Using Behavioural Insights to Improve the Uptake of Support Services for Drug and Alcohol Misuse in Hartlepool

Final Report

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Executive summary

Hartlepool has the second highest rate of deaths from drug misuse in the North East of England and the seventh highest nationally (John, Butt and McQuade, 2019). Additionally, Hartlepool has the fifth highest under 75 mortality rates from preventable liver disease in the North East of England and they are 23rd out of 152 local authorities nationally (Public Health England, 2019).

Within substance misuse services, the initial approach and early interactions with service users, play a key role in uptake and retention in services with research showing that 50% of clients fail to attend their second treatment session (Miller & Rollnick, 2002, White 2005). Hartlepool Borough Council (HBC) recognised this issue in their own treatment provision, as despite having one of the best treatment outcomes for service users within the region, they only have a 56.5% uptake rate for those assessed and offered support. Hartlepool Borough Council acknowledge that no matter how successful a treatment programme could be, its effectiveness is limited to those individuals who can be engaged in treatment.

The Behavioural Insights Team approach and the Easy, Attractive, Social and Timely (EAST; Hallsworth et al., 2016) framework have been employed in this study to identify and address barriers to service uptake and increase the chances of behaviour change amongst clients and staff.

Introduction

This report is intended for Hartlepool Borough Council and for other councils to learn from. This report provides the evaluation findings from the survey and qualitative interviews completed with service users and presents patterns emerging from routinely collected data. The overall aim of the project was to improve treatment uptake amongst individuals referred to/accessing the Hartlepool Action Recovery Team (HART) service.

Aim and Objectives:

The aim of the project was to increase the uptake of services for drug and alcohol misuse in Hartlepool.

The specific objectives were:

- To use a combination of a Behavioural Insights Survey and qualitative interviews with adult service users to establish factors affecting drug and alcohol treatment uptake.
- To re-design the service offer and approach, drawing on evidence from the behavioural insights survey and qualitative interviews, as well as behaviour change theory.
- To conduct a quasi-experiment to evaluate the redesigned service.
- To explore reasons for substance use among children and young people through qualitative interviews.

Design/methodology:

A quasi-experimental method rather than a controlled trial has been selected. Due to the relatively small number of service users seen by HART and the short timescale for the work, a trial would have been underpowered to provide reliable results relating to the benefit of the redesigned service.

A quasi-experimental method collecting data pre and post redesign was used to maximise the data collection period, increasing the pool of potential participants and thus providing a more reliable evaluation of the effectiveness of the redesigned service offer.

A mixed methods approach combining qualitative and quantitative methods was adopted to enable us to address the complexities of the service user group. The aim of the qualitative interviews was to explore service user's experiences of accessing the HART services, whist the quantitative survey and National Drug Treatment Monitoring System (NDTMS) data were used to provide descriptive statistics regarding the service users attending HART.

A pragmatic behavioural insights framework was employed to inform the redesign of the service offer which had the aim of making treatment uptake easy, attractive, timely and social (Hallsworth et al., 2016). In line with recommendations from the behavioural insights team (Behavioural Insights Team, 2014) a four-stage methodology was applied:

1. Define the Outcomes

2. Understand the Context

3. Design the Intervention

4. Test, Learn, Adapt

1. Define the Outcomes: The research team worked with Hartlepool Borough Council staff to define the primary outcome, which was to increase treatment uptake. We also established that the method of measuring this outcome would be to use the council's routinely-collected NDTMS data.

2. Understand the Context: To understand how behavioural insights, as set out in the EAST framework, can be employed to improve service uptake it was important to understand the context including the experiences of service users and HART as a service provider. To help this, an embedded researcher (LS) worked within the Hartlepool Borough Council sites one day a week between July 2018 and March 2019 to become familiar with the service, and specifically the service offers available. This was complemented with the exploration of factors affecting treatment uptake through a behavioural insights survey (Phase 1) collected between September 2018 and January 2019, and qualitative interviews with service users (Phase 2) conducted between October 2018 and May 2019.

3. *Design the intervention:* In this case the 'intervention' was the redesign of the service offer (phase 3). This involved the research team proposing an initial redesign to HART staff, followed by a workshop with staff to co-develop the redesign as necessary.

Initial Redesign

The initial redesign was developed by drawing on health psychology and behaviour change theory as well as findings from the behavioural insights survey and qualitative interviews. Factors influencing the decision to take up or decline the treatment offer or fail to attend treatment, and recommendations to improve the treatment offer, identified in qualitative interviews was compared and contrasted to the barriers and facilitators to treatment uptake identified in the Behavioural Insights Survey (low scores indicated areas to be addressed) to produce an account of existing facilitators to be maintained and barriers to be addressed in the service redesign.

Co-development of the redesign

The initial redesign was presented to HBC staff, including the whole alcohol and drugs team, via a staff workshop. The staff workshop began with a summary of findings from the behavioural insights survey, qualitative interviews and research assistant observations followed by the presentation of the proposed redesign. Staff contributed to the design process by offering comments, suggestions or changes to the redesign within the workshop.

4. *Test, Learn, Adapt:*

The final step in the four-stage methodology was to draw on routinely collected National Drug Treatment Monitoring System data to test the intervention, understand its impact and if necessary optimise it through adaptation (Phase 4).

Phase 1: Behavioural insights survey

Introduction

As part of the Behavioural Insights work, we conducted a survey of service users to explore their views and experiences of the original service and identify areas where improvements could be made in the future. As existing data show high treatment success rates but relatively low treatment uptake among those referred for assessment, we were especially interested to identify ways we can improve treatment uptake. With this aim in mind we sought to gain survey responses from individuals who:

- Had declined treatment
- Were currently receiving treatment
- Had finished treatment.

The survey was based on the 'EAST' behavioural insights framework which posits that if an action is 'Easy, Attractive, Social and Timely' it is more likely to occur. Factors that could influence uptake and continuation of substance use treatment were identified and mapped on to the EAST framework. Factors assessed by the survey are summarised in Table 1.

Table 1: EAST Framework summary of factors assessed by survey

EAST Framework Component	**Description**	**Factors assessed in survey**
Easy	Ease of attending the service for appointments and assessments.	Cost and time required to travel to and from appointments The amount of time and effort taken up by appointments and how these fit around other commitments. Understanding of what treatment would involve. Usefulness of appointment reminders.
Attractive	How appealing treatment is.	Perceived benefit of treatment Perceived protection of confidentiality and privacy. Emotional response to treatment centre (e.g. feeling relaxed/on edge)
Social	Positive or negative views of other service users and treatment centre staff. Perceived support for treatment involvement from friends and family.	Family/friends awareness and support Perception of others receiving treatment Perception of treatment centre staff
Timely	Indications of whether the respondent is ready to change their substance use. How long they have to wait for/between appointments.	Wait time for initial appointment Wait time between appointments. Motivation to change.

Method

Informed consent

All participants were provided with an information sheet detailing the purpose of the survey and their rights as participants (including the voluntary nature of participation, right to anonymity, right to withdraw, and that there would be no effect on treatment offered should they refuse to participate). Those willing to take part completed a simple tick box consent form prior to completion of the survey itself. All surveys were completed anonymously within HART.

Ethical approval was gained from Newcastle University Faculty of Medical Sciences (Ref: 1528_1/2018). Once ethical approval was gained from the University, this was shared with Hartlepool Borough Council and the Public Health team checked the content and approval was granted. The ethics application included details regarding; an outline of the project, detail about participants (whether they are vulnerable, if they are accessible by gatekeeper etc), recruitment process, consent process, how data will be stored. We also attached the participant information leaflet, consent form, survey questions and draft topic guide.

All participants received a £5 shopping voucher for completing the survey.

Survey

The survey was made available in hard copy and online. Newcastle University identified a GDPR-compliant online survey host (Jisc Online Surveys), however as this was not identified at the time of the original ethics application an amendment was submitted (and approved) to cover the delivery of the questionnaire online. However, no responses were submitted online using this online system.

The survey included seven questions which collected demographic information about the respondent (age, gender, employment status, marital status, number of dependents) as well as information about their substance use and treatment status. This was followed by a free text response box where respondents could provide any comments or feedback about the service. The remainder of the questionnaire included 43 statements with response scales from 1 ‘Strongly disagree’ to 7 ‘Strongly agree’. The survey is shown in Appendix 1.

Analysis

Anonymous data were analysed in SPSS. Where multiple items were used to assess a single factor, scale analysis was conducted to ensure items correlated. All scales were found to have high levels of reliability (Cronbach’s alpha ≥0.6) therefore items were scaled, and average response scores calculated for each scale.

Summary statistics were calculated. A measure of central tendency (mean) and variability (SD) were calculated for each factor. These provide an overall gauge of responses. Means over 4 indicated agreement or positive responses. However, measures of central tendency are not a good representation of data when responses are polarised (e.g. if some service users strongly agree and some strongly disagree with a statement). For this reason, the

number and percentage of responses at the extremes of each scale (scores ≤2 and ≥6) were also calculated.

In order to provide some gauge of honesty in responding, two of the survey questions appeared twice. Responses to repeated questions were found to be highly consistent.

