drinking |
|---|---|---|---|---|---|---|---|
| Decline in eating disorder symptoms (e.g., weight change, more restrictive/avoidant/purging behaviours) | 19 | 2 | 12 | 6 | 5 | 3 | 1 |
| Total | 19 | 2 | 12 | 6 | 5 | 3 | 1 |

| N<br>Decline physical health | Replaced full days meals, intentionally | Replaced full days meals, unintentionally | one/two meals, intentionally | one/two meals, unintentionally | Odd meal, but made it up afterwards | no, eat the same when drinking or not | no, eat more food when drinking |
|---|---|---|---|---|---|---|---|
| Decline in physical health | 10 | 2 | 13 | 5 | 5 | 1 | 3 |
| Total | 10 | 2 | 13 | 5 | 5 | 1 | 3 |

| N<br>Decline psychological wellbeing | Replaced full days meals, intentionally | Replaced full days meals, unintentionally | one/two meals, intentionally | one/two meals, unintentionally | Odd meal, but made it up afterwards | no, eat the same when drinking or not | no, eat more food when drinking |
|---|---|---|---|---|---|---|---|
| Decline in psychological wellbeing (e.g., depression, anxiety, self-esteem, confidence, body image) | 19 | 2 | 24 | 4 | 9 | 6 | 3 |
| Total | 19 | 2 | 24 | 4 | 9 | 6 | 3 |

| N<br>Negtaive mood, humour, personality | Replaced full days meals, intentionally | Replaced full days meals, unintentionally | one/two meals, intentionally | one/two meals, unintentionally | Odd meal, but made it up afterwards | no, eat the same when drinking or not | no, eat more food when drinking |
|---|---|---|---|---|---|---|---|
| Negative changes to mood, humour and personality | 16 | 3 | 17 | 6 | 6 | 3 | 3 |
| Total | 16 | 3 | 17 | 6 | 6 | 3 | 3 |

| N<br>Negative aspects of control | Replaced full days meals, intentionally | Replaced full days meals, unintentionally | one/two meals, intentionally | one/two meals, unintentionally | Odd meal, but made it up afterwards | no, eat the same when drinking or not | no, eat more food when drinking |
|---|---|---|---|---|---|---|---|
| Negative changes to aspects of control | 15 | 3 | 16 | 7 | 6 | 5 | 3 |
| Total | 15 | 3 | 16 | 7 | 6 | 5 | 3 |

**Tables 30-35: Reported reactions to replacing/not replacing meal(s) on eating habits, ED symptoms, physical and mental health, mood and aspects of control.**

Alcohol use was not all negative. In some cases, this is also linked with improved socialisation and positive changes to mood, humour and personality.

| N<br>More socialisation | Replaced full days meals, intentionally | Replaced full days meals, unintentionally | one/two meals, intentionally | one/two meals, unintentionally | Odd meal, but made it up afterwards | no, eat the same when drinking or not | no, eat more food when drinking |
|---|---|---|---|---|---|---|---|
| More socialisation and involvement with friends/family | 17 | 5 | 30 | 9 | 6 | 4 | 4 |
| Total | 17 | 5 | 30 | 9 | 6 | 4 | 4 |

**Table 36: Changes to socialisation with alcohol use in relation to meal replacement.**

| N<br>Positive mood, humour, personality | Replaced full days meals, intentionally | Replaced full days meals, unintentionally | one/two meals, intentionally | one/two meals, unintentionally | Odd meal, but made it up afterwards | no, eat the same when drinking or not | no, eat more food when drinking |
|---|---|---|---|---|---|---|---|
| Positive changes to mood, humour and personality | 13 | 5 | 26 | 8 | 5 | 5 | 3 |
| Total | 13 | 5 | 26 | 8 | 5 | 5 | 3 |

**Table 37: Positive changes to mood, humour and personality in relation to meal replacement.**

When explored alongside actions of exercise, there were negative outcomes – in eating disorder severity, change of eating behaviour and psychological state – identified in individual cases.

