The Effect of Past Adverse Life Experiences within an Alcohol Treatment Service: Insights from an Ongoing Study

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Background

Adverse Childhood Experiences (ACEs) below the age of 18 include: abuse (physical, emotional and sexual), neglect (emotional and physical), and several other household and social factors. These are known to increase the risk of developing 23 health outcomes later in life (Hughes et. al, 2017). This includes problematic alcohol use and dependence when using a common cut-off of four of more ACEs compared to no ACEs (Liu, Yang, Shi, Liu and Wang, 2016; Hughes et. al, 2017). Experiencing four or more ACEs can also lead to a longer drinking trajectory (Leung, Britton & Bell, 2015).

In comparison less is known about the same experiences over the age of 18, combinations of the two and whether these effect common treatment factors.

Terminology used

- **ACEs:** Adverse Childhood Experiences (below age 18)
- **AAE**s: Adverse Adult Experiences (age 18 or over)
- **ALE**s: Adverse Lifetime Experiences (combined number of ACEs and AAEs over lifetime to date)

Aims

The study aims to investigate the following in a clinical population actively seeking treatment for problematic alcohol use:

1) Measure prevalence of: Adverse Childhood Experiences, Adverse Adult Experiences and self-reported "coping" as lifetime main reason for alcohol use
2) Establish whether there is a difference in number of reported adverse experiences by those who have ever needed or never needed a detox
3) Whether groups of participants with higher adverse events had greater number of: treatment service involvements, missed appointments, and other open health service involvements compared to those reporting less adverse experiences

Methods

Design: Cross-sectional survey in clinical population

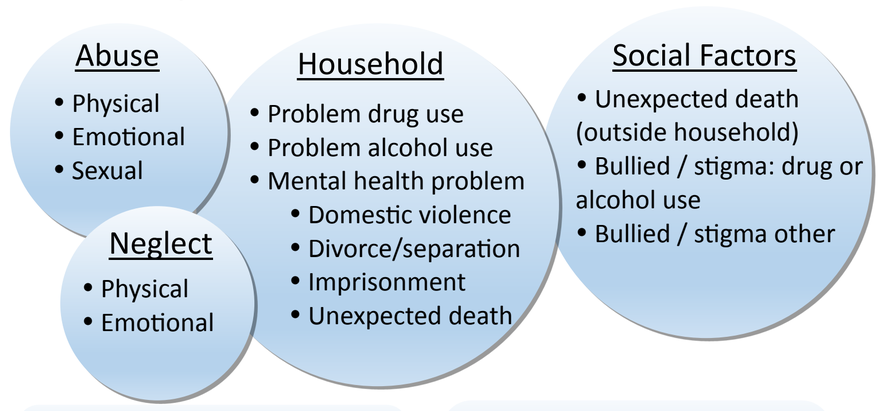
Inclusion criteria: Current service user of Tier 3 substance misuse service in Jersey where alcohol is the main substance of concern, 18 years of age or older.

Exclusion criteria: Co-occurring opiate detox or substitution therapy, Korsakoff syndrome or any other known cognitive deficit

Materials: Questionnaire packs (see *Fig 1* for summary of content), electronic appointment system (going back to 2011), SPSS 26 used for statistical analysis.

Procedure: Questionnaires where posted to all new referrals meeting criteria, current service users where encouraged to take part by their keyworkers. Participants where encouraged to complete questionnaires at home unless they wanted a keyworker present. Data from electronic appointment system was matched to questionnaire data before anonymising. Participation was voluntary and trauma support was offered.

Fig 1 - Summary of data used* including retrospective types of ACEs and AAEs found in questionnaire



*other data also collected but not reported here

Results

At 9 months of study duration uptake was low (*N* = 20, *n* = 3 female). One outlier was removed from inferential statistical analysis due to likely electronic appointment data error.

1) Prevalence

A high prevalence rate of both ACEs and AAEs where found. The majority of participants reported "coping" as the main reason for lifetime alcohol use.

Prevalence rates

- 85% 1 or more ACEs
- 55% 4 or more ACEs
- 100% 1 or more AAEs
- 60% 4 or more AAEs
- 35% 4 or more ACEs continued into AAEs
- 60% 8 or more combined ACEs or AAEs (ALEs)
- 65% *"coping"* as overall reason for alcohol use

2) Lifetime alcohol detox history

Lifetime history of detox was associated with higher ACEs, AAEs and ALEs. Differences in AAEs where not significant. ACEs appeared more significant than ALEs as can be seen in Table 1.

Table 1

Independent samples t-test comparing participants who reported ever having an alcohol detox and never having an alcohol detox

Variable	Group	*N*	*M*	*SD*	*t*	*p*
Num. ACEs	Ever detox	13	6.62	3.82	2.33	.033
	Never detox	6	2.50	2.95		
Num. AAEs	Ever detox	13	6.54	4.41	1.72	.104
	Never detox	6	3.33	1.37		
Num. ALEs	Ever detox	13	13.15	7.79	2.16	.045
	Never detox	6	5.83	3.76		

3a) 4 or more ACEs that continued as AAEs

Experiencing 4 or more ACEs that continued as AAEs resulted in higher: *past service involvements*, *missed appointments*, and *other ongoing health service involvements*. Only differences in service involvement and missed appointments where significant, as seen in Table 2.

Table 2

Independent samples t-test comparing participants reporting 4 or more ACEs that continued as AAEs and participants reporting less than 8 Adverse Lifetime Experiences

Variable	Group	*N*	*M*	*SD*	*t*	*p*
Service involvements	4+4 Cont.	7	7.14	5.64	2.24	.045
	<8 ALEs	7	2.00	2.24		
Missed appointments	4+4 Cont.	7	19.71	19.49	2.44	.031
	<8 ALEs	7	1.57	2.94		
Other health services	4+4 Cont.	7	8.57	5.13	1.72	.111
	<8 ALEs	7	4.57	3.41		

3b) Combination of ACEs and AAEs as ALEs

Experiencing 8 or more ALEs resulted in higher: *missed appointments*, *past service involvements* and *other health service involvements*. Differences where not significant, as seen in Table 3.

Table 3

Independent samples t-test comparing participants reporting 8 or more total Adverse Lifetime Experiences and participants reporting less than 8 Adverse Lifetime Experiences

Variable	Group	*N*	*M*	*SD*	*t*	*p*
Service involvements	≥ 8 ALEs	12	6.75	6.31	1.90	.074
	<8 ALEs	7	2.00	2.24		
Missed appointments	≥ 8 ALEs	12	14.50	16.77	1.99	.062
	<8 ALEs	7	1.57	2.94		
Other health services	≥ 8 ALEs	12	6.58	4.68	.99	.336
	<8 ALEs	7	4.57	3.41		

Discussion

High rates of adverse experiences where found within this clinical cohort as was higher rates of using alcohol to "cope". Some evidence was found that as adverse experiences accumulated from childhood into adulthood as did complexity of treatment through higher *service re-entry*, *missed appointments* and *ongoing multiple health needs*.

Findings should be treated with caution due to current small sample size. Low uptake could partially be explained through service user's active avoidance of negative affect (alcohol use as "coping") which study participation could induce. Recruiting *past* rather than *current* service users in future may increase uptake of future studies.

Ongoing research is needed to confirm preliminary findings. Future research should look at the overcoming of adversity as a predictor of success. Equally research is needed on protective factors to inform more effect treatment and policies on problematic alcohol use.

References

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Conflict of interest statement: The lead researcher and author Steve Gay works part-time at the treatment service in this study. Steps where taken to reduce both experimenter bias and conflicts of interest. There are no other conflicts of interest.