Results

Demographics

A total of 53 responses were received. Two thirds of respondents were male (35 Male: 18 female). Age ranged from 22-64 years (Mean 40.5 years). Most respondents were unemployed (n=42, 79%), though 5 were in full-time employment (9%), 4 were in part-time employment (8%), and 2 were in part time education (4%). The majority were also single (n=43, 81%) with 3 (6%) being married, 3 (6%) co-habiting, and 3 (6%) in a relationship.

Treatment Status

Most respondents were receiving treatment (n=43, 81.1%), 5 (9%) were attending for an initial assessment and 1 had completed treatment.

EAST Framework

Findings from the survey are identified below.

Ease of attending appointments

Overall ease of attending appointments was acceptable and many respondents (N=32, 60%) identified that appointments fit around the rest of their lives. However:

- Approximately 20% (n=11) of respondents found it difficult to get to and from appointments, with a similar number reporting that this could be expensive.
- 72% (n=38) felt it would be useful to receive text-message reminders the day before an appointment and 50% (n=27) agreed that it would be useful to receive appointment letters.
- 30% (n=16) identified that appointments took up a lot of time and energy

Two respondents also used the free text response section of the survey to identify difficulties in getting to and from appointments for example:

> *"Appointments can be awkward, with regards to arranging a babysitter for my daughter, and quite often busses are late, so I miss attending appointments on time. Sometimes no bus fare means walking or cycling for miles."*

Staff were generally considered to explain things well and many were happy with the amount of information provided, however 32% (n=17) of respondents would have liked more information about what to expect from treatment.

Attractiveness of Treatment

Treatment was widely seen as beneficial and most respondents were confident that their privacy and confidentiality would be protected. However, while 80% of respondents identified that they were made to feel welcome, a quarter of respondents reported feeling 'on edge' at the treatment centre.

Almost half the respondents agreed with the statement that they would be more likely to attend if they knew how much appointments cost to provide.

Timeliness of Treatment

Respondents rated their motivation to change very highly. The waiting time for an initial appointment and between subsequent appointments was generally seen as acceptable but over a third of participants reported that they had to wait a long time for their first appointment and almost 20% that they had to wait a long time between appointments.

This issue was also raised in the free response section of the survey with respondents identifying that more could be done to effectively co-ordinate appointments to ensure that the relevant staff and services were available. In addition, the waiting time for commencing and re-starting treatment was also identified as problematic for some respondents.

> *"Services have become extremely hard to re-start and it de-motivates me and my recovery. I would like to recover from my heroin addiction via methadone, but services are now very strict and get dosages wrong and make it difficult to take encouraging steps."*

> *"Getting into service needs to be faster. Appointments need to be close together, and correct appointments need to be made. For example, don't book in for re-start at 15:30, if they stop at 15:00!"*

Social Aspects of Treatment

Respondents generally perceived themselves to have a lot in common with others receiving treatment and held positive perceptions of those in treatment. Perceptions of treatment centre staff were also positive though staff were less likely to be rated non-judgemental than as friendly, respectful and easy to talk to.

Three quarters of respondents had family who were aware that they had been referred to treatment and supportive of this while over half had friends who were aware and supportive. However, a third of respondents identified substance use as a part of their identity and over half stated that it was a big part of their life, factors which may inhibit their ability to change their substance use behaviour.

Additional Free Responses

Many respondents used the free response section of the survey to provide positive feedback about their experience of the treatment service, how beneficial it has been for them and what a difference it has made. For example:

"I found the service fantastic, and I couldn't have asked for any more help/support from all the staff at HART and The Willows."

Some respondents identified areas for improvement. One respondent pointed to the influence of external factors on the success of treatment. This highlights the possible benefit of addressing resilience and coping strategies in treatment to help prevent relapse:

"Treatment definitely does work for me, it's everything else besides treatment that is the reason I would fail, if I were to fail, and the reason for any fails in the past, e.g. present situations, emotional and mental state, stresses, and worrying etc. They seem to be the top factors."

Another respondent highlighted difficulty with obtaining prescribed medication:

"It would be really helpful and make life a little bit easier for a lot of people if the number of pharmacies dispensing the medication was increased. Also, if people on daily had the choice of some pharmacies closer to them, instead of having to go miles away because of their local one being closed on Sundays"

Table 2 shows summary statistics for each factor assessed within the EAST framework structure.

Table 2: Summary of Survey Responses

EAST	Factor	M (SD)	N (%) ≤2	N (%) ≥6
Easy	Ease of attending appointments	4.55 (1.38)	8 (17.4%)	8 (17.4%)
	It is/would be useful to receive appointment letters from the service	4.81 (1.70)	8 (15.4%)	26 (50%)
	It is/would be useful to receive text-message reminders the day before appointments	5.74 (1.40)	3 (6.0%)	36(72.0%)
	Staff explained things to me well	5.58 (1.87)	8 (15.4%)	41 (79.1%)
	I would have liked more information about what would happen	4.24 (1.59)	11 (22.0%)	16 (32.0%)
Attractive	Perceived benefits of treatment	5.94 (0.97)	0(0%)	29 (62.9%)
	Protection of confidentiality and privacy	5.83 (1.45)	4 (7.7%)	39 (75%)
	Emotional response to treatment centre	5.02 (1.53)	4 (10.2%)	17 (34.6%)
	Awareness of the cost of appointments	4.74 (1.96)	11 (22.0%)	24 (48.0%)

Timely	Motivation to change	6.17 (0.67)	0 (0%)	36 (75%)
	I had to wait a long time for my first appointment	3.69 (2.26)	26 (50.0%)	19 (36.6%)
	I have to wait a long time between appointment	3.31 (1.97)	25 (48.1%)	10 (19.3%)
Sociable	Perceptions of others receiving substance use treatment	5.51 (1.21)	1 (1.9%)	24 (48%)
	Perceptions of treatment centre staff	5.87 (1.33)	2 (3.8%)	35(67.4%)
	Family support	6.12 (1.05)	1 (1.9%)	34 (75.5%)
	Friends support	5.51 (1.60)	4 (8.5%)	27 (57.5%)
	Substance use is a big part of who I am	4.20 (2.01)	15 (30%)	17 (34.0%)
	Substance Use is a big part of my life	4.75 (1.95)	12 (23.5%)	27 (52.9%)

A summary of responses to each questionnaire item are provided in Table 3.

Table 3 Summary of responses to survey Items

Survey Item	**Mean (SD)**	**N (%) ≤2**	**N (%) ≥6**
It is easy for me to get to and from appointments at the treatment centre	5.00 (1.96)	10 (19.2%)	33 (63.5%)
It is expensive for me to get to and from appointments at the treatment centre	3.43 (2.10)	24 (49.0%)	11 (22.4%)
Appointments can/do fit in around the rest of my life	5.27 (1.54)	4 (7.8%)	31 (60.7%)
Treatment and appointments will/do take up a lot of my time	4.02 (2.04)	18 (35.3%)	16 (31.4%)
Treatment and appointments will/do take up a lot of my energy and effort	4.14 (1.88)	14 (27/5%)	16 (31.3%)
It is/would be useful to receive text-message reminders the day before appointments	5.74 (1.40)	3 (6.0%)	36 (72.0%)
It is/would be useful to receive appointment letters from the service	4.81 (1.70)	8 (15.4%)	26 (50.0%)
If I knew how much each appointment cost to provide I'd be more likely to attend	4.74 (1.96)	11 (22.0%)	24 (48.0%)

Treatment will be beneficial to me	6.31 (0.99)	1 (2.0%)	46 (90.2%)
Treatment has been beneficial for other people like me	5.94 (1.23)	1 (1.9%)	41 (78.9%)
Treatment will not work for me	2.04 (1.21)	41 (83.7%)	2 (4.1%)
Treatment doesn't work for people like me	2.26 (1.50)	37 (74.0%)	3 (6.0%)
Staff explained things to me well	5.58 (1.87)	8 (15.4%)	41 (78.9%)
I would have liked more information about what would happen	4.24 (1.59)	11 (22.0%)	16 (40%)
I had to wait a long time for my first appointment	3.69 (2.25)	26 (50.0%)	19 (36.6%)
I have to wait a long time between appointments	3.31 (1.97)	25 (48.1%)	10 (19.3%)
I am motivated to change my substance use	6.17 (0.83)	0 (0.0%)	41 (85.4%)
I am confident I can change my substance use	6.00 (1.11)	1 (2.0%)	37 (74.0%)
I feel prepared to take up treatment	6.20 (0.96)	1 (2.0%)	45 (88.3%)
I have experienced negative effects of substance use	6.15 (1.27)	2 (3.8%)	44 (84.6%)
I want to make the most of the treatment offered to me	6.40 (0.66)	0 (0.0%)	49 (94.3%)
Now is the right time for me to change my substance use	6.25 (1.06)	1 (2.0%)	46 (90.2%)
My family are aware that I have been referred to the treatment service	6.02 (1.44)	3 (6.3%)	41 (85.5%)
My friends are aware that I have been referred to the treatment service	5.28 (1.91)	9 (18.0%)	32 (64.0%)
My family are supportive of me attending treatment for substance use	5.91 (1.41)	2 (4.3%)	35 (74.5%)
My friends are supportive of me attending treatment for substance use	5.51 (1.76)	5 (10.6%)	29 (61.7%)
I have a lot in common with others attending substance use treatment	5.40 (1.72)	7 (13.5%)	33 (63.5%)
I'm not like other people who are getting substance use treatment	3.04 (1.76)	28 (54.9%)	7 (13.7%)
I have a positive view of people seeking treatment for substance use	6.10 (1.20)	2 (3.9%)	44 (86.3%)
Substance use is part of who I am	4.20 (2.01)	15 (30.0%)	17 (34.0%)
Substance use is a big part of my life	4.75 (1.95)	12 (23.5%)	27 (52.9%)
Staff at the treatment centre are friendly	5.96 (1.43)	2 (3.8%)	41 (78.9%)
Staff at the treatment centre treat me with respect	5.98 (1.37)	2 (3.8%)	40 (77.0%)