| N<br>Change eating habits | After drinking, exercise more | After drinking, exercise less | Before drinking, exercise more | Before drinking, exercise less | Regime stays the same | Dont have exercise regime | Dont exercise | Drinking = More motivtaion to exercise | Drinking + Less motivation to exercise | Exercise regime may change, so i can eat more | Exercise regime may change, so i can eat less |
|---|---|---|---|---|---|---|---|---|---|---|---|
| It can change my eating habits or patterns (e.g., change in meal types, times, settings) | 19 | 9 | 17 | 2 | 14 | 12 | 4 | 12 | 12 | 5 | 2 |
| Total | 19 | 9 | 17 | 2 | 14 | 12 | 4 | 12 | 12 | 5 | 2 |

| N<br>Decline ED symptoms | After drinking, exercise more | After drinking, exercise less | Before drinking, exercise more | Before drinking, exercise less | Regime stays the same | Dont have exercise regime | Dont exercise | Drinking = More motivtaion to exercise | Drinking + Less motivation to exercise | Exercise regime may change, so i can eat more | Exercise regime may change, so i can eat less |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Decline in eating disorder symptoms (e.g., weight change, more restrictive/avoidant/purging behaviours) | 14 | 6 | 13 | 2 | 4 | 5 | 5 | 11 | 8 | 4 | 1 |
| Total | 14 | 6 | 13 | 2 | 4 | 5 | 5 | 11 | 8 | 4 | 1 |

| N<br>Decline physical health | After drinking, exercise more | After drinking, exercise less | Before drinking, exercise more | Before drinking, exercise less | Regime stays the same | Dont have exercise regime | Dont exercise | Drinking = More motivtaion to exercise | Drinking + Less motivation to exercise | Exercise regime may change, so i can eat more | Exercise regime may change, so i can eat less |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Decline in physical health | 6 | 5 | 9 | 2 | 4 | 5 | 1 | 6 | 7 | 2 | 2 |
| Total | 6 | 5 | 9 | 2 | 4 | 5 | 1 | 6 | 7 | 2 | 2 |

| N<br>Decline psychological wellbeing | After drinking, exercise more | After drinking, exercise less | Before drinking, exercise more | Before drinking, exercise less | Regime stays the same | Dont have exercise regime | Dont exercise | Drinking = More motivtaion to exercise | Drinking + Less motivation to exercise | Exercise regime may change, so i can eat more | Exercise regime may change, so i can eat less |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Decline in psychological wellbeing (e.g., depression, anxiety, self-esteem, confidence, body image) | 16 | 6 | 14 | 2 | 9 | 10 | 6 | 10 | 10 | 4 | 2 |
| Total | 16 | 6 | 14 | 2 | 9 | 10 | 6 | 10 | 10 | 4 | 2 |

| N<br>Negtaive mood, humour, personality | After drinking, exercise more | After drinking, exercise less | Before drinking, exercise more | Before drinking, exercise less | Regime stays the same | Dont have exercise regime | Dont exercise | Drinking = More motivtaion to exercise | Drinking + Less motivation to exercise | Exercise regime may change, so i can eat more | Exercise regime may change, so i can eat less |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Negative changes to mood, humour and personality | 16 | 7 | 13 | 2 | 6 | 8 | 1 | 8 | 9 | 3 | 3 |
| Total | 16 | 7 | 13 | 2 | 6 | 8 | 1 | 8 | 9 | 3 | 3 |

| N<br>Negative aspects of control | After drinking, exercise more | After drinking, exercise less | Before drinking, exercise more | Before drinking, exercise less | Regime stays the same | Dont have exercise regime | Dont exercise | Drinking = More motivtaion to exercise | Drinking + Less motivation to exercise | Exercise regime may change, so i can eat more | Exercise regime may change, so i can eat less |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Negative changes to aspects of control | 12 | 7 | 8 | 2 | 11 | 7 | 4 | 6 | 10 | 2 | 3 |
| Total | 12 | 7 | 8 | 2 | 11 | 7 | 4 | 6 | 10 | 2 | 3 |