Staff at the treatment centre are easy to talk to	6.00 (1.33)	2 (3.8%)	41 (78.8%)
Staff at the treatment centre are non-judgemental	5.54 (1.74)	5 (9.6%)	36 (69.3%)
I was made to feel welcome when I arrived	5.90 (1.50)	4 (7.8%)	41 (80.4%)
My privacy will be protected	5.79 (1.50)	3 (5.8%)	40 (77.0%)
Things I share with staff during treatment will remain confidential	5.85 (1.43)	3 (5.8%)	41 (78.8%)
I feel I can be honest with staff at the treatment centre	5.87 (1.62)	6 (11.5%)	42 (80.7%)
I have experienced negative effects of substance use	6.08 (1.40)	3 (5.8%)	41 (78.9%)
I feel 'on edge' or anxious at the treatment centre	3.88 (2.08)	19 (37.3%)	13 (25.5%)
I feel relaxed and comfortable at the treatment centre	5.06 (1.79)	6 (12.0%)	24 (48.0%)

Interpretation and Recommendations

The finding that respondents were generally highly motivated should be interpreted cautiously. Firstly, the majority of respondents were currently engaged in treatment and their motivation is likely to be higher than in those who decline or fail to attend treatment. The potential for these results to have been influenced by socially desirable responding (Individuals responding to questions as they feel they should rather than providing an accurate reflection of the situation) should also not be overlooked. However, without at least some motivation to change it is unlikely that individuals would make it as far as coming into contact with the treatment service. As motivation to change can fluctuate it is still important to identify and address any factors that can demotivate service users and consider methods of maintaining and enhancing motivation to change.

Appointments cards and reminders

The effective co-ordination of appointments, timely delivery of sessions and additional communication relating to appointment dates and times emerged as an important factor in facilitating appointment attendance and avoiding service users becoming demotivated by organisational issues. When appointments are arranged we recommended that the details be communicated to service users in writing. Where service users have a fixed address, sending appointment letters may be beneficial. Alternatively, providing appointment cards may have a similar impact. With over 70% of respondents indicating that receiving text message reminders the day before an appointment would be beneficial it is recommended that this system be implemented for those who have access to a mobile phone.

Accessibility of appointments

With some respondents identifying issues with traveling to and from appointments, consideration should be given to whether appointments can be offered more flexibly, especially for those who must travel further to the treatment centre. For example, whether appointments can be arranged to fit in with the public transport timetables and if multiple appointments are required per week can they be scheduled to occur on the same day. In

addition, the possibility of offering some appointments in the community should also be considered. With a subset of respondents indicating that the treatment centre made them feel 'on edge' this may also offer the opportunity to explore the delivery of appointments in contexts where service users feel more comfortable and relaxed.

Information regarding the service offer

Finally, while staff were generally rated as explaining things well, approximately half of service users would have liked to receive more information about what to expect from treatment. Consideration should therefore be given to how best to communicate the services available and what treatment will involve. Service users should also be given adequate opportunity to ask questions.

Phase 2 Interviews

Introduction

As part of the Behavioural Insights work, we conducted a survey of service users to explore their views and experiences of the current service and to identify areas where improvements may be made in the future.

Method

Ethical approval

All participants were provided with an information sheet detailing the purpose of the interview and their rights as participants (including the voluntary nature of participation, right to anonymity, right to withdraw). Those willing to take part completed a simple tick box consent form prior to completion of the interview itself. For participants under 16 years of age, written parental consent was also sought prior to an interview taking place. Ethical approval was gained from Newcastle University Faculty of Medical Sciences, and Hartlepool Borough Council.

Procedure

We used convenience sampling to collect data from service users currently/recently in contact with HART. We conducted 15 interviews with adult service users, interviews lasted between 10 and 50 minutes (mean 30 minutes) and 10 young people interviews lasting between 10 and 39 minutes (mean 19 minutes). Semi- structured topic guides (Appendix 2 and 3) were used to enable a standardised set of questions to be considered whilst also allowing flexibility to be responsive to participants. All interviews were audio-recorded with the participants' consent. Interviews were transcribed verbatim and direct quotes have been used within this report. All participants were assigned a participant code to protect their identity.

All participants received a £10 shopping voucher for completing an interview.

Analysis

Anonymous data were analysed in NVIVO. As with the survey results reported previously, the qualitative analysis was based on the 'EAST' behavioural insights framework (Hallsworth et al., 2016), which posits that if an action is 'Easy, Attractive, Social and Timely' it is more likely to occur. Factors that could influence uptake and continuation of substance use treatment were identified and mapped on to the EAST framework as shown in table 4.

Table 4. East Framework Components

EAST Framework Component	Description
Easy	Ease of attending the service for appointments and assessments.
Attractive	How appealing treatment is.
Social	Positive or negative views of other service users and treatment centre staff. Perceived support for treatment involvement from friends and family.
Timely	Indications of whether the respondent is ready to change their substance use. How long they have to wait for/between appointments.

Findings from interviews with adult service users

Fifteen adult participants were interviewed (11 male; 4 female). All participants were 18 years and over. This qualitative data allowed us to gain deep insight into the views of people using the service. In this section, we present recommendations for the development of the service, focusing on those that relate to the take-up or declining of treatment, as well as improving retention within services once they are accessed.

Easy

Effort in accessing treatment

Participants stated that HART should re-consider the setting that the service is offered from. Many participants had negative views about the look and feel of one of the sites (Whitby Street), although most knew where the location was (if not that a service was offered there).

Flexibility in appointments

There were concerns raised amongst participants that there may be a lack of flexibility regarding appointment, this was especially relevant if service users needed more time for an initial appointment or to discuss complex issues. Additionally, the need for HART to open on evenings and/or weekends, for those with work or family commitments was described as 'massive'.

"On a weekend… When do people struggle most, on a weekend. There is nothing, there is nothing out there. I know, obviously, you can't babysit people 24/7. There's a problem with funding, and stuff like that, but there needs to be something over a weekend and in an evening." [PPT4, Female]

Service users felt that reminders for appointments would be useful.

"No reminders or anything like that. You know, if they give you an appointment card for a month's time, how the fuck are you going to remember that?" [PPT12, Male]

Appointment cards that were handed out were often mislaid or forgotten about; this was compounded if people were late for appointments and so were sent away, feeling upset and angry. One way of addressing this issue could be to use an automated text reminder service.

"With the Doctor's you get a text two days before or the day before. I think that's really good. Maybe if they had an automated text system that just sent you a text the day before, and then you could ring up if you couldn't make it and change your appointment or just reply, "Yes," to it, or whatever." [PPT9, Male]

Almost all participants praised the staff for their caring attitudes, and passion for the role.

"I actually broke down on her. She said, "It's my job." I said, "That wasn't your job. She was really caring. That's what I like about this place. It's not a job. Everybody's passionate about it." [PPT1, Male]

Consistency in key workers

Participants wanted to consistently see the same worker, changes in keyworkers were deemed to be disruptive, participants described not being provided with a reason as to why they were working with a new keyworker;

"*I've had a number of different keyworkers. I don't know why that is, they just keep changing me from people to people. Maybe because they have too many people on their list, I don't know."* [PPT2, Male]

Publicity

Few service users knew about the service prior to being referred into it, despite feeling that there was a well-established need for it. Several stated that if they were aware of the service it was through the word of mouth of individuals who had accessed the service.

"I don't think a lot of people in the town would actually know that Addaction, is there." [PPT11, Male]

Attractive

Views of treatment

Positive: Service users were hugely positive about the NBPS (Neurological, Biological, Psychological, Sociological) programme being delivered as well as the additional classes that were available. One viewed the service as a 'lifeline' and stated that knowing the services would be there to access helped keep them going. Another participant spoke about the impact that they believed the service had on keeping crime and disorder down, also referring to the service as a lifeline. Several felt that the service could not be improved.

"*I think without this service, there would be a lot more crime, a lot more theft, a lot more people dying. Like you say, if it wasn't for me knowing this was here, I'd still be using, I'd still be robbing, shoplifting, doing whatever. You know, it's a lifeline*" [PPT14, Male]

Negative: Several service users were unhappy about the time it took to restart sessions, and a couple felt that this was about maximising profit rather than being best for the service users.

*"It's run as a f****** company, mate. It should be run as a f****** healthcare. It's not run as a healthcare, it's run as a f****** company, profit. It's f****** wrong. Do you know what I mean?"* [PPT12, Male]

For those who had been through the programme (or similar ones) before, they felt that they were not hearing anything new.
"*Because of my knowledge, and the amount of time I've been in services, I do tend to find them quite tedious and boring in all honesty. It's nothing to do with the staff or the content, it's because I know it all and it's a bit like sucking eggs*" [PPT11, Male]

Respondents also felt that communication could also be improved – one service user reported taking a taxi to a session only to find on arriving that there was a poster on the door saying that the session had been cancelled.

"If people are coming from over the other side of town, in bad weather. And to find that there's just a note on the door to say that the meeting is not going ahead, it's not very good, is it?" [PPT6, Male]

Communication via telephone or a text message could have prevented this problem. Also, fitting in service users to other groups or seeing a duty worker was preferred rather than cancelling sessions.

Views of getting 'clean/sober'

Food and Mood classes were viewed positively. 'The place has saved my life' [PPT9, Female]. Insight into the physical aspects of addiction and the effect of mental health on use were both praised.

"I do the Food and Mood classes on a Friday with [staff member], so I teach the guys how to cook a little bit. It's just nice, isn't it? Giving something back is like therapy." [PPT9, Female]

Service sites

Attending Whitby Road was disliked by many, and respondents felt that attending a place aimed solely at drug rehabilitation (rather than, say, a health centre) stigmatised those people in treatment. Participants wanted the building to be 'brightened up', with a nicer open space inside the building (e.g. with plants), and a better room for mindfulness. There were also fears for personal safety with two respondents reported having been attacked at

this location, and another reported being so scared of the place that they declined treatment.

"*I got attacked in here. I was volunteering for the soup kitchen. That was only a couple of months ago. I just declined again. I just disappeared. I didn't want to be near the building, didn't want to be anywhere near it.*" [PPT3, Male]

"I didn't like going there anyway because of how it looked outside when people are under the influence outside. I didn't want to be tarred with that brush." [PPT6, Male]

Perceptions of other service users

Group sessions were found to be beneficial through the sharing of experiences.

"*But that's what the group is good for, because I shared what happened to me in the groups and that does help people. It's seeing different people's perspectives and different people's way of dealing with things. You can relate to that and gain a lot from it. I didn't hear anybody mention that when I was going through the groups. So, I thought it would be a good idea to share my story and help people.*" [PPT9, Female]

People receiving treatment for alcohol use were frightened of those attending for drug use. They reported dealing outside the premises and use on it, as well as aggression from drug users.

Consider running separate sessions for those treated for alcohol use.

Participants suggested splitting treatment groups up according to where people were in their recovery to reduce the exposure to people who are still active in their use.

"You have people who are further on in their recovery than other people, but you have the same groups. So, you have people who don't need that trigger. They don't need to come into a building and see people who are a little bit further back in their recovery, who still possess the same sorts of traits, the look, the way they carry themselves, they still talk constantly about their substance, about where they can get it from. Then we've had it in here, there're people still outside or inside sorting out [drug] dealing and stuff like that. People who are struggling with their recovery, but are serious about it, don't want to be with people who are in the building and not really serious about their recovery. They're here and will approach you and try to get you to buy stuff [drugs]." [PPT4, Female]

One suggestion was to relocate to different buildings as they were attacked outside Whitby Street by someone under the influence of drugs or alcohol.

"*I went there (Whitby Street) a long time ago before I came here. And I was speaking to a lovely lady called [staff member]. But then I stopped going because there was somebody outside, and they'd obviously been on something, and I got attacked outside. So, I didn't go back.*" [PPT6, Male]

Social support/ Friends and family

The social aspect of recovery was important for people in treatment – playing pool and darts, talking to people going through the same problems. One spoke about coming along with his neighbour and they helped each other with recovery. The other people in treatment were seen as a good support network, and a source of friendship.

"*Then, my neighbour next door, [name], he comes here as well. He's been clean the same time. We've, sort of, helped each other. He's been clean the same time as me […] He copes, I cope, we help each other. I've found that a bit easier this time as well, instead of being by myself*" [PPT14, Male]

Waiting times for assessment and between appointments

Assessment

One issue that participants felt strongly about was the time it took to get an appointment. Although some were able to get in quickly (such as through a cancellation);

"They actually had a cancellation or something, so they were able to see me more or less straight away, which was helpful" [PPT9, Female]

Other participants reported having to wait much longer which caused frustration and upset;

"*Obviously, they've got quite a hefty caseload, and appointments are not readily available*" [PPT11, Male].

However, there was a recognition that workers did try to be responsive to clients even if it was via a text message or a phone call;

"*He's usually quite quick when it comes to responding, it's just actually trying to get an appointment*" [PPT3, Male].

Motivation and Readiness to change

People stated that they came into treatment because of significant worsening of physical and/or mental health issues, or a breakdown in relationships with family members. One stated that *'It's life or death'* [PPT10, Male].

Others stated that it was because they were *'sick of being the way they were'* [PPT15, Female].

Going into treatment was sometimes mandatory – such as being a condition of being convicted of dealing drugs. One participant stated that they may have gone into treatment sooner if told to by their workplace.

Interviews with young people

We conducted interviews with ten young people (9 male; 1 female), aged 13 to 17 years old (mean = 14.7 years; SD = 1.42), to explore their experiences of using substances and accessing HART treatment services. Below we present some headline findings from these interviews.

Initiating substance use

Young people shared their experiences of experimenting with substances, including smoking tobacco, drinking alcohol and smoking cannabis with friends, who were often older than them.

"I was at one of those carnivals. People were having it, and then, I was with them and they said, "Do you want to try it?" Then, I tried it." [PPT3YP, Male]

"Well, young like, about 11 or something. But I was knocking about with people who were older than me. It's something I always have done." [PPT6YP, Male]

"We just decided to, like, I think we were with people that had already been doing it before, but then we decided to try it." [PPT9YP, Female]

Initial exposure to substance use, such as smoking tobacco and drinking alcohol often also occurred at home, with family.

"I was about 10 years old, and my mum let me have, like, a little drink, and then I just thought, because my mum let me have a drink, I could drink with my mates. So, I started buying it." [PPT4YP, Male]

One young person went into further detail and described using substances to manage complex issues in their life, such as poor mental health.

"I struggle with life, to be honest. I turned to drugs […] they just thought it was attention because I was just going through the teenage stage, or whatever, but as time went by they started realising that I had turned to drugs, alcohol. A big addiction that I have now. Then, okay, eventually I just started being suicidal." [PPT10YP, Male]

Experiences of accessing treatment

Positive experiences

Young people spoke about how they found the educational content they received from the service incredibly valuable; learning information about substances, and their potentially harmful effects, which they had previously been unaware of. Young people also valued the relationships they formed with staff, and this was identified as an important factor in the success of treatment.

"Just how it educates you about the risks and the dangers, really. Because you don't really know much about it." [PPT5YP, Male]

"I think it was just the fact that if there was anything that was bothering you, you knew you could speak to them about it, and they'd try and give you ways that you could fix it." [PPT8YP, Male]

Participants felt that the education they received had helped to change their perceptions of substances and modify their substance use behaviours.

"It's stopped me from smoking it, because when you see people and how they react, and how bad it could affect you if you're stoned, and just the little things like what it can do to you and stuff. It was putting me off it." [PPT3YP, Male]

"If I didn't have these classes, because some people I know like do smoke weed and that, so I would probably end up getting like trying it and then like getting hooked onto it. So now I've had these classes I don't really want them." [PPT7YP, Male]

"Just helping me think more about, like, why not to do it. Because there's no point in it really." [PPT9YP, Female]

Appointment flexibility

Young people spoke positively about the flexibility of their appointments and sessions, and felt it was appropriate that these were during school time and appreciated that they did not miss out on core subjects.

"They don't take me out of main lessons like English, maths or anything like that; they normally just take me out of a language or something like that." [PPT7YP, Male]

"A lot of the time, it wasn't the same lesson I was getting taken out of. It was, like, different ones, so it wasn't as if I constantly missed one lesson all the time." [PPT8YP, Male]

Awareness of service

Young people we spoke to felt that prior to their engagement with the service, they weren't aware of what was available for support with substance use, and that this wasn't publicised widely.

"I didn't get to learn anything about it, I just got told one day, "Someone's here to see you." So, I just came down." [PPT7YP, Male]

"I think it should be, like, advertised at schools and that. Maybe even if it was just something, like, on the wall, or as an assembly, showing that there actually is stuff out there if you want to go and look for it." [PPT8YP, Male]

Recommendation

Participants awareness of the HART service was the one area that required attention and increased publicity regarding the service offer was recommended. However, HART is unable to progress with this recommendation until the overall service re-design has been completed and the service has been relocated to the new premises in June 2020.

Phase 3: Observations, staff workshop and recommendations for service re-design.

Observations

The practice of having a researcher embedded within HART allowed the research team to better understand the practices, processes and policies in place within the organisation, as well as familiarising the staff with the researcher (LS) to provide a greater understanding of the aims of the research, and to avoid any perceived scrutiny of their practice. This helped the research team to quickly identify and understand staff structures and professional relationships within the service, which contributed substantially to successful recruitment for the study. The embedded research design enabled insightful conversations to occur with HART staff, prompting shared learning, improved understanding, and informing data analysis, whereby qualitative data that were collected from service users could be situated in an appropriate context. Encouraging involvement with HART staff through all stages of the research process in this way, has resulted in improved staff buy-in to the study overall and strengthened ownership regarding the recommendations being made.

Staff workshop

A staff workshop was held with HART staff (n=17). This began with a summary of findings from the behavioural insights survey, qualitative interviews and research assistant observations. Within the workshop, staff had the opportunity to offer any additional comments or experiences about approaches and strategies that have or have not worked in the past. The second half of the workshop involved the presentation of the proposed redesign. Staff then had the opportunity to contribute to the design process by offering any comments, suggestions or changes.