**Tables 38-43: Reported changes to eating habits, ED symptoms, physical and mental health, mood and aspects of control in relation to alcohol use and exercise.**

There were also positive outcomes of drinking and exercising more.

| N<br>Improve psychological wellbeing | After drinking, exercise more | After drinking, exercise less | Before drinking, exercise more | Before drinking, exercise less | Regime stays the same | Dont have exercise regime | Dont exercise | Drinking = More motivtaion to exercise | Drinking + Less motivation to exercise | Exercise regime may change, so i can eat more | Exercise regime may change, so i can eat less |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Improvements in psychological wellbeing (e.g., depression, anxiety, self-esteem, confidence, body image) | 9 | 6 | 11 | 1 | 7 | 8 | 5 | 6 | 4 | 2 | 2 |
| Total | 9 | 6 | 11 | 1 | 7 | 8 | 5 | 6 | 4 | 2 | 2 |

| N<br>Positive mood, humour, personality | After drinking, exercise more | After drinking, exercise less | Before drinking, exercise more | Before drinking, exercise less | Regime stays the same | Dont have exercise regime | Dont exercise | Drinking = More motivtaion to exercise | Drinking + Less motivation to exercise | Exercise regime may change, so i can eat more | Exercise regime may change, so i can eat less |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Positive changes to mood, humour and personality | 11 | 6 | 15 | 1 | 9 | 13 | 5 | 12 | 6 | 6 | 2 |
| Total | 11 | 6 | 15 | 1 | 9 | 13 | 5 | 12 | 6 | 6 | 2 |

| N<br>More socialisation | After drinking, exercise more | After drinking, exercise less | Before drinking, exercise more | Before drinking, exercise less | Regime stays the same | Dont have exercise regime | Dont exercise | Drinking = More motivtaion to exercise | Drinking + Less motivation to exercise | Exercise regime may change, so i can eat more | Exercise regime may change, so i can eat less |
|---|---|---|---|---|---|---|---|---|---|---|---|
| More socialisation and involvement with friends/family | 14 | 7 | 16 | 2 | 8 | 14 | 7 | 13 | 9 | 4 | 3 |
| Total | 14 | 7 | 16 | 2 | 8 | 14 | 7 | 13 | 9 | 4 | 3 |

**Tables 44-46: Positive changes to socailisation, mood, humour and personality and psychological wellbeing in relation to alcohol use and exercise.**

When examined by specific ED type, there were some commonalities.
Changing eating habits in response to drinking alcohol is high among all ED types.

| N<br>Change eating habits | AN | BN | BED | ARFID | ATYPICAL | Other |
|---|---|---|---|---|---|---|
| It can change my eating habits or patterns (e.g., change in meal types, times, settings) | 46 | 19 | 8 | 9 | 11 | 3 |
| Total | 46 | 19 | 8 | 9 | 11 | 3 |

**Table 47: Change in eating habits due to alcohol use in all ED types.**

An increase in eating disorder symptoms and decline in physical health and psychological wellbeing was seen in response to drinking alcohol.

| N<br>Decline ED symptoms | AN | BN | BED | ARFID | ATYPICAL | Other |
|---|---|---|---|---|---|---|
| Decline in eating disorder symptoms (e. g., weight change, more restrictive/avoidant/purging behaviours) | 29 | 17 | 4 | 3 | 7 | 1 |
| Total | 29 | 17 | 4 | 3 | 7 | 1 |

| N<br>Decline physical health | AN | BN | BED | ARFID | ATYPICAL | Other |
|---|---|---|---|---|---|---|
| Decline in physical health | 17 | 12 | 7 | 5 | 5 | 1 |
| Total | 17 | 12 | 7 | 5 | 5 | 1 |

| Decline psychological wellbeing | AN | BN | BED | ARFID | ATYPICAL | Other |
|---|---|---|---|---|---|---|
| Decline in psychological wellbeing (e.g., depression, anxiety, self–esteem, confidence, bo dy image) | 40 | 20 | 8 | 6 | 9 | 1 |
| Total | 40 | 20 | 8 | 6 | 9 | 1 |