Recommendations for adult services

Administration

People accessing services often have chaotic lives. Inconsistently handing people appointment cards was not always an effective reminder, and service users were concerned that genuinely forgetting appointments (as opposed to choosing to stay away) meant that they had to restart the process, which often involved a delay of several days or weeks.

We are aware that service users not turning up for their appointments has a direct impact on services, both in terms of the cost of rescheduling the appointment and wasted resources of having an empty slot but no service user present.

Recommendation 1: Systematically provide an appointment card for EVERY appointment and send automated text reminders the day before the scheduled appointment. This is likely to be cost effective in terms of time wasted due to missed appointments. Automated texts can also be used to inform service users of cancelled sessions rather than allowing them to travel to find a notice on the door.

To minimise missed appointments:

Appointment cards - need to be given out consistently at the end of every appointment.

Cards need to include the following information:

Next appointment:	
Date:	Time:
Practitioner name:	Location:

Systematic reviews of telephone and text message reminders (Perry et al, 2015) have found that they significantly improve attendance at health care providers, with text messages being as effective as phone call reminders and postal reminders.

Text reminders - All practitioners to use the same text and use consistent wording in all messages sent to service users.

We are expecting you at (location) on (day, date and time). Not attending costs HART approx. £2,960 last month. Please call HART on xxxx if you need to cancel or rearrange.

Recommendation 2: Having a duty worker available and/or fitting in service users to other groups/counsellors was preferred rather than cancelling sessions and may increase retention. Have a 'best practice' guideline to assess all newly-presenting service users within 2 working days of referral.

Recommendation 3: Calculate the cost of each missed appointment and display it clearly within the treatment agency premises for service users to see.

In December 2019 There were 251 missed appointments. Not attending costs HART £2,960.14 Please let us know if you need to cancel or rearrange.

Training

We are aware that as of July 2019, there are currently 295 service users with active prescriptions, but who were not accessing any therapeutic services offered by HART.

Recommendation 4: ALL staff need to use motivational interviewing skills to pro-actively promote that service users in receipt of a script start to engage with psychosocial interventions available within the service.

Examples of motivational interviewing questions to be used:

Discuss the consequences of action and inaction

It may be helpful to ask the client how they imagine their life to be if they continue to drink/use drugs as they have done before.

'What do you think will happen if you continue to drink/use drugs? Where do you see yourself in 3, 6 and/or 12 months' time?'

The stating of a goal can be elicited by questions like

'What do you want your plan for the coming weeks to look like?'

Making a plan to attain the treatment goal.

This is the step in which action plans are made. Reiterate the goal and check it is as closely defined as possible.

'You have decided you want to stop drinking for two weeks; what is going to help you to do that?'

The aim here is for the client to begin to describe how the change is going to take place and the point of asking what or who will help is to focus on building their self-efficacy.

'When are you going to make these changes?'

End the session with a positive affirmation and advise the client that next time you meet you will talk about the progress they have made and their plans for the future. Agree a date and time for the session.

'It has been great to talk to you today about the positive changes you are going to make. I will look forward to hearing about your progress next Tuesday when we meet.

Profile

Few people knew about the presence of the service prior to being referred into it, although there was agreement that there was a need for it.

Recommendation 5: Raise the profile of service, perhaps through GP surgeries, council offices and areas that are viewed routinely by the general public, such as bus shelters, shopping centres.

Even when individuals were accessing services, many still reported that they were unaware of the entire service provision and felt that they could benefit from accessing groups that were available

Recommendation 6: Display the timetable/provide ALL service users with details of the whole service offer (including groups etc.) and provide a clear expectation of what treatment will entail. (An example of the timetable is included in appendix 4).

The setting

A major barrier for many of the service users, both in relation to initially accessing treatment and then continuing it, was the Whitby Street site. Participants reported being assaulted outside the building and feeling unsafe while inside. One service user refused an offer of treatment because it was going to be delivered at Whitby Street. There were also complaints about the interior of the building both in terms of the lack of space in some of the rooms where group sessions took place, as well as the decoration of the interior.

Recommendation 7: While finding alternative premises is likely to be costly and therefore unfeasible, some visible investment should be considered to improve safety of staff, volunteers and service users. Improving the feel of the building, by making cosmetic changes to the interior, such as improving the room for mindfulness, would also improve the experience of service users. A review of the space usage and/or the size of groups should also be considered.

Organisation

Some service users felt that separating service users according to their stage of recovery would mean that those further on in their recovery would have reduced exposure to more active substance users and so be less likely to relapse and/or feel intimidated.

Recommendation 8: Assess whether it is practical and helpful to stream service users according to their stage of recovery and examine the effect of this on retention.

Those referred for treatment for alcohol use reported feeling uncomfortable and unsafe around those referred for drug use. They reported drug dealing outside the premises and use on it, as well as aggression from drug users.

Recommendation 9: Consider running separate sessions for those treated for alcohol and drug use as this may increase retention.

Being unable to access services at weekends was cited by several as an issue, especially for people with jobs or families to look after. There was concern that weekends were a key area where the lack of provision could have an impact on whether people choose to use drugs and/or alcohol. Opening the service during weekends would also enable people to drop in and see fellow service users who were cited as a key element of their support network. According to one service user, “The whole point of people wanting to stop taking drugs is to have something else to do. If there’s nothing for someone to do, then they’re just going to go back to using.”

Recommendation 10: Open the service at weekends. While this will incur additional costs, even if it is only used as a drop in/social space, this would be a further area of support for those in treatment and likely to increase retention.

Timeframe for implementation of recommendations:

Stage 1 changes to implement from Wednesday 1st September 2019;

Recommendation 1: Provide an appointment card for EVERY appointment and issue automated text reminders the day before the scheduled appointment. This is likely to be cost effective in terms of time wasted due to missed appointments. Automated texts can also be used to inform service users of cancelled sessions rather than allowing them to travel to find a notice on the door.

Recommendation 2: Having a duty worker available and/or fitting in service users to other groups/counsellors was preferred rather than cancelling sessions and may increase retention. Have a 'best practice' guideline to assess all newly presenting service users within 2 working days.

Recommendation 3: Calculate the cost of each missed appointment and display it clearly within the treatment agency.

Recommendation 4: All staff need to use motivational interviewing skills to pro-actively start to promote that service users in receipt of a prescription for drug treatment to start to engage with psychosocial interventions available within the service.

Stage 2 changes to implement from Tuesday 1st November 2019;

Recommendation 5: Raise profile of the service, perhaps through GP surgeries, council offices.

Recommendation 6: Display the timetable/provide ALL service users with details of the whole service offer (including groups etc.) and provide a clear expectation of what treatment will entail.

Recommendation 7: While finding alternative premises is likely to be costly and therefore unfeasible, some visible investment should be considered to improve safety of staff, volunteers and service users. Improving the feel of the building, by making cosmetic changes to the interior, such as improving the room for mindfulness would also improve the experience of service users. A review of this space usage and/or the size of groups should also be considered.

Recommendation 8: Assess whether it is practical and helpful to stream service users according to their stage of recovery and consider running separate sessions for those treated for alcohol and drug use. Once implemented examine the effect of this on retention rates.

Recommendation 9: Open the service at weekends. While this will incur additional costs, even if it is only used as a drop in/social space, this would be a further area of support for those in treatment and likely to increase retention.

Recommendations for young people's services

Young people felt that the support available should be more widely publicised, and that education around substances should be delivered more regularly, to help prevent young people from engaging in potentially risky substance use.

Behavioural Insight Nudges:

We are aware that service users failing to turn up for their appointments has a direct impact on services; methods need to be used to increase retention rates.

- Nudge 1 (Recommendation 1) Appointment cards: Systematically provide an appointment card for every appointment and send automated text reminders the day before the scheduled appointment. Cards need to include the following information:

Next appointment:	
Date:	Time:
Practitioner name:	Location:

- Nudge 2 (Recommendation 1) Text reminders - All practitioners to use the same (automated) text and use consistent wording in all messages sent to service users.

> We are expecting you at (location) on (day, date and time).
> Not attending costs HART approx. £2,960 last month.
> Please call HART on xxxx if you need to cancel or rearrange.

- Nudge 3 (Recommendation 3) Display the cost of missed appointments - Calculate the cost of each missed appointment and display it clearly within the treatment agency.

  There was a total of 251 missed appointments in December 2019, @ £11.79 per half hour appointment with a total loss to the service of £2,960.14. This would be displayed as follows:

> In December 2019
>
> There were 251 missed appointments.
>
> Not attending costs HART £2,960.14
>
> Please let us know if you need to cancel or rearrange.

- Nudge 4 (Recommendation 6) Display the timetable of service offer and use Motivational Interviewing skills to engage service users in Psychosocial Interventions (Recommendation 4)- provide ALL service users with details of the whole service offer (including groups etc.) and provide a clear expectation of what treatment will entail.

Nudge 1 was implemented from Wednesday 1st September 2019

Nudge 2: Unfortunately, an application for funding to send out text messages was not successful; therefore, this nudge was not implemented. However, the use of reminder text messages has been written into the service re-design to be implemented in June 2020.

Nudge 3: From the 1st December 2019, the cost of missed appointments has been calculated and displayed in the main reception and waiting room of HART services. HART have committed to continuing to calculate this every month and display it.

Nudge 4: The timetable displaying the entire service offer has been displayed since 1st November 2019.

In addition, staff started pro-actively using motivational interviewing to encourage clients previously only in receipt of a prescription to access the psychosocial interventions service offer that was available (recommendation 5)

Wider service re-design recommendations:

Recommendation 2: Having a duty worker available and/or fitting in service users to other groups/counsellors was preferred rather than cancelling sessions and may increase retention. Have a 'best practice' guideline to assess all newly-presenting service users within 2 working days.

Actions taken:

- There is a full duty rota in place at all times.

Impact of this:

- The duty rota ensures that appointments are available on first contact.
- The system now in place means that each client will have a key worker from day one and assessed by the duty team.
- Clients are usually seen within 2-5 days (max) of first contact.

Recommendation 5: Raise the profile of the service, perhaps through GP surgeries, council offices.

Actions taken;

- Unfortunately, it was not possible to action this recommendation until the new service and premises are in place
- HART will be launching our full new service and ensuring that organisations around the town are aware of what we have available and all the referral routes.

Recommendation 7: While finding alternative premises is likely to be costly and therefore unfeasible, some visible investment should be considered to improve safety of staff, volunteers and service users. Improving the feel of the building, by making cosmetic changes to the interior, such as improving the room for mindfulness would also improve the experience of service users. A review of this space usage and/or the size of groups should also be considered.

Actions taken;

- HART have found two new premises to run our recovery and treatment from.
- HART won't be doing any updates to the Whitby Street building as this will be vacated within a couple of months and staff and clients will benefit from a new building that has been secured to our use.

Recommendation 8: Assess whether it is practical and helpful to stream service users according to their stage of recovery and consider running separate sessions for those treated for alcohol and drug use. Once implemented examine the effect of this on retention rates.

Actions taken:

- Once the new premises are open, clients will have the benefit of attending settings based on the stage of their recovery.
- As part of the building changes there will be a dedicated building focusing more on recovery so that people are not having to mix with other clients who are not at that stage of treatment.
- Alcohol clients will be offered completely separate treatment depending upon their needs this allows clients to recover more at ease.

Recommendation 9: Open at weekends. While this will incur additional costs, even if it is only used as a drop in/social space, this would be a further area of support for those in treatment and likely to increase retention.

Actions taken;

- There is currently one evening per week that is open to clients until 8pm.
- There is currently a full service open on Saturdays until 1pm.
- These additional times now allows for those who work or have family responsibilities to access the support and treatment required.
- This is something that will continue going forward.

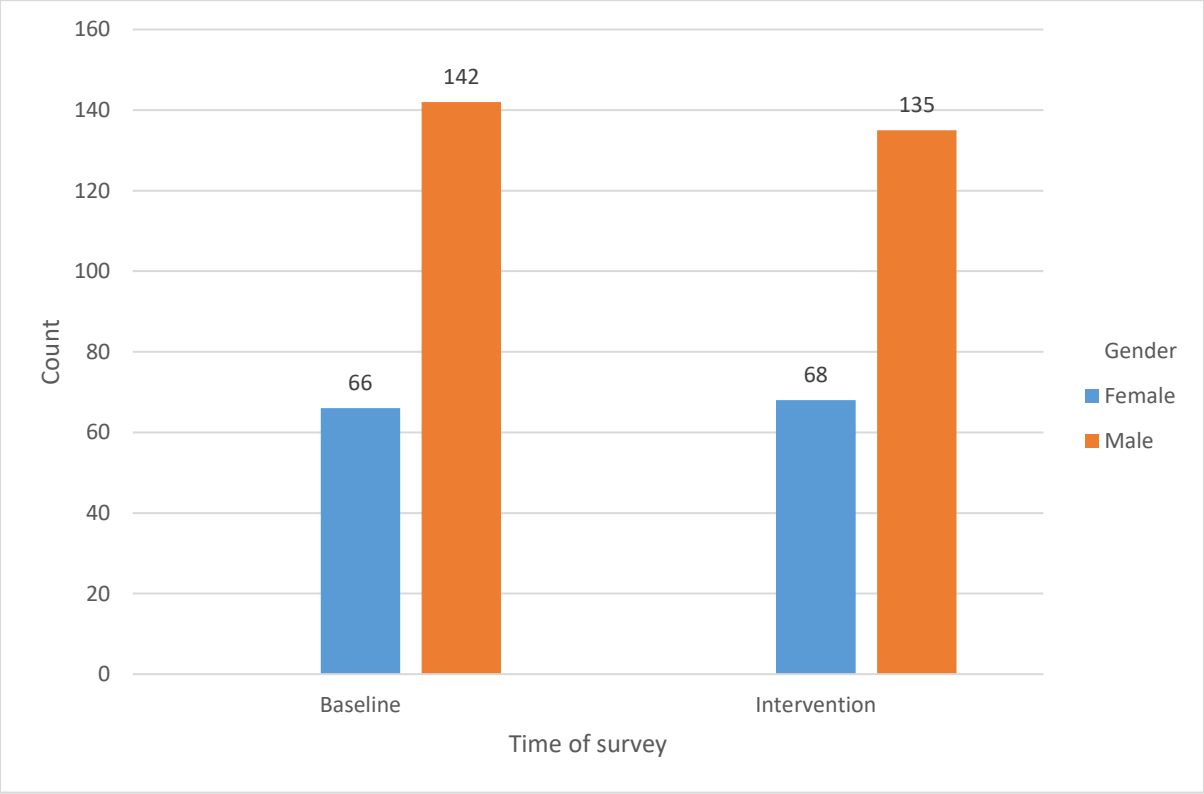
Phase 4: Evaluation of routine data and Impact

Routine National Drug Treatment Monitoring System (NDTMS) data was collected from HART, baseline data was collected for September - December 2018, prior to recommendations being implemented, and September- December 2019, following the implementations of recommendations. All numbers presented in square brackets in the figures are NDTMS codes.

Comparison of baseline and intervention data

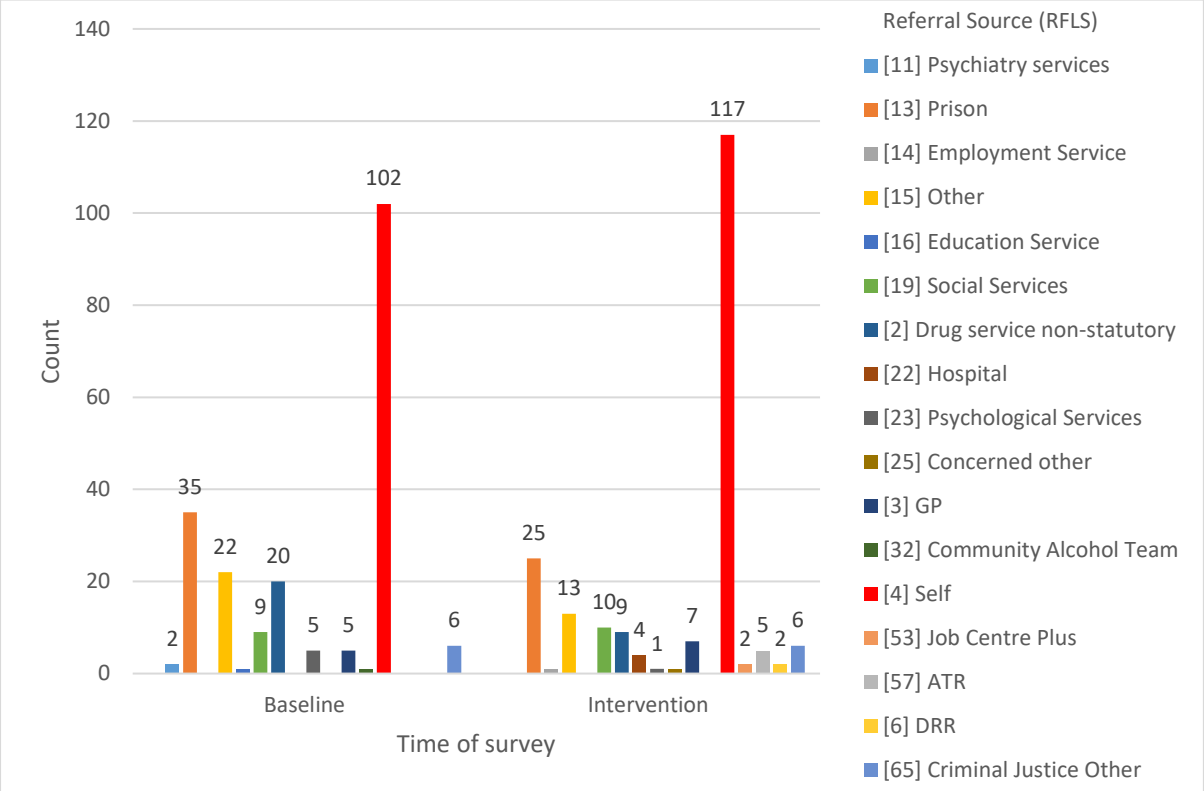
Overall, 411 people were included in the analysis. These consisted of 208 (66 women, 142 men) at baseline, and 203 (68 women, 135 men) after changes had been made in the service (for ease and clarity, we will refer to this group as the intervention group). As can be seen in Figure 1, below, the distribution of services users was essentially the same at both time points (χ^2 (1) = .146, p = .702). The baseline and intervention groups had almost exactly the same age (baseline mean = 38.81 years, SD = 10.41; intervention = 38.5 years, SD = 9.9).