**Tables 48-50: Increase in eating disorder symptoms and decline in physical health and psychological wellbeing in all ED types due to alcohol use.**

However, positive reactions such as more socialisation, positive mood, humour and personality and positive aspects of control were also seen in all ED diagnoses when drinking alcohol.

| More socialisation | AN | BN | BED | ARFID | ATYPICAL | Other |
|---|---|---|---|---|---|---|
| More socialisation and involvement with friends/family | 49 | 21 | 7 | 10 | 8 | 2 |
| Total | 49 | 21 | 7 | 10 | 8 | 2 |

| Postive aspects of control | AN | BN | BED | ARFID | ATYPICAL |
|---|---|---|---|---|---|
| Positive changes to aspects of control (e.g., compared to perhaps the eating disorder) | 16 | 7 | 1 | 4 | 2 |
| Total | 16 | 7 | 1 | 4 | 2 |

| N<br>Postive aspects of control | AN | BN | BED | ARFID | ATYPICAL |
|---|---|---|---|---|---|
| Positive changes to aspects of control (e.g., compared to perhaps the eating disorder) | 16 | 7 | 1 | 4 | 2 |
| Total | 16 | 7 | 1 | 4 | 2 |

**Tables 51-53: More socialisation, positive mood, humour and personality and positive aspects of control in all ED types due to alcohol use.**

However, negative reactions to alcohol were also seen across all diagnostic groups.

| N<br>Negtaive mood, humour, personality | AN | BN | BED | ARFID | ATYPICAL | Other |
|---|---|---|---|---|---|---|
| Negative changes to mood, humour and personality | 25 | 15 | 6 | 5 | 8 | 2 |
| Total | 25 | 15 | 6 | 5 | 8 | 2 |

| Negative aspects of control | AN | BN | BED | ARFID | ATYPICAL | Other |
|---|---|---|---|---|---|---|
| Negative changes to aspects of control | 28 | 17 | 7 | 6 | 5 | 1 |
| Total | 28 | 17 | 7 | 6 | 5 | 1 |

**Tables 54 & 55: Negative mood, humour and personality and aspects of control in all ED types due to alcohol use.**

# Section Six: Conclusions and recommendations

This research project set out to explore some of the unknown gaps in the current literature. By exploring the relationship between alcohol consumption and eating behaviours with a range of participant groups in both settings, this research identified and attempted to understand the interactions between the two.

The research identified some interesting findings. Firstly, in the SAIL data, there is a clear correlation between GP diagnoses of eating disorders and alcohol dependency, showing a high odds ratio of an eating disorder cohort versus age and sex matched controls.

In the qualitative research, using focus group discussions with people who are (or were) dependent on or misusing alcohol (or other substances), and members of staff working with people with experience of alcohol and substance use, some themes emerged from the data. In Theme 1, no matter what level of severity or stage a person's alcohol level (or substances) was, the importance of food and nutrition to them was often relegated to a 'secondary' priority, for a variety of reasons. Theme 2 identified how for people dependent on alcohol, good food and good meals embodied the concept of 'love, care and pleasure' and warm relationships with others in their lives as a whole, as opposed to alcohol which was solitary and isolating. Theme 3 identified concern about the use of the 'alcohol wheel' used in alcohol service settings, particularly among people who may be more susceptible to an eating disorder, and also other concerns among people within these services who may perhaps be at risk of an eating disorder, through 'teaching' people they should reduce their food intake to compensate for alcohol caloric consumption.

Finally, in the two online surveys, one with clinicians working with eating disorders and one with people who have had an eating disorder, it was widely accepted amongst both clinicians and people with eating disorders that there is a clear correlation between alcohol use and eating disorders.

From the perspective of clinicians, this connection had more to do with using alcohol as a coping mechanism or regulation of difficult emotions linked to the eating disorders. Clinicians did however acknowledge that there could be intentional action to lower food intake and exercise more (after drinking) to compensate for alcohol consumption, which could improve self-esteem and confidence. However, clinicians felt that this would have a negative impact on eating habits and behaviours and a decline in psychological wellbeing, and that alcohol use would have a negative impact on eating disorder treatment.

People with an eating disorder tended to view the consumption of alcohol as an 'all or nothing' response. Whilst all types of drinking consumption were represented in the data, more people tended to lean towards a dichotomy of either never drinking alcohol or drinking more than twice a week. When this was explored further, the results suggested that which arm of the dichotomy was chosen might depend on the individual's perceived outcome of drinking alcohol, and the compensatory behaviours they felt compelled to engage with. A large percentage of drinking behaviours were associated with negative impacts. However, positive aspects to drinking alcohol were also reported by people with eating disorders - improvement in psychological

wellbeing (depression, anxiety, self-esteem and confidence), improved mood, humour and personality and more socialisation were variously reported.

This research project identifies that there are many associations between alcohol use and eating behaviours for people who are seen in both eating disorder and alcohol services. Both groups of people appear to be at risk of developing problems in both areas of drinking and eating, and where this comorbidity occurs, there is a much higher risk of a range of both physical and psychological health concerns.

This research project was able to identify some intriguing patterns and associations between eating and drinking behaviours. Unfortunately, the small sample sizes did not allow statistical tests of significant, and the robustness and implications of these findings are yet to be proven. We would suggest more research is needed to advance understanding in this area, to tease out and develop a deeper understanding of the interaction between eating behaviours, eating disorders and alcohol misuse and dependency. Then only can we begin to develop better ways to address these issues which meet people where they are with their struggles.

# References


1. National Health Service (NHS) Website: https://www.nhs.uk/conditions/alcohol-misuse/ https://www.nhs.uk/conditions/eating-disorders/ cited 01/03/2018
2. Grilo, CM., Sinha, R., O'Malley, SS. (2002) Eating Disorders & Alcohol Use Disorders. *Alcohol Research Health*. 26: 151-160
3. Ressler, A. Insatiable Hungers: Eating Disorders and Substance Abuse (2008) *Social Work Today.* 8. 30.
4. University, National Center on Addiction and Substance Abuse (CASA) at Columbia (2003) Food for Thought: Substance Abuse and Eating Disorders. New York : National Centre on Addiction and Substance Abuse
5. Harrop, E. N. & Marlatt, G. A. (2010). The comorbidity of substance use disorders and eating disorders in women: Prevalence, etiology, and treatment. *Addictive Behaviours, 35*(5): 392–398.
6. Franko, DL., Dorer, DJ., Keel, PK., Jackson, S., Manzo, MP., Herzog, DB (2005) How do eating disorders and alcohol use disorder influence each other? *International Journal of Eating Disorders*. 38(3): 200-2017.
7. Bulik, CM., Klump, KL., Thornton, L., Kaplan, AS., Devlin, B., Fichter, MM., .Kaye, WH. (2004). Alcohol Use Disorder Comorbidity in Eating Disorders: A Multicentre Study. *The Journal of Clinical Psychiatry*, 65(7), 1000-1006
8. Burke S. C., Cremeens, J., Vail-Smith, K., & Woolsey, C. L. (2010). Drunkorexia: Calorie restriction prior to alcohol consumption among college freshman. *Journal of Alcohol and Drug Education*, 54(2), 17-35.
9. Davies, B (1993) Eating disorders vs. drug and alcohol addiction. *Addiction and Recovery*. 13. 11.