Figure 1. Numbers of participants at each time point, by gender.



Referral pathways were also examined between baseline and intervention (see Figure 2). These showed slight differences from baseline to intervention, with an increase in self-referrals and decreases in referrals from prisons and non-statutory drug services. The increase in self-referrals could be due to an increase in the profile of the service, and/or word of mouth. There was a slight increase in referrals from other (non-prison) criminal justice, although this did not make up for the reduction in prison referrals.

Figure 2. Referral route at baseline and intervention.



In terms of the primary substances that people referred to the service were taking, heroin remained the most common (see Figure 3) and had also increased in prevalence from baseline to intervention. Over the same period, referrals for beer/cider reduced as did referrals for spirits.

Comparisons of the reasons for discharge from the programme show few differences between baseline and intervention (Table 5). Of the 208 at baseline and 203 at intervention, most were still retained within the service and actively engaging with it (referred to in the table as 'ongoing'). In addition, there were no differences in the numbers of people who had completed the programme of treatment between those at baseline and those after the interventions had been implemented.

Figure 3. Primary substances that service users were referred for.

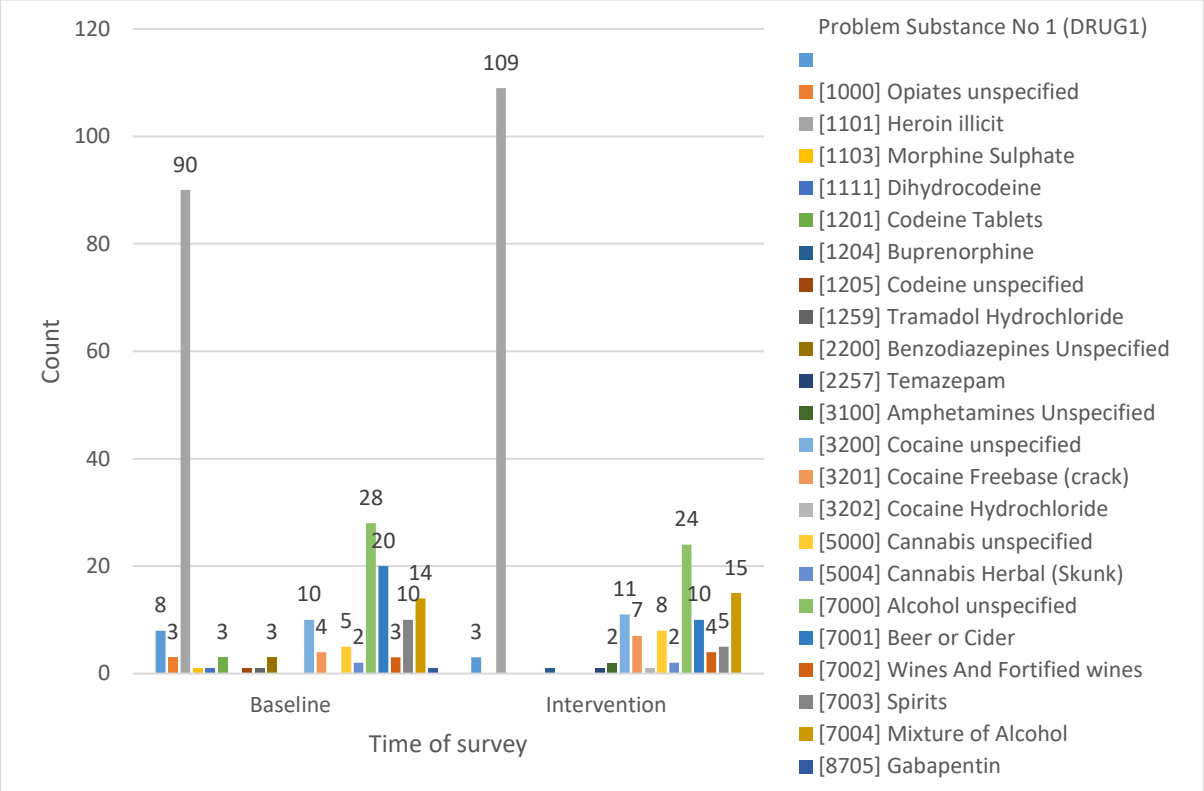


Table 5. Discharge Reasons (DISRSN) for Baseline and Intervention.

	Baseline		Intervention	
	Frequency	Percent	Frequency	Percent
[80] Treatment completed - drug-free	2	1	3	1.5
[81] Treatment completed - alcohol-free	1	.5	1	.5
[82] Treatment completed - occasional user (not heroin or crack)	2	1	1	.5
[83] Transferred - not in custody	9	4.3	8	3.9
[84] Transferred - in custody	3	1.4	3	1.5
[85] Incomplete - dropped out	23	11.1	21	10.3
[87] Incomplete - retained in custody	5	2.4	1	.5
[89] Incomplete - client died	1	.5	1	.5
Ongoing	162	77.9	164	80.8
Total	208	100	203	100

In a final analysis, we explored whether the interventions had led to a decrease in the time between referral and the date the NDTMS episode opened. This analysis was complicated by issues with the data, where for some service users an NDTMS episode was opened before referral had taken place. These were assumed to be keying errors and so were removed from the analysis[1]. Although the mean time between referral and an NDTMS episode being opened was slightly shorter for the intervention group (7.12 days, SD = 13.54) than the baseline group (7.98, SD = 8.15), this difference was not significant, t (1, 392) = .76, p = .446.

The overall aim of the project was to improve treatment uptake amongst individuals referred to/accessing HART by implementing the nudges and recommendations outlined throughout the report. The number of missed appointments between September-December 2018 was 818/5611 (14.6%), the equivalent timeframe September- December 2019 was 679/4411 (15.4%). As can be seen in Table 5, the number of treatment completers was the same at baseline and intervention (n=5), the number of individuals registered at treatment incomplete was 29 (14%) at baseline and 23 (11.3%) at intervention and the number of individuals engaging in treatment was 162 (77.9%) at baseline and 164 (80.1%) at intervention. We are aware that the number of missed appointments has risen by 0.8%, yet the numbers engaging in treatment has increased by 2.2%. This is because the service users attending HART often have multiple appointments with different members of staff within the service each week, they may not attend every appointment as scheduled, but they are engaging well with treatment overall.

Conclusion

We are aware that it was not possible to introduce text message reminders as planned, we believe that this would have had the biggest impact on treatment attendance due to being able to remind clients of appointments and re-iterate the cost of missed appointments. The nudges currently implemented all required clients to be actively attending the service to be provided with an appointment card, view the displayed timetable and the cost of missed appointments statement.

[1] With the negative times kept in a separate analysis, the differences between the groups was larger but still was not statistically significant: baseline group (7.40, SD = 11.55), intervention group (5.54 days, SD = 17.51), t (1, 398) = 1.25, p = .211.

End of project recommendations

Phase 1 and 2 of the study highlight several perceived barriers to successful engagement in treatment services. Following the implementation period and liaising with HBC staff, we recommend continuing to implement:

- Nudge 1: The systematic use of appointment cards
- Nudge 3: Displaying the cost of missed appointments
- Nudge 4: Displaying the timetable of the service offer and use motivational interviewing skills to engage service users in psychosocial Interventions.

We also recommend continuing to implement:

- Recommendation 2: Having a duty worker/duty rota in place at all times to facilitate the prompt response to clients.
- Recommendation 9: Extended opening hours to accommodate the needs of clients with family/work commitments.

Using the findings from the survey and qualitative interviews, we also recommend the implementation of:

- Nudge 2: Use of text message reminders for all appointments

And, once relocation is completed (Recommendation 7) to implement

- Recommendation 5: Raising the profile of the service
- Recommendation 8: Stream service users according to their stage of recovery.

Further Research

We recommend further research and analysis to determine the extent to which the changes made as part of the overall service redesign due to take place June 2020 and the recommendations made as part of this study have affected the service. Specifically whether due to availability of a duty worker the wait times between first contact and initial appointment have reduced; whether service users are more likely to continue to access treatment (due to the systematic use of appointment cards and text message reminders); and whether the rate of successful outcomes has improved, due to practitioners using motivational interviewing skills to engage service users, the relocation of services to new premises and streaming service users according to their stages of recovery.

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Appendix 1: Behavioural Insights Study Survey

Instructions: Please complete the below questions as honestly as possible and then place the questionnaire in the envelope provided and hand in to reception.

If there are any questions you do not wish to complete, please tick the 'prefer not to say' option and move on to the next question.

1. Age: ……. years

2. Gender (please tick)

☐ Male ☐ Female ☐ Transgender

☐ Prefer not to say ☐ Not Applicable

3. Employment status (please tick)

☐ Employed full time ☐ Employed part time ☐ Self-employed

☐ Full time education ☐ Part time education ☐ Unemployed

☐ Prefer not to say ☐ Not Applicable

4. Relationship Status

☐ Married ☐ Cohabiting ☐ In a relationship
☐ Single ☐ Prefer not to say ☐ Not Applicable

5. How many (if any) dependent children do you have?

……. (number) ☐ Not Applicable ☐ Prefer not to say

6. Please indicate which (if any) of the below substances you currently use

☐ Alcohol ☐ Tobacco ☐ Marijuana
☐ ecstasy ☐ MDMA ☐ heroin
☐ GHB ☐ Ketamine ☐ PCP
☐ LSD ☐ mushrooms ☐ Anabolic steroids
☐ Poppers ☐ Cocaine ☐ Methamphetamine
☐Benzodiazepines ☐ Amphetamines ☐ Crack Cocaine
☐ Methadone ☐ other opioids ☐ other
☐ other stimulants ☐ Prefer not to say ☐ Not Applicable

7. **Please indicate your treatment status:**

☐ Receiving Treatment at HART
☐ Attending for Assessment
☐ Declined All Treatment
☐ Took up treatment elsewhere
☐ Prefer not to say
☐ Not Applicable

8. **Please use this space to provide us with any comments of feedback about the service especially including factors that influenced or could influence your decision to take up treatment:**

9. Please read the statements below carefully and rate how strongly you agree or disagree with each by circling the appropriate number. If you feel the statement does not apply to you, please tick 'not applicable'. If you don't want to answer, please tick 'prefer not to say'.

1.	**It is easy for me to get to and from appointments at the treatment centre**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
2.	**It is expensive for me to get to and from appointments at the treatment centre**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
3.	**Appointments can/do fit in around the rest of my life**						
1	2	3	4	5	6	7	☐ Not Applicable

Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
4.	**Treatment and appointments will/do take up a lot of my time**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
5.	**Treatment and appointments will/do take up a lot of my energy and effort**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
6.	**It is/would be useful to receive text-message reminders the day before appointments**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
7.	**It is/would be useful to receive appointment letters from the service**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
8.	**If I knew how much each appointment cost to provide I'd be more likely to attend**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
9.	**Treatment will be beneficial to me**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
10.	**Treatment has been beneficial for other people like me**						
1	2	3	4	5	6	7	☐ Not Applicable

Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
11.	**Treatment will not work for me**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
12.	**Treatment has been beneficial for other people like me**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
13.	**Treatment doesn't work for people like me**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
14.	**Staff explained things to me well**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
15.	**I would have liked more information about what would happen**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
16.	**I had to wait a long time for my first appointment**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
17.	**I have to wait a long time between appointments**						
1	2	3	4	5	6	7	☐ Not Applicable

Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
18.	**I am motivated to change my substance use**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
19.	**I am confident I can change my substance use**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
20.	**I feel prepared to take up treatment**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
21.	**I have experienced negative effects of substance use**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
22.	**I want to make the most of the treatment offered to me**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
23.	**Now is the right time for me to change my substance use**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
24.	**My family are aware that I have been referred to the treatment service**						
1	2	3	4	5	6	7	☐ Not Applicable

Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
25.	**My friends are aware that I have been referred to the treatment service**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
26.	**My family are supportive of me attending treatment for substance use**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
27.	**My friends are supportive of me attending treatment for substance use**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
28.	**I have a lot in common with others attending substance use treatment**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
29.	**I'm not like other people who are getting substance use treatment**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
30.	**I have a positive view of people seeking treatment for substance use**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
31.	**Substance us is part of who I am**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say

32.	**Substance use is a big part of my life**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
33.	**Staff at the treatment centre are friendly**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
34.	**Staff at the treatment centre treat me with respect**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
35.	**Staff at the treatment centre are easy to talk to**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
36.	**Staff at the treatment centre are non-judgemental**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
37.	**I was made to feel welcome when I arrived**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
38.	**My privacy will be protected**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say

39.	**Things I share with staff during treatment will remain confidential**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
40.	**I feel I can be honest with staff at the treatment centre**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
41.	**I have experienced negative effects of substance use**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
42.	**I feel 'on edge' or anxious at the treatment centre**						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say
43.	I feel relaxed and comfortable at the treatment centre						
1	2	3	4	5	6	7	☐ Not Applicable
Strongly Disagree	Disagree	Disagree a Little	Neither agree nor disagree	Agree a Little	Agree	Strongly Agree	☐ Prefer not to say

Appendix 2: Young Person Interview Topic Guide

Part 1 – Creating a timeline

Introduction:

To start I wondered if we could talk a little bit about your life in general and draw up a sort of timeline of your life. Is that OK?

1. So how old are you now?
2. Are you still at school/college?
3. When did you start/finish school?
    a. What about primary school?
4. Who do you live with at the moment?
    a. (If siblings ask) Are they older or younger?
    b. (for younger ask) When were they born?
5. Have you always lived with the same people?
    a. When did you move?
6. Have you ever moved house?
    a. When did you move?
7. Are there any other important things that you think should be on that timeline?

Now that we have that can we look at how substance use fits in with your life?

Part 2 – Adding substance use to the timeline

Okay so next what I'd like to do is talk a little bit about any alcohol and drug use and if you have drunk alcohol or used drugs see where that fits on the timeline. Is that OK? Remember if there's anything you don't want to answer just say so and we'll move on.

1. Do you drink alcohol?
    a. (If yes) When did you have your first drink?
    b. (If no) have you ever had a drink of alcohol?
2. Have you ever taken any other drugs?
    a. Would you mind telling me which drugs you have taken?
    b. And when did you first start taking …….?
    c. Do you still take ……?
3. (If still using) Is your drinking/drug use something you want to change?

Part 3 – Experience of the treatment service

Thank you for doing that with me, it is really helpful. I'd now like to ask you a little bit about your experience of the treatment service. Is that OK?

1. Firstly, is there anything that you think could be improved about the treatment centre?
2. Could you tell me how you came to be referred to the treatment service?
    a. Was that the result of a specific event or a general build up over time?
3. Where you given an assessment appointment?
    a. How did you find out about that? By letter, phone call, text message?
    b. Did you go to the appointment?

        i. Was there anything that made you decide to go/not go?
        ii. Was there anything that could have changed your mind?
    c. Could you tell me a little more about that appointment like what it involved?
        i. How did you feel going along to that appointment?
        ii. How did you feel talking to staff during that appointment?
4. Have you had any more appointments at the treatment centre?
    a. Could you tell me a bit about them?
    b. And did you go to those appointments?
        i. Was there anything particular that made you decide to go/not go?
        ii. Was there anything that could have changed your mind?
5. Do you ever see or talk to anyone else that goes to the treatment centre?
    a. Could you tell me a little bit about what you think of them, for example do you get on with them?
6. Thank you for sharing that with me. Is there anything you'd like to talk about before we finish?

Appendix 3: Adult Interview Topic Guide

1. Thank you for agreeing to talk to me today. To start us off would you like to tell me a little bit about yourself?

2. Thank you that's great. So, I have some questions to ask about your experience with the treatment service but first I wondered if there is anything that you think could be improved about the treatment centre?

3. And is there anything that you like about the treatment centre?

4. Could you tell me how you came to be referred to the treatment service?

    a. Was that the result of a specific event or a general build up over time?

5. Where you given an assessment appointment?

    a. How did you find out about that? By letter, phone call, text message?

    b. Did you go to the appointment?
        i. Was there anything that made you decide to go/not go?
        ii. Was there anything that could have changed your mind?

    c. Could you tell me a little more about that appointment like what it involved?
        i. How did you feel going along to that appointment?
        ii. How did you feel talking to staff during that appointment?

6. Have you had any more appointments at the treatment centre?

    a. Could you tell me a bit about them?

    b. And did you go to those appointments?
        i. Was there anything particular that made you decide to go/not go?
        ii. Was there anything that could have changed your mind?

7. Do you ever see or talk to anyone else that goes to the treatment centre?

    a. Could you tell me a little bit about what you think of them, for example do you get on with them?
8. Is there anything you can think of that would influence whether people would start substance use treatment?

    a. What about things that would put them off?
9. And is there anything that would encourage people to keep attending?
    a. What about put them off or make the quit?

10. Thank you for sharing that with me. Is there anything you'd like to talk about before we finish?

Appendix 4: Groupwork timetable

Time	Monday	Tuesday	Wednesday	Thursday	Friday
10:30-12:30	Mindful Monday Check-in 11:30- 12:30 Mindfulness **	Conflict	Understanding Your Addiction	Mutual Aid 10:30-11:30 Advice and Guidance 11:30-12:30 (integrated Service User Group first Thursday of the month)	SMART **
12.30-13.00					Food and Mood (cooking time)
13:00-14:00		Well-being / Recovery Football @ The Domes		Introduction to Thinking Skills **	Food and Mood eating plus psycho-education
14:00-14:15					
14:15-15:15	Complimentary Therapies	Acupuncture		Introduction to Recovery **	Acupuncture / Veteran's Group
15:15-16:15	Complimentary Therapies/ Indian Head Massage		Acupuncture / Badminton @ Mill House 15:00	Complimentary Therapy/ Tai Chi	Relaxation / Veteran's Group
16:15-17:00	SMARTTALK (starts at 16:00) (for 16 – 20 year olds ONLY) **				
18:00-20:00	SMART ** / Complimentary Therapy (starts at 19:00)				** = OPEN GROUPS

Please note- If you attend a session more than 10 minutes late you will not be able to attend the session

Please don’t attend any earlier than 10 minutes before your group session is due to start otherwise you will be asked to leave and return at a later